

GAPSdiet.com FAQs

Please find below GAPS questions that are not addressed in the GAPS book. Each month new questions are answered by Dr. Natasha Campbell-McBride and posted below. Questions may be submitted to ask@GAPSdiet.com. Only general GAPS questions, not specific to individual medical concerns/conditions will be considered. Please contact a Certified GAPS Practitioner if you have a personal health question or concern. Please do not submit a question before reading the GAPS book. No questions will be answered that are addressed in *Gut and Psychology Syndrome* by Dr. Natasha Campbell-McBride.

Please note that the answers provided below are the opinion of Dr. Natasha Campbell-McBride. This information has not been evaluated by the Food and Drug Administration.

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MOST RECENTLY ADDED FAQs

Do you have any recommendations on how to deal with blepharitis topically while following the diet?

I recommend using an organic tea bag, plain black or green tea will do (ordinary paper tea bag). Get the teabag wet with some hot boiled water and apply to your eyes gently wiping them with this teabag. Throw the teabag away after using it for a few minutes. Keep wiping your eyes with tea bags several times a day until blepharitis is gone. Tea has strong antiseptic activity and will sooth the eyes and reduce inflammation.

I understand wheat germ is not GAPS friendly, however, is wheat germ oil allowed?

Yes, the oil is allowed. However, it is difficult to get completely clean oil without any residue of other parts of the wheat in it. So, make sure that your digestive system has healed quite a bit before trying the wheat germ oil.

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These statements have not been evaluated by the Food and Drug Administration. This information is opinion and is not intended to diagnose, treat, cure, or prevent any disease.

I have had a vaginal cyst for almost 8 months now. It has been infected and drained twice but it is still there and painful at times. Do you have any idea what causes these and how to remove them? Can the gaps diet help?

The diet will improve your immune system's ability to fight infections, so it is worth doing it. But the most important thing to do is to populate your vagina with beneficial flora, so it guards that place and does not allow any infection in the first place. You can do it by using two methods. First: use homemade raw kefir or yoghurt or sour cream; soak a piece of cotton wool in one of these foods and insert it into your vagina as high as you can reach with your fingers. After a few minutes, remove the tampon. Second: use a good quality commercial probiotic; insert 1-2 capsules into your vagina as high as you can a leave them there to dissolve. It is best to do both procedures at bedtime so you don't need to get up after the application for a few hours. If there is a discharge from the vagina it is a good idea to rinse it first with strong organic tea (plain black tea or green tea). Most enema kits have an attachment for doing vaginal douching or you can get a kit specially designed for that. Keep populating your vagina with beneficial flora until the problem has gone.

Other than fasting one day a week, do you have any other recommendations for people suffering from adrenal insufficiency and low cortisol levels?

Cortisol is made from cholesterol in the adrenals. People with poor adrenal function need to increase their fat and cholesterol consumption: plenty of animal fats, eggs, oily fish, red meats with fat on them, raw butter, sour cream and ghee. If you find it difficult to digest fats, supplement with digestive enzymes and ox bile at the end of every meal.

One of the major functions of adrenals is maintaining our blood sugar level, so people with exhausted adrenals often have unstable blood sugar levels manifesting with many unpleasant symptoms. I recommend making a mixture of raw butter or coconut oil with some raw honey: get the butter (or coconut oil) soft at room temperature and mix a little honey according to your taste. Put this mixture into a glass jar and carry that jar with you everywhere. Eat 1-2 teaspoons every 15-20 minutes all day long. This mixture will maintain your blood sugar at a normal level and help your adrenals recover. If for whatever reason you cannot eat honey replace it with some dried fruit (dates, figs or raisins); soak the fruit in a little hot water, blend and add to butter or coconut oil. Usually it takes 2-8 weeks of eating this mixture for a person with unstable blood sugar to recover, providing that they follow the GAPS Diet.

There are some herbal supplements (called adaptogens) on the market which will also help with adrenal insufficiency, such as ginseng, rhodiola, medicinal mushrooms, sea buckthorn, goji, jujube, ginkgo, aswagandha, maca, bitter melon, and many more.

A lot of sleep is absolutely essential for a person with adrenal insufficiency! It is imperative to make time to have a nap during the day. It is essential to go to bed no later than 9 pm. It is essential to make sure that the place where you sleep is free from noise, pollution and all electronic devices (unplug them from the wall).

Finally, make sure that your bowel is functioning well, as most toxins which undermine your adrenal function are coming from the bowel. A course of enemas or colonic irrigation may be essential for you to recover. Coffee enemas can be particularly helpful (please see the relevant section in these FAQs).

For someone who has difficulty digesting fats, is eating organic bitter foods (dandelion leaves, kale, etc) prior to a meal just as helpful or is the alcohol in bitters important as well?

No, alcohol is not needed. Please read the sections on liver and gall bladder in these FAQs to understand why your fat digestion may not be perfect and what you can do about it.

I have a question about psoriasis and whether you have seen an improvement in on the GAPS diet. I have been on the diet for 3 months now, and whereas other problems (digestion, anxiety) have improved dramatically, my skin condition seems to have gotten worse, and I see other skin issues popping up (skin tags, moles). Could the worsening in my skin condition be a sign of detox, or do you think there is additional things I need to be doing to clear up my skin?

In the book called *GAPS Stories* there is a nice story of full recovery from psoriasis; please read it. Also please read the section 'skin' in the FAQs. Our skin is a cleansing organ. In a person with psoriasis the skin is a major venue for removing toxins. As these toxins move through the skin they cause damage and the immune system deals with that damage by using inflammation and autoimmunity. Psoriasis is classified as an autoimmune condition. Autoimmunity is born in the gut and in order to re-balance your immune system you have to focus on healing the gut, so GAPS Protocol is appropriate for treating psoriasis.

As you have started the protocol you are going through the die-off period, which increases the amount of toxins in the body; that is why your skin problems got worse. You need to give it more time and continue healing your gut; this will remove the main source of toxicity in your body. In the meantime it is a good idea to assist your body in removing toxins which are already there, toxins which you have accumulated for years prior to starting the GAPS Protocol. Please read the chapter on detoxification in my book and follow the advice there. There are also some supplements you can try which can help you to unload toxins. Chlorella is very helpful, I would suggest to get it as a powder and take 3 tablespoons a day. Zeolite has a good ability to remove toxins out; I recommend to find Nano Zeolite (such as ACZ Nano, resultsrna.eu) and take it for a few months. A

good antioxidant formula will also help, such as Cascading Revenol from Neways. With all of these detoxifying supplements it is a good idea to start from a small dose and gradually increase it to a therapeutic level.

And of course one of the most powerful ways to remove toxins is regular enemas, particularly coffee enemas. Please read about it in the relevant section in these FAQs.

Many of us are buying meat directly from a farmer. This means we're dealing with a lot of meat at once, such as a half (or a whole) steer or hog. Can you please give your opinion on pressure canning meats and meat stock/bone broth? Some of us live in areas with frequent power disruptions or we don't have extra freezer space. When I've canned stocks/broths in the past I've noticed that it still gels so I'm hoping that means it still has the good qualities.

Canning is an old way of preserving meat; it was used widely before freezers were invented. As long as you use glass jars instead of metal or plastic, it is a very good way to preserve your meat and meat stock. Make sure to sterilize the jars before using them and pasteurize the whole thing before sealing the tops. The juices in these jars will turn gelatinous, which is normal. You can keep them in a cool/cold place for at least a year. After opening every jar smell it and make sure that the consistency of the meat and jelly has not changed. Generally it is safe to use this method.

I read that on the low-carb diet thrombosis may occur. What is your opinion? Have you got any advice for an enteral feeding patient?

Before humanity invented processed foods venous thrombosis was very rare; now it is an epidemic. The major cause of this epidemic is consumption of processed foods. There are other contributing factors, such as pharmaceutical drugs, chemicals in the environment, electro-magnetic pollution, and pretty much the result of everything else we humans are doing on this planet. Here we will focus on the diet.

Processed carbohydrates make the bulk of processed 'foods' and they are the major cause of all chronic illness in the world. They make the blood 'thick and sticky' and lay the ground for thrombosis. Based on mounting evidence of how harmful processed carbohydrates are the low-carb diets were born.

Another issue is low-fat propaganda. In order for your blood to flow you need to eat plenty of natural fats. Majority of people are not eating natural fats, instead they are filling up on processed vegetable oils, which are a very important cause of all chronic illness in the world including thrombosis.

An increasing number of chemicals are added to processed foods, many of which are known to cause poor blood flow and thrombosis. Newly invented processing procedures are producing an increasing array of processed and chemically mutilated 'food' ingredients, all of which cause disease.

So, whatever diet one is following, if the person is eating processed foods they are putting themselves at risk. That includes low-carb diets. In order to make sure that you don't develop disease it is the quality of what you eat you need to focus upon. If everything you eat is freshly prepared (preferably at home) from fresh best quality natural (unprocessed!) ingredients then you don't need to worry about any illness from that diet.

Enteral feeding refers to feeding a person through a tube, inserted through the nose all the way into the stomach. This is done for people who cannot eat themselves (usually due to damage or surgery in their mouth and throat). GAPS Introduction Diet is perfect for enteral feeding. Meat stock, blended soups, bone broth, kefir, yoghurt are all liquid or soft-pure consistency and can be administered through a tube.

Enteral feeding is essential in many life-saving situations; the problem is what our mainstream medicine feeds through the tube. Usually it is a commercially prepared chemical concoction, which has plenty of 'scientific' marketing material behind it claiming to provide 'all the necessary nutrients'. It is an ultimate processed 'food', and processed food is the last thing any person recovering from an illness needs.

A few years ago I had a turbinate reduction procedure and was believed to be diagnosed with "empty nose syndrome." Due to dry throat, can I make up my own saline solution with whey, baking soda, and kefir? Do you recommend putting probiotics in a netti pot (for a nasal wash) to introduce good flora?

Turbinates are essential structures in the nose which make the air moist and warm as you inhale. When a person has food allergies and intolerances these structures can be swollen, and our medicine removes them or reduces their size. Empty nose syndrome is an iatrogenic condition when turbinates are removed and the person has a very dry nose and throat. Yes, you need to make sure that your nose is moist and populated with beneficial microbes all the time. So, use whey, sour cream, kefir and / or commercial probiotics inside your nose every day. You can add them to the spray bottle you use or in some warm water to wash the nose inside. Also apply some pure animal fat inside your nose every day: raw organic sour cream, cultured organic ghee, tallow, emu oil, pork fat, lamb fat and any other animal fat. You can also use coconut oil. At bedtime try to apply some raw honey: dissolve in a little warm water and spray inside your nose.

Are there any specific supplement recommendations for menstrual cramps, bloating, and pain?

GAPS patients have many toxins in their bodies which interfere with the hormonal balance. This leads to various hormonal abnormalities such as menstrual problems. Long term it is important to go through the GAPS Nutritional Protocol to eliminate the problem permanently. Short term, when the menstrual cramps, bloating and pain have already started, I recommend to do a good cleansing enema, finishing off with a coffee enema. You may want to do these enemas daily while your menstrual problems last. Eat rich soups and stews with plenty of animal fat. Eat eggs and unprocessed bacon for breakfast. Remove fruit from the diet apart from freshly pressed juices. As supplements take cod liver oil, fish oils with some evening primrose oil added and a good magnesium supplement.

What do you think about Zeolite? Is it GAPS legal?

I use Nano Zeolite. It is a good detoxifying remedy for removing toxic metals and many other unhealthy chemicals from the body. It is safe and can be quite effective.

I wanted to know if you have had a patient with Multiple System Atrophy get on GAPS and survive.

I have no experience in treating this condition with the GAPS Nutritional Protocol. However, I would recommend trying it starting from the Introduction Diet. I have had some success in treating Parkinson's disease with the GAPS Protocol. Though MSA is considered to be a different disorder many symptoms are similar to Parkinson's. As with any neurological condition it is essential to have plenty of animal fats in the diet.

My 12 year old son has night terrors several times a week. These last for several minutes. What would be causing these? Is there harm being done to him if they continue?

Night terrors are common amongst GAPS children. They are likely to be caused by toxins coming into the brain from the gut. Please follow the protocol starting from the GAPS Introduction Diet. Try to use some herbal supplements at bedtime such as extract of *Amapola Californica*, valerian and hops with an addition of 5HTP, Melatonin, magnesium, zinc and GABA. There are supplements on the market which contain all of those ingredients. These supplements will help to balance neurotransmitter production in your child and normalize sleep.

What do you recommend for someone with arthritis? I was just diagnosed with a hard lump of arthritis on my sternum. I have been doing gaps for about two years. Is there some supplement that I may not be getting enough of? Would Rheumatoid arthritis have different recommendations?

Arthritis is due to the immune system trying to clear toxins from the joints and other parts of the body rich in connective tissue. Connective tissue is an organ in itself made out of large amounts of collagen, elastin and other elastic proteins; it permeates the whole of our bodies and holds them together. Trouble is, many toxins produced in the gut and other places in the body attach themselves to collagen and elastin, changing their three-dimensional structure. This makes the immune system attack them with inflammation and autoimmunity, leading to arthritis. Every person is unique and there may be unique circumstances which need to be addressed in your situation. It is a good idea to work with a health practitioner to decide what may work for you. Please look at the list of Certified GAPS Practitioner. Most of them work by phone and skype as well as in person, so you can work with your local practitioner or one a long distance away. Your practitioner will help you to adjust your diet; it is possible you need to remove some foods for a while, such as fruit, nuts and honey. Try to do a course of enemas to clear your bowel, or a course of colonic irrigation. Try to take some natural enzymes such as those produced by silk worm. Other supplements and interventions may be needed to help you, and your practitioner will help you to choose them.

Can you make specific recommendations for someone suffering with heavy periods for the short term while my body is healing through the GAPS stages (the doctor is suggesting the pill)? Also, I hear fish oils can be blood thinners; does this have any effect on my periods? How about my iron levels?

Menstruations are one of the ways a woman's body cleanses itself. As your body will be removing toxins during your GAPS Protocol it is normal for your menstruations to become heavy. Make sure to eat plenty of liver and other organ meats and red meats (in combination with animal fats!). These foods will maintain your iron level and B-vitamin levels better than anything else. I would avoid the pill or any other medication. Fish oils supply the body with nutrients, and then the body will decide how to use them. It is not necessarily that the body will use them for thinning your blood; it may do just the opposite with these nutrients. Natural substances don't work like drugs, they just support the body in whatever it is doing, and your body always knows what to do in every situation.

My daughter has PANDA's and tics and apparently GcMAF is very effective at fighting viruses and addressing these issues. You can get GcMAF shots, but I would rather take it in the probiotic form. Do you have any experience with GcMAF or recommend it?

I have some patients who have tried GcMAF in injections and homemade yoghurt. The results are inconsistent: some injections seemed to produce improvements and some

didn't do anything. Using the yoghurt which you make at home is much less expensive than the injections and can produce comparable results. Making kefir and yoghurt of different microbial composition from raw organic milk of any animal has produced and continues to produce miracles, many of which have been documented well. It seems that using GcMAF is one more way of producing these miracles.

Just wondering if the GAPS diet would improve Hyperhidrosis & if so how long would it take? If this isn't the right diet for hyperhidrosis do you have any tips for what directions I should be looking in? I'm 2mths into the diet with no reduction of symptoms so far.

Sweating is a cleansing function of the body. If you sweat excessively it means that there are too many toxins your body has to keep removing through sweat. Trying to suppress this function will make your body accumulate those toxins, which is likely to manifest as a disease much more troublesome than excessive sweating.

The question is: why do you have those toxins and where do they come from? They are likely to come from your gut, so addressing your gut flora and healing the gut through the GAPS Protocol may remove the problem. In the initial stages you will be going through die-off and detox periods, so your toxic burden will increase and as a result your sweating may increase. But as your gut flora starts changing the level of toxicity will drop and with it the sweating will drop as well. Two months into the programme is still early stages. Study the chapter on detoxification in my book and follow advice there. Any help you can give your body in removing toxins will speed your recovery. Think of any other area of your body that may be generating toxins, such as chronic infections (sinusitis for example) and dental work (amalgam fillings, root canals, cavitation, etc.).

Can being prone to serotonin syndrome (from diet, herbs, coffee etc.) be improved by Gaps? I know carbs can boost a spike, but cystic fibrosis, dumping bowel disease, gene - defect, etc. can cause higher levels.

Serotonin syndrome happens as a side-effect of using psychotropic medication, mainly antidepressants. Its symptoms are typical to the clinical picture of acute toxicity/shock and have very little to do with natural serotonin production or function.

Serotonin is normally produced in the gut, and the gut flora plays a crucial role in this process. If the gut flora is abnormal there may be too much serotonin produced, though it is rare in the clinical setting. Majority of GAPS people have low levels of serotonin. Doing the GAPS Nutritional Protocol will change your gut flora and change your production of serotonin. If it is low it will come up to normal, if it is high it will get

reduced down to normal. Only Nature and your own body can do this fine tuning; no drug can do that.

I have been struggling with Lichen Planopilaris (Lichen Planus of the scalp) for 7 years now. I have been on the GAPS diet for the last 6 months (first intro then full) and while my digestion has improved tremendously, I have gotten almost no relief from my LP symptoms. What do you suggest I use as topical treatment to relieve the itching and scabbing of my scalp while waiting for GAPS diet to do its magic?

Lichen Planopilaris is considered to be an autoimmune condition of the skin. The GAPS Nutritional Protocol will deal with the root cause of autoimmunity in the gut, which may take time. The skin in people with autoimmune problems accumulates toxins; it is these toxins the immune system is responding and causing all the unpleasant symptoms. It is a good idea to give your body some help in removing those toxins. I suggest looking into some detoxifying supplements, baths and other measures (there are a lot very good ones). It is a good idea to work with a GAPS Practitioner to devise a plan for removing toxins. It is essential not to use any commercial skin-care products or personal care products (shampoo, cream, conditioner, etc.). It is quite likely that years of using those products have caused your condition in the first place. The rule is: If you can't eat it you can't put it onto your skin and scalp!

ADDICTIONS

You talk about the path that GAPS children often follow leading to drug use. Do you have any advice for a GAPS-child-now-adult trying to heal from extensive drug use?

The basis for addictive behaviour is blood sugar abnormalities. It is the swinging blood sugar levels that create lack of neurotransmitters in the brain (dopamine in particular) and desire to boost them with an addictive substance or behaviour. It is imperative for these people to keep their blood sugar at a normal level all the time. The way to do it is by consuming fat at frequent regular intervals! The best fats are raw butter, coconut oil or any animal fat. They need to be consumed every 20-30 minutes throughout the day. In the initial stages, when sugar cravings are strong, here is what I recommend: mix raw butter with some raw honey to taste (not much, just enough to please your taste buds), put this mixture into a glass jar and carry it with you everywhere. Eat 2-3 tablespoons every 20-30 minutes, even more often if the sugar cravings are bad. Raw honey in the butter will help to restore low blood sugar instantly, improve the taste of butter and add enzymes which help to digest the fat. In parallel carry another jar with you with coconut oil and eat that as well at regular intervals. With meals and snacks eat plenty of animal fats. Follow the GAPS diet strictly; it will restore your normal production of neurotransmitters naturally, and remove addictive behaviour for good.

If a person starting the diet has serious issues with compulsive binge eating (without purging) that are not getting better on Intro, would you recommend the same set of supplements for them as you would for anorexic patients (e.g. tryptophan, glutamine, asparagine and supporting nutrients)?

You can try the supplements. But for people with compulsive binge eating I recommend starting from the Full GAPS Diet, as there is a wider choice of foods to eat. It is very important for you to keep your blood sugar at the right level. To do that mix a block of raw butter or virgin coconut oil with some honey to your taste, put this mixture into a glass jar and take this jar with you everywhere. Eat 1-2 tablespoons of this mixture every 20 minutes or so all day. Make your meals high in fat and meat/eggs and very satisfying. Eat as often as you want. Your bingeing is due to nutritional deficiencies, generally connected to protein and fat deficiency. When these deficiencies are eliminated you will stop bingeing.

ADRENALS

What recommendations are there for GAPS patients for boosting their adrenals?

Adrenals love fat and cholesterol. So, as far as the diet is concerned, eat lots of animal fats with every meal and cholesterol-rich foods, such as egg yolks, sour cream, butter and fatty fish. Another essential for the adrenals is sleep! Sleep is really not optional, so organise your life in such a way that you can have a nap every afternoon and a good long sleep at night. Another essential is to lower your stress, which is easier done than you may think. Stress is not the event itself; it is your attitude to this event. Research shows, that people react to stress very differently depending on their attitude to life. The one, who generally has a negative personality and tends to worry a lot, has all the stress hormones and destructive chemicals racing around their bodies. But the person, who has a philosophical and positive attitude to life, will have much less stress chemicals in their blood and will cope much better. It is the first type of people that “burn” their adrenals out. There are excellent books on this subject: you can start from Dale Carnegie’s book “How to stop worrying and start living”, for example.

ALOE VERA

In your book you do not allow aloe vera and seaweed. I thought these were beneficial to health.

The list of foods to avoid is compiled for people with very severe digestive problems: profuse diarrhea, ulcerations, etc. When these symptoms are gone and your digestive system is functioning fairly well, you can introduce aloe vera and seaweed.

ANTI-NUTRIENTS

What about phytates and other anti-nutrients in food?

All foods contain substances, which can be damaging to the human gut and the rest of the body. Plants contain phytates, lectins, oxalates, salicylates, phenols and who knows, what else. Animal foods are largely made of proteins, every one of which can cause allergies. So, should we stop eating at all? It is a matter of what you can digest and assimilate at any particular point in your life. Even people, who consider themselves healthy, have periods in their lives when they are run down or under stress. These are times to be kind to your digestive system and not eat things, which are hard to digest. Following the GAPS Introduction Diet allows people to heal their gut by eating easily digestible foods, so later they can safely introduce foods, which are harder to digest.

In the GAPS book you recommend juicing greens such as kale, spinach and cabbage among other vegetables. However, it is my understanding that some vegetables contain anti-nutrients, and should thus be primarily consumed cooked (for example cooking spinach reduces oxalate content). How is juicing such vegetables beneficial?

All foods contain anti-nutrients, plant and animal. The beautiful thing is that spinach is not made from oxalates only: it contains hundreds of other substances in a natural balance. Some of these substances are known to prevent cancer and to clean the liver; if you cook spinach these substances will be destroyed. We don't make juice just from spinach either, we add other fruit and vegetables, and we can also add raw eggs and sour cream to the juice to balance it further. It is all a matter of balance and personal sensitivity. If a person has particular sensitivity to oxalates (burning urination for example), then oxalate-containing foods need to be avoided until the gut heals enough to be able to handle them. But if there is no such sensitivity then there is no need to be afraid of spinach or cabbage or broccoli or any other food just because some anti-nutrient has been found there.

How do I tell whether a reaction to food means “back off of this food” or a die-off that means “go slowly but go ahead”? For example, when I introduced yogurt both my son and I got eczema. I thought it meant that we needed to stop dairy, but you told me to “push through” – and sure enough, after a while eczema did resolve?

There are two reasons for reacting: damaged “leaky” gut wall and “die-off”. Damaged gut wall allows through partially digested foods which cause reactions. If the reaction is very severe and you know which particular food you have reacted to, avoid that food for a few weeks, then try to eat a tiny amount. If you still react, again wait for a few weeks and try again. As your gut wall starts healing, the food in question will get the chance to be digested properly before absorbing and the reaction will disappear. In order to heal and seal the gut lining follow the GAPS Introduction Diet. This also applies to phenols and salicylates in foods (please read more about that in the GAPS book). In the case of probiotic foods, such as yogurt and kefir (they are the first dairy we introduce on the

Introduction Diet) most reactions are “die-off”. It means that the beneficial microbes in the probiotic food are killing the pathogens in your gut; when those pathogens die, they release toxins which cause unpleasant symptoms – a “die-off reaction”. It is important to control this reaction by introducing probiotic foods gradually starting from small amounts. The introduction process is always individual: some people sail through it, others take a very long time to introduce a few teaspoonfuls of yogurt or kefir.

AUTOIMMUNE

Do you have any experience with (dilated) cardiomyopathy? I hear it could be an autoimmune disease and /or be caused by a toxin? What could help with this condition?

Many toxins produced by abnormal gut flora have an ability to paralyze muscles. The heart is a big muscle and can be affected by this toxicity. Autoimmunity is born in the gut; it is a usual component of GAPS. In a proportion of people with cardiomyopathy antibodies were found against the heart muscle, so the condition is considered to be autoimmune. I have no experience in treating this condition, but I would try to follow the GAPS Introduction Diet moving through the stages very slowly (spending a few months on the 2nd stage). This measure will re-balance the immune system, change the gut flora and heal the gut lining. All of this can change everything in the body and initiate healing everywhere it is needed, including the heart.

I have heard rumours that a book for autoimmune conditions will be coming out. Will the recommendations differ greatly from those in the GAPS book? What should I do now while I am waiting for the new book?

Yes, I am working on the new book, called *GUT AND PHYSIOLOGY SYNDROME*, which will cover autoimmunity amongst other conditions. You do not have to wait for that book, as the treatment for those conditions will essentially be the same: the existing GAPS Nutritional Protocol.

Can Sjogren’s syndrome dryness reduce the normal protective mucosal lining of the gut, thereby delaying or confounding its healing and recovery by the GAPS Program? If yes, is there anything a Sjogren’s patient can do to overcome this barrier to recovery?

Sjogren’s syndrome is an autoimmune condition. I am convinced that autoimmunity is born in the gut and the gut wall in these people is very damaged. I recommend following the GAPS Introduction Diet slowly and patiently to heal the gut wall and re-balance the immune system. It is possible that mucous production in the gut is reduced in Sjogren’s patients, but the meat stocks and broths on the Introduction Diet will compensate for that. Only gelatinous meats and organ meats should be used in the initial stages (less muscle meats).

Can the following symptoms be caused by the GAPS:

1. Chronically low or absent nasal mucous production, even during a cold?

2. Chronically low or absent perspiration, even in the sauna?

3. Chronically low or absent urge to defecate, even when the rectum is full?

If the answer is yes to any of those questions, are there any specific measures that could be taken to address these problems beyond the standard GAPS Programme? Can GAPS correct those problems or some further measures are recommended?

You have described symptoms of Sjogren's syndrome, which is an autoimmune disease affecting liquid-secreting glands in the body. Another name for this condition is 'Sicca syndrome' or general dryness. People with this problem do not produce enough tears, saliva, sweat and mucous on all their mucous membranes, including nose, sinuses, throat, other breathing passages, genital organs and the digestive system. Lack of lubricating liquids in the bowel can cause constipation and lack of urge to defecate. Lack of lubricating liquids in the joints can cause joint problems.

I have no doubt that autoimmunity is born in the gut. About 85% of our immune system is located in the gut wall; gut flora plays a crucial role in keeping our immunity in the right balance. GAPS people almost always have an autoimmune component due to the abnormal gut flora. In order to treat autoimmunity properly (rather than just suppress symptoms with steroids and other drugs) we need to focus on the gut. I recommend following the GAPS Nutritional Protocol strictly for several years. As the gut becomes healthy your immune system will heal and re-balance itself, and autoimmunity will disappear.

Would the GAPS diet do anything to help heal someone with Parkinson's disease?

I have no experience in treating Parkinson's disease with GAPS Nutritional Protocol. However, there are many indications to show that Parkinson's disease is autoimmune in its origin. GAPS Nutritional Protocol heals the gut and re-balances immunity; so it should lay the foundation for recovery. I would try it.

As those of us with autoimmune issues eagerly await your new book, could you talk about the role of endorphins in autoimmune issues and the use of Low Dose Naltrexone in the GAPS patient? I am particularly interested in the effects for IBD (Inflammatory Bowel Disease).

Naltrexone is a drug developed in the 1960s to counteract effects of opioid drugs and alcohol on the nervous system. Naltrexone binds to the same receptors as the opioids and alcohol, thus blocking their action. A study conducted by Dr Jill Smith in 2010 on patients with Crohn's disease has found low dose Naltrexone quite effective in reducing inflammation and initiating healing. How did that work?

What many people don't realise that our gut has its own nervous system, which has been called 'the second brain'. This system is very large and complex and has the same

receptors for opiates as the brain does. In a GAPS gut proteins do not digest well, instead many of them are broken down to chains of peptides, which in their structure are similar to heroin, morphine and other opiates. These peptides absorb and bind to the brain receptors, giving people many mental symptoms (this phenomenon has been well studied in autism and schizophrenia). The same peptides bind to the same receptors in the 'second brain' in the gut wall, where they have a lot to do with initiating the autoimmune attack on the gut, leading to inflammation and disease. As Naltrexone binds to the receptors and does not allow those peptides to bind to them, the immune system leaves those receptors alone and stops attacking them. As a result inflammation gets down and the gut can start healing itself. Question is, where else do those peptides go then, and what damage do they cause elsewhere? Dr Smith's study used Naltrexone with the Crohn's patients for three months only. We do not know what happens after that and what is the long-term effect of this treatment.

My question is with my Sjogren's syndrome. I have very little saliva. I am hoping that will eventually change. In the meantime do you recommend any saliva supplements or any other digestive aid to help me? I know digestion begins with saliva.

I suggest taking pancreatic digestive enzymes with your meals, which will have amylases and other enzymes, and following the GAPS Diet strictly.

It is very important for you to remove toxins from your mouth. Stop using all toothpaste and clean your teeth only with olive oil and pure bicarbonate of soda. It works well to dip your toothbrush into olive oil first and then into bicarbonate of soda, brush as usual and rinse. Use oil pull as much as you can between meals. Open 1-2 capsules of a good quality probiotic onto your tongue after meals and at bedtime. Work with a holistic dentist to remove toxic dental materials. Do not use lipstick or any make-up on your eyes (even so-called 'natural' ones). Use olive oil or coconut oil as a moisturizer on your face. The general rule is: if you cannot eat it, do not apply it to your skin. When your body removed toxins from those areas, your symptoms may subside naturally.

Could there be a connection between poor digestive health in the mother (probably the result of Hashimoto's disease) and having a baby born with a cleft lip and palate?

Cleft lip and palate are usually the result of deficiencies in fat-soluble vitamins during pregnancy (vitamins A, D, E and K). Protein deficiency and B vitamins are also relevant. Unless the mother had a very poor diet during pregnancy, it is likely that her digestion and absorption of food was not optimal. Hashimoto's disease is an autoimmune condition. I believe that autoimmunity is born in the gut, the usual underlying problem is abnormal gut flora. So the mother is likely to be a GAPS person.

Is Idiopathic Guttate Hypomelanosis something that will be reversed and /or prevented from getting worse with GAPS? Is there something I should be doing in addition?

Idiopathic guttate hypomelanosis is the name given to 2 to 5-mm flat white spots found on the shins and forearms. 'Idiopathic' means the cause is unknown, 'guttate' means resembling tear-drops, and 'hypomelanosis' refers to the lighter colour of the affected areas. It is thought to be a part of the ageing process in light-skinned individuals. The microscopic changes in the skin indicate that this condition may be autoimmune. I believe that all autoimmunity is born in the gut. So, try the GAPS Nutritional Programme, as it will re-balance your immunity. A course of beta-carotene supplements (and/or drinking freshly-pressed carrot juice, watermelon juice and juice from greens) helps to remove many toxins from the skin and improve the ability to sunbath.

Will the GAPS diet help with vitiligo?

Vitiligo is an autoimmune condition. Autoimmunity is born in the gut, so by working on your gut health you will re-balance your immunity. When that happens in many cases autoimmune conditions do disappear.

In order for the immune system to launch an attack on your skin, your skin must accumulate toxins in it first: toxins which change protein structure in your skin cells. So, detoxifying your skin has to be part of the treatment. Take a good course of beta-carotene as a supplement and drink plenty of organic freshly-pressed carrot juice daily (to the point of getting an orange tinge to your skin, which is harmless in itself). Swimming in the sea and sunbathing do wonders for detoxifying the skin. So do sweating procedures such as sauna and exercise. Traditional mud treatments help many people as they also detoxify the skin: mud baths and applications (it is best to do this at an established natural mud spar).

I have fibromyalgia/chronic fatigue and have been having trouble with ferments as well as coconut oil. I heard someone say that people with this illness have more trouble with ferments. Why is that? I was up to 1 and ¼ tsp of fermented cabbage juice and when I increased by another ¼ tsp I experienced really bad die-off. After several days, I started back at ½ tsp of juice and had bad die-off again. I am looking forward to being able to get to a point where I can eat the cabbage itself. Why do I have to go so slowly?

Fibromyalgia, chronic fatigue syndrome and ME (Myalgic Encephalomyelitis) are the most difficult conditions to treat. The detoxification system in these people is in complete collapse. The toxins are not being handled by the disabled detoxification system, so they impair the function of mitochondria in the cells. Mitochondria are our energy factories in the body. As they are disabled the person suffers from severe fatigue, which is the main symptom of these three conditions. The detox system needs energy to function, so the person is trapped in a vicious cycle of not being able to produce energy or detoxify. As the detoxification system is disabled, any amount of die-off is poorly tolerated, as die-off increases toxicity in the body, and there is nobody to handle it. That is why people

with these problems have to go so slowly with increasing probiotics or fermented foods. Coconut oil has anti-microbial substances and also causes some die-off. Try to modify your GAPS diet according to your personal needs: move through the stages faster or add foods which you feel will be good for you earlier, while avoiding those that are difficult for you to handle at the moment. Please, read my article *ONE MAN'S MEAT IS ANOTHER MAN'S POISON* on in the "Resources" section and follow its recommendations. It may be helpful for you to take digestive enzymes with your meals: stomach acid at the beginning of the meal and pancreatic enzymes at the end. Feed yourself very well with meats, fats and well-cooked vegetables for 5 days a week and then give yourself one day of rest from food – fast for 24-36 hours. For example, choose Friday as a day of fasting; so, on Thursday skip the evening meal and go to bed early. On Friday do not eat anything at all, just drink plenty of water. On Saturday have a normal breakfast and continue eating normally. Repeat this procedure every week. When we fast, the body has a chance to stop attending to the digestive system and get round to other jobs, such as restoring your detoxification system. By doing short 24-35 hour fasts every week you will slowly step-by-step start re-building your ability to detoxify and to produce energy. The whole process will be enhanced if you do a full coffee enema on Thursday evening or Friday morning: this procedure will unload your liver, and reduce the flow of toxicity from you gut into the bloodstream. Please, look for the coffee enema procedure in the FAQs (it is important to empty your bowel fully with water enemas before doing the coffee enema).

My heart goes out to people with fibromyalgia, chronic fatigue syndrome and ME; you have a real challenge with your health, one of the most difficult ones! The important thing for you is to never give up and trust your body: your body knows what it needs at any moment. You need to develop a real connection with your body, to learn to listen to it and have a deep love and respect for it. Because it is your body that is doing the healing, not the diet or supplements or anything else! Your recovery process is a partnership between you and your body. So, don't try to impose anything on your body without asking it first if it agrees with that. Your body will let you know through feelings: something that is right for you will feel good. If it doesn't feel good deep inside you than don't do it despite the fact that it may seem like a good idea. Your mind is affected by many different things and can deceive you, while your body is always right. We have lost touch with our nature and it takes time to learn to listen to our bodies and our souls. But as you learn, you will become more and more successful, and not only at your physical recovery, but many other aspects of life.

I want to use GAPS to help heal Hashimoto's thyroiditis. Some sources (i.e. Kharrazian) recommend not eating dairy or eggs for people with this issue. I am wondering what your experience is with this?

Most GAPS people have an autoimmune component to their illness, because autoimmunity is born in the gut. Hashimoto's thyroiditis is an autoimmune disease. By healing the gut and restoring normal gut flora you will re-balance your immune system and remove autoimmunity. The gut wall in Hashimoto's patients is like a sieve – it is

damaged and leaky, so the foods don't get the chance to be digested properly before they absorb. If the diet is not focusing on healing and sealing the gut lining then you finish up in a nightmare situation of avoiding all sorts of foods which do not digest properly before being absorbed through the damaged gut lining. These partially digested foods trigger the immunity and start autoimmune problems. So, instead of avoiding foods focus on healing and sealing your gut, and soon you will be able to eat all sorts of foods without them causing trouble. Please, read more about this in the Food Allergy article at www.GAPSDiet.com. To heal your gut quickly and optimally follow the Introduction Diet. If eggs or dairy are clearly causing symptoms in you, then avoid them for a while and try to introduce them later. If you cannot link eggs or dairy to any particular symptoms now, then don't remove them. To make sure that there is no real allergy to these foods use the *Sensitivity Test*.

I have been on Dr St Amand's guaifenesin protocol for fibromyalgia for the past 7 years with positive results in pain reduction. Are you familiar with this protocol? If so, what are your thoughts about continuing or discontinuing it while on the GAPS diet?

If you feel that it helps continue with guaifenesin. As you progress through the GAPS Nutritional Protocol try to reduce the dose and gradually come off this medication. As any drug guaifenesin has negative effects on the body, and long-term use of it has not been studied yet. I do not recommend taking any drug long-term.

I was wondering if the GAPS book takes into consideration foods that stimulate TNF (tumour necrosis factor) as there seems to be a strong link between TNF and autoimmune diseases like ulcerative colitis and Crohn's. Could you potentially make your condition worse by over-eating foods that stimulate TNF?

GAPS Nutritional Protocol is anti-inflammatory; it re-balances your immune system to bring down not only inflammation but also autoimmunity. The state of the gut is a major factor in our immune function. By normalizing the gut flora and healing the gut GAPS Nutritional Protocol lays the ground for normal healthy immunity. Not only TNF is affected but all parts of the immune system.

I have heard that a lot of people with HIV and autoimmune disease have benefited from taking the supplement cellfood. My question is is Cellfood supplement allowed in the GAPS Diet?

There are many good supplements on the market. I have made it a rule not to recommend any particular brand. Please, look at the ingredients of the supplement and see if it contains any substances not allowed on the GAPS Nutritional Protocol and decide for yourself.

BACTERIA, CANDIDA, & FUNGUS

I have been reading conflicting information regarding bacteria and where they reside. Some sources say the small intestine should be sterile and have not bacteria in it and that both lactobacillus and bifidobacterium live in the large intestine only. Other sources indicate that bifidobacteria live in the large intestine while lactobacillus reside only in the small intestine. What is your thoughts on this?

The whole digestive system is populated, from your mouth to the end; there are no sterile areas in the digestive tract. Bifidobacteria are strict anaerobes; the best conditions for them exist in the large bowel, that is why they are very numerous there. Lactobacilli can use oxygen and also can live in anaerobic conditions, so they are present everywhere, including the small intestine.

Why does it take so long to change the bacterial profile in the gut?

It can be quick to get ill, while healing always takes time. It can take a long time to normalise gut flora in a person with gut dysbiosis because the gut is occupied by thousands of pathogenic species of microbes. They dig themselves in very well in the gut lining, and to drive them out is not easy: the probiotic microbes have quite a fight on their hands. Another problem is that, whether we use fermented foods or commercial probiotic supplements, the numbers of active microbes we introduce are very small. There is no way at the moment (which means we don't know any way) to flood the gut with probiotics safely, because we don't know enough about them. Recent scientific data shows that there are hundreds of thousands of various species of microbes in a healthy gut! With our current knowledge we can only introduce a few at a time – those that we know, such as lactobacilli, bifidobacteria and few others. There are a few doctors in the worlds who are trying to copy Nature: they use a procedure called **faecal transplant**: a stool from a healthy donor is mixed with water and introduced into the gut of the patient (through the tube into the stomach, or into the bowel as an enema). In many patients this fixes the problem, though it does not work for everybody. Faecal transplant introduces the whole immensely complex flora of a healthy gut, without us knowing what species of microbes are there and what other factors we are introducing. I am sure that many of you watched films about animals, where a baby elephant would consume mother's stool with relish. For us, humans, this looks repulsive and unacceptable, but obviously these animals know something we don't. Faecal transplant does what these baby elephants do, and maybe this will be the way in the future to restore the gut flora quickly.

Testing revealed that I have low E.coli in the gut. How can this be increased?

There are some probiotic supplements on the market which contain E.coli; one of the oldest is a German product Mutaflor. However, following the GAPS Programme will naturally re-balance your gut flora and E.coli will grow itself.

How does GAPS diet deal with small intestinal bacterial overgrowth (SIBO)? Because fermented foods and probiotic can actually feed SIBO, what is your recommendation on how to address this situation?

Majority of GAPS people have this problem. Just follow the GAPS programme, it will feed the gut and re-balance immunity and the nervous system in the gut wall. The body knows how to heal itself, just give it the tools.

What do you suggest for people who have high amounts of klebsiella and clostridium bacteria in their body? Cut out all foods containing FOS?

These microbes are best fought with probiotics. Usually the diet and good quality therapeutic probiotics take them under control. If after six months on the GAPS programme they still cause trouble, then a course of appropriate antibiotic can be administered. Make sure to continue with the GAPS diet and high doses of probiotics through the antibiotic treatment and afterwards.

Is there anything you can do to reduce Candida in the mouth (thrush)?

It is important to populate the mouth and throat with beneficial bacteria. To do this, take a mouthful of yogurt, kefir or 2 opened Bio-Kult capsules on the tongue after everything you eat. Do the same thing at bedtime after you have cleaned your teeth and do not plan on eating or drinking anything else.

Can a patient with candida use fruit-based vitamin C products such as acerola and amla? Or will it exacerbate the Candida?

Candida will feed on any sugar, including your own gut lining (the cells there are covered by a sugar layer, called glycocalyx). So, it is a balancing act: if natural products such as dried acerola and amla are helping you in other ways, don't worry about candida and continue using them. If they are not making much difference, then don't use them.

What specific recommendations are there for GAPS patients struggling with Candida?

It is impossible to completely eliminate Candida. We can only control it by strengthening the immune system and using some anti-candida remedies. The GAPS diet builds up the immunity over time very well. There are many good natural remedies on the market, such as oregano, olive leaf extract, grapefruit seed extract, garlic and herbal mixes to bring candida down a bit. It is important to introduce natural remedies gradually, controlling the die-off reaction; start with one remedy, then add others one by one. Some people find relief with mainstream anti-fungal medications. Trouble is that drugs cannot be taken for long periods of time (apart from Nystatin), as they are toxic and have side effects. If the drugs work, they may provide an immediate relief, but when they are stopped, the problem may come back fairly soon. Natural remedies can be taken for long periods of time without harm, that is why it is a good idea to start with natural

remedies, continue taking them through the drug treatment and to follow with the natural remedies when the drug has been stopped. Another measure is alkalizing: candida thrives in acid environment and hates alkaline environment. The most effective and inexpensive remedy is pure bicarbonate of soda, It is quite effective when used as a topical application on athletes' foot (put some powder into your socks and shoes), mouth candida (brush your teeth with bicarbonate of soda instead of toothpaste), any other fungal skin problems and as baths (add about a cup of bicarbonate of soda to the bath water). Taking bicarbonate of soda internally can be effective in reflux, indigestion and other internal candida problems. For internal use dissolve 1/2 a teaspoon of aluminum-free bicarbonate of soda in a glass of water and drink on an EMPTY stomach. It is not recommended to have more than 2-3 glasses of this solution per day, as it may affect the kidney function. Start with 1/2 a glass first thing in the morning and gradually build up to 2-3 glasses per day. A more expensive alternative is buying a good water ionizers (there are a few on the market), which produces alkaline drinking water. There are health centers and pharmacies around the world, which purchase these ionizers and sell the alkaline water in bottles. Introduce alkaline water gradually.

How should *S boulardii* be dosed when used for candida?

Always start from a small dose and gradually increase it to a therapeutic level, stay on this level for 3-4 months, then gradually reduce to none. For an adult the therapeutic dose is usually 4-5 billion live cells per day. For a child use smaller doses depending on the age of the child: 3-5 years of age the dose is 1 billion live cells per day, for 6-11 years of age 2 billion per day, for older children 3-4 billion per day. I would not use *S boulardii* with children younger than 3, it is better to use homemade kefir for these children. It is important to always combine *S boulardii* with other probiotics, as it should not be allowed to dominate in the gut. Based on my experience, I would not use *S boulardii* permanently, only as a course. On a long term basis it is better to use kefir, which contains a group of beneficial yeasts as well as bacteria.

I would like to know how GAPS eradicates systemic yeast versus yeast overgrowth in the colon.

It is impossible to eradicate yeast from the body, systemic or in the colon, as yeasts are a natural part of our bodily flora. They fulfil many useful roles in the body, one of which is dealing with toxins: the body “employs” yeast as a sponge to absorb heavy metals and other toxins, so these poisons do less damage. That is why yeast overgrowth always comes with toxicity. You may attack yeast with anti-fungal medication, which may work temporarily, but as long as there are toxins in the body to deal with, yeast will come back. GAPS programme works on many levels: it removes the main source of toxicity in the body by improving gut flora and gut function; it re-balances and nourishes immune system, so it deals with pathogens in its own unique ways; and it restores normal microbial balance in the body. And the normal microbial balance includes yeasts - many varieties of them living side-by-side with bacteria, viruses, protozoa and other microbes. You have to understand that about 90% of your body are microbes; you are only 10% - a

shell and a habitat for these microbes. Work with them rather than against them, restore normal balance amongst them, and they will serve you well.

If one is hypoglycaemic with candida issues, where can carbs be obtained from? The legal carbs all seem to have too high a GI such as squash, cooked carrots, etc, fruits will also be tricky and of course grains and beans are difficult to digest despite some being low GI. Throw in the possibility of nightshade/sulphur sensitivity as well and it is seemingly impossible to get any carbs in at all.

Carbohydrates are one macro-nutrient, which is not essential, strictly speaking. Protein and fats are essential for us to consume, but not carbs. People with candida do best on high-fat and high-protein diet, rather than on carbs. Meats contain some carbohydrate in the form of glycogen, so a piece of meat (with fat on it of course) will provide you not only with protein and fat, but with some carbs.

Do you have any experience with fungal infections in the lung? I was diagnosed with aspergillus in my lungs and have been recommended to take Itraconazole. I have felt much better while on this medication but it has been recommended to continue the drug long-term. Can someone heal on GAPS while taking medications long-term?

Yes, GAPS Nutritional Protocol can help you. Lungs are one of the major detoxification organs in the human body, they eliminate many toxins. In a person with damaged gut lining many toxins and partially digested foods arrive to the lungs to be eliminated, providing a perfect food for fungi to grow. That is why aspergillus is there in the first place. Yes, you can heal while on medication. You may find that in a few months you will be able to stop taking the drug, and continue with the GAPS programme for another year or longer.

A German publication stated ‘do not attempt to treat a gut yeast overgrowth by diet and supplements alone, i.e. without effective anti-fungal medication’. German doctors emphasis that it is not possible to starve out the yeasts. They have observed that although patients may feel better initially whenever they first begin a very strict low carbohydrate diet, these same patients have a much harder time later on, when they relapse, than they ever did at first. Their explanation is that candida albicans has the ability to convert its metabolism from carbohydrate to protein whenever its favourite food source becomes limited. At this stage candida becomes parasitic and lives off the host – that is, it forms an invasive infection within the mucous membrane.

Candida is not alone in the gut, it lives alongside thousands of other species of microbes, which affect each other, control each other and communicate with each other. GAPS Programme does not just deal with candida, it restores the microbial balance in the gut; and it is that balance that brings candida under control. In some patients a course of anti-fungal medication can be helpful combined with the GAPS Diet. But in the majority of patients there is no need for medication.

I have read: 'dietary carbs can feed candida in the gut, but they also feed competing probiotic bacteria and promote intestinal barrier integrity and immune function, and thus their effect on the gut flora is complex. More importantly, ketosis promotes systemic invasion by candida and glucose is needed for the immune defence to candida, so a moderate carb intake is helpful, as candida is an effective intra-cellular pathogen that can flourish systemically.' This author recommendation is to eat 'safe starches', which he says are white rice and sweet potatoes. Please, comment.

Starch is a very specific molecule and it does not exist in Nature in pure form. Grains are not 'starches', as they contain hundreds of other substances. Rice, other grains and potatoes contain many anti-nutrients which damage the gut wall. They also cross-react with a gliadin antibody for celiac disease, initiating an autoimmune attack on the gut wall, joints and other connective tissue in the body. You will get plenty of carbohydrates from vegetables and fruit allowed on the GAPS Diet.

Candida is not the only pathogen in the gut; it is always in company with thousands of other pathogenic microbes. GAPS Protocol deals with all of them at once, not just candida.

GAPS diet generally is not a ketogenic diet. Every person needs to find the right individual balance between meats and vegetables. If you are predominantly malnourished you need to have more building foods, which are animal foods. If you are predominantly toxic, then you need to eat more vegetables for a while. However, there is no need to fear ketosis. I have quite a few patients who opted for having no plant matter at all and are doing very well on purely animal food diet. Ketosis is a natural state for these people. Generally, we all go through periods of ketosis every day; natural ketosis is quite normal and is not dangerous. Diabetic ketosis is a very different condition and is dangerous, but here we are not talking about it.

There are many 'scientific' – sounding speculations on candida, ketosis and diets around. Try to focus on what feels right for you: your body has much more wisdom than any science.

What would be your advice for someone who has lactobacteria overgrowth, which significantly outnumbers bifidobacteria in the large intestine? Two of my kids have this condition after being on the diet for over 15 months. There are no fungi, yeast or pathogenic bacteria.

First I would look at your children: are they generally healthy and well, are there any digestive problems or immune abnormalities? Testing is only a tool which can be very unreliable and must never be looked at without the context of the clinical picture.

The stool test gives you a snapshot of what your child has eaten recently, which may have been very rich in lactobacteria (particularly if that sample happens to have fermented foods in it). You have to understand that the stool test does not show your resident bowel flora, it only shows what is in the stool, which comes from food and is transient. In order to study resident flora bowel biopsy has to be taken, which is not a

routine test and is not widely available. So, I would not take seriously the numbers of lactobacteria in the stool test, but rejoice at the fact that there are no pathogens, yeast or fungi.

If your children have serious digestive symptoms (such as diarrhea, pain or constipation), which you think may be related to what the test says, try to supplement bifidobacteria without lactobacilli.

BIOFILMS

How do we know if the pathogens in our gut have created biofilms? If there are biofilms, do we need to do or take anything to remove those biofilms in addition to the GAPS protocol and diet or will it get rid of those biofilms?

Most (if not all) microbes form biofilms. Biofilm is simply a community of microbes which grow together on a surface and are imbedded in various substances they produce (proteins, carbohydrates, etc). Biofilms are not necessarily something bad that should be “got rid off”, as beneficial flora in the gut forms them too. We don’t know enough about this subject yet to start taking action, particularly destructive action. Just work on improving your gut flora; as the beneficial microbes win, they will deal with the pathogens in their own way, including removing their biofilms.

BLOOD PRESSURE & HEART RATE

Can you share about the role of the sympathetic and parasympathetic nervous system in the heart rate and blood pressure issues, which seems to be a common symptom in adult GAPS patients? What is causing this and how can it be addressed through the GAPS Protocol? Any specific recommendations for how to control low blood pressure and high heart rate by getting to the underlying causes?

Our autonomic nervous system is very complex; its two divisions of sympathetic and parasympathetic systems provide a very fine and sensitive regulation to all our organs and systems. Generally sympathetic nervous system increases blood pressure and heart rate, while the parasympathetic does the opposite (though things are not that simple, and there are situations where they swap roles). If the blood pressure is high, then the person needs magnesium. So increase your intake of fruit, vegetables and greens, and freshly pressed juices from them. Eating seaweed may also help, if your gut is ready for seaweed. Baths with Epsom salt will help. During hot season we lose a lot of magnesium through sweat, so you need to replenish it even more. *GAPS Milkshake* will allow you to absorb and use magnesium better. To make GAPS milkshake whisk 2 raw eggs and some sour cream (or coconut oil) into your juice. Supplements of magnesium can also help; choose amino acid chelates of magnesium.

In GAPS patients low blood pressure is usually due to an overgrowth of histamine-producing microbes in the gut. When the person goes through die-off more histamine will be released, so the blood pressure will go down even more. When the blood pressure

drops too low, the heart rate may increase causing palpitations and irregular heart beat. In women in the second half of the menstrual cycle pathogens feel stronger and produce more histamine, which drops the blood pressure and can give palpitations, feeling faint, nausea, headaches and mood swings. This happens because the second half of the menstrual cycle is ruled by progesterone, which is an immune suppressing hormone; as the immune system gets suppressed, the pathogens thrive. So, it is important to keep pathogens under control in order to keep your blood pressure from dropping too low. That is why in the second half of the cycle reduce fruit and honey and have more meats, fish, eggs and fat. To keep your blood pressure higher use coffee enemas and drink good quality organic coffee (made fresh from ground coffee).

Another important factor in blood pressure and heart rate regulation are our hormones. The hormonal balance in the body gets changed during the GAPS programme, and our hormones are the rulers of our metabolism. So, while they are being re-balanced many temporary symptoms may appear, such as changes in the heart rate and blood pressure.

CANCER

I have a very dear friend with pancreatic cancer. I was wondering if the GAPS diet might be helpful to her in restoring her health. Do you have any thoughts about using GAPS to treat cancer?

There is a lot of research pointing to the fact that cancers are caused by parasites. Some are caused by viruses or bacteria, some by fungi, some by flukes, worms and other creatures. The body seems to 'invite' parasites to deal with toxins, when the accumulation of these toxins is too hard for the body to remove on its own. Just like a pond or a ditch, contaminated with industrial toxins, invites all sorts of creatures to eat the toxic sludge and clean it up, so does the human body: it asks for help, when it gets too polluted. Many people fill their bodies with toxic sludge from their personal care products, domestic chemicals, drugs and other man-made chemicals. Different microbes and parasites like eating different toxins, so they find their 'tasty' spot and highjack the DNA of local cells to change these cells in order to build a 'home' for themselves – a tumour. In order to protect their 'home' from the immune system, the parasites cover the tumour with a protein capsule, which is made out of unchanged normal proteins. As a result the immunity cannot 'see' the tumour and does not attack it.

This idea is supported by the fact that a lot of metastasising follows surgery. Oncologists know this very well, that is why, no matter how 'clean' the surgery seemed to be, they want to follow with radiation or chemotherapy, because they know that most of these patients will be back full of metastasis. Why? Because, the parasite inside the tumour lays eggs or spores, lots of babies. When the tumour is cut and the blood vessels are cut around it, these 'babies' escape into the blood stream and get distributed around the body. Wherever they settle they build another tumour.

The time-proven anti-cancer nutritional treatment is the Gerson Protocol, which was developed in the 1930s by a German doctor Max Gerson. Gerson protocol is a strict

vegan diet with juicing and coffee enemas. Vegan diets are a form of fasting: they starve the body of any 'feeding' nourishing substances, while providing large amounts of cleansing, detoxifying substances. Parasites need feeding and they like a toxic body. As you starve them while clearing out the toxins (their food), they become very uncomfortable and they leave. That is why Gerson Protocol has an excellent record of curing people with all sorts of cancers, in the most 'hopeless' stages.

Max Gerson has found his programme by trial and error. He wrote, that when he tried to add anything nourishing into the diet, such as raw egg yolk or cod liver oil, the cancer re-grew. GAPS Nutritional Protocol is a 'feeding' nourishing protocol. Yes, it provides detoxification too, but in a balance with nourishment. That is why I don't use it in treating cancer.

The dairy protein casein is considered by some researchers to promote cancerous growth, once cancer cells are present in the body. What do you think about this theory?

There are hundreds of studies showing that milk can cause any illness under the sun including cancer. All these studies have been conducted on 'supermarket' commercial milk. This milk comes from unnatural breeds of cow and is pasteurized and then often processed in other ways. This is 'Frankenstein' milk and has nothing to do with REAL MILK - raw organic milk from natural breeds of cow fed on organic pasture. The REAL MILK has been consumed by the human kind for millennia, possibly longer, with excellent health benefits. Please read more about raw organic milk in other questions on dairy.

CHILDREN

What will help a child detox after swimming in a chlorinated pool when the school won't let them have a shower. Will taurine help?

I would speak to the school and insist that the child is allowed to have a shower after swimming in the pool. At home in the evening give your child a bath with Epsom salt, which will remove some toxins. Baths with clay (try terramin.com) or seaweed powder will also do wonders. Use cold-pressed olive oil or any other cold-pressed oil to brush your child's teeth; the longer you brush the more toxins are removed through the gums. Amino acid taurine is not the only supplement that is used for improving detoxification in the body, there are many other; seaweed, blue-green algae, spirulina, frozen pollen and sun-dried clay are also very efficient. I prefer to use food as detoxification, juicing and GAPS milkshakes. Fresh eggs, fresh meat with fat on it, fresh fish and raw dairy provide not only taurine, but many other detoxifying nutrients.

Have you come across GAPS and NLD (Non-Verbal Learning Disorder)? We have read the book about the GAPS diet, but didn't run across NLD. Our child was recently diagnosed with this.

There are many diagnostic labels GAPS people receive, and the list of these labels is growing all the time. NLD is one of them. The label is purely descriptive, it does not help you with understanding what causes the problem and how to deal with it. I would not focus on the label, instead do the GAPS Protocol and you will get results.

I listened to your interview with Dr Mercola and I was fascinated. I have a one-month-old baby that I would like to test for gut dysbiosis before I go forward with vaccinations. You mentioned that the Great Plains Laboratory had an organic urine analysis test that can be used for this purpose. You also mentioned a stool test. Can you give the exact name of either or both of the tests to order from the lab? I could only find tests that are designed for adults. When I spoke with customer service for the Great Plains Lab they did not seem to know what I was talking about?

The two tests I would recommend are Comprehensive Digestive Stool Analysis from the Great Smokies Lab and Organic Acids Test from the Great Plains Laboratory. The stool analysis will show the gut flora composition, while the organic acids test (it is a urine test) will show what toxins the child's gut flora is producing. Both tests are non-invasive and can be ordered directly from the laboratories. It would be best for you to work with a practitioner who can interpret those tests for you; please view the Certified GAPS Practitioner section to find a qualified practitioner.

How do you increase HCl in children? Small amounts are not working and many sources say to increase until a burning sensation is noticed. How do you do this for a child?

If the child cannot swallow capsules yet, then concentrate on cabbage juice and sauerkraut juice instead of the supplement: give the child ¼ a cup of these juices at the beginning of the meal. Following the Introduction Diet will help to deal with low stomach acid quicker. When the child can swallow capsules, if there is still a need to supplement, you can give him/her 1-2 capsules at the beginning of each meal.

I put my second baby on the baby GAPS diet from 6 months (with breastfeeding). I was expecting her speech to develop better than my first child who was not on GAPS. However at age 2, my second child still shows the same speech delays as my first. Someone told me that perhaps the GAPS diet is not providing a child's brain with enough glucose for adequate development. Are sugars necessary? Can you comment please?

There can be many reasons for speech delay in children. The fact that both your children have speech delay shows that there is a common cause. It may be some toxins at play, genetic susceptibility or something else. Try to see if there is some toxin in your environment that may be at play, such as old lead pipes in the house, contamination in your drinking water (fluoride, organophosphates, etc) or some other chronic chemical exposure in the environment.

GAPS food provides everything the brain needs to work well and develop well. That is why thousands of children brought up on GAPS Diet develop beautifully. It is a common misconception that the brain needs lots of sugars. Whatever glucose the brain needs GAPS food provides directly or it is manufactured in the body from fats and proteins. I have children in my clinic who eat no plant foods at all (no sugars), yet develop very well.

In the meantime try to provide your children with more language stimulation. Make it your children's bed-time routine to listen to an audiotape: a story appropriate for your child's age read by a good actor with good clear pronunciation. When the lights are switched off all sensory organs are resting apart from the hearing, so the language goes into the brain without distractions. If your children fall asleep with a story every night throughout their childhood, they will develop a large vocabulary and good command of the language. And they will enjoy it too.

This is our second attempt at GAPS with our 7-year-old daughter. Each time after several months of the diet and recommended supplements, she has developed a pregnant posture and a very swayed back. A friend's boy, also on GAPS, has this odd posture. Can you please advise us about what might be causing this and how we can fix it? Last time we went off the diet, her stomach flattened, but I don't want to do this again because she is still suffering from ADHD and autism.

Children with both conditions usually have overgrowth of yeast. If you introduce nuts and fruit too quickly there will be bloating; a bloated bowel will change the child's posture. Try to stick to the 2nd stage of the Introduction Diet for 6-8 months (and possibly longer) before moving on through other stages.

After 8 months on the GAPS programme my 5-year-old son diagnose with autism has steadily increased his stims, especially covering his ears, teeth grinding and muscle tensing. Is something in the diet causing these and what can we do to help?

This is die-off, usually created by yeast. Try to go back to the Introduction Diet for a few months. Something in the diet is feeding yeast, the likely culprits may be nuts and fruit. Have a look into a course of Nystatin for about 6 months, while on the Introduction Diet (preferably sticking to the 2nd stage for 6 months at least).

My child got strep throat with high temperature, and my doctor has prescribed antibiotics. What should we do? Will the antibiotics destroy all our efforts with GAPS?

There are situations when antibiotics are necessary, and Strep throat is usually one of those situations. It is important to take streptococci under control, as they can trigger an autoimmune reaction in the body leading to damage of heart valves. Just make sure to give your child plenty of probiotics and immune-boosting foods during the illness and after it.

Probiotics: open a capsule of a probiotic and pour the powder on your child's tongue after every meal and at bedtime. This will help to populate your child's throat with beneficial bacteria, so they will take streptococci under control now and prevent any new infections in the future.

Food: during the infection feed you child lots of hot chicken stock and chicken soup with kefir, yoghurt or sour cream added. Do not give your child anything cold until the throat is much better. So, no raw fruit or vegetables, no salads, no baking and no cold drinks; only hot soup, hot camomile tea with raw honey, well-cooked fatty gelatinous meat (cooked in water) and eggs with onion. Here is an immune boosting recipe to use during any infection, particularly in the throat: fry 2-3 eggs in generous amounts of goose or duck fat (or any other animal fat) so the whites are gently cooked and the yolks are left runny; slice large white onion and cook in generous amounts of animal fat under a lid for about 20 minutes, until the onion is soft and sweet; serve the eggs and the onion together with all the fat, which they were cooked in, and pour some cold-pressed olive oil on top. This dish is very gentle and soothing on the throat, the fat and the egg yolks will dissolve any damaged tissues and help to remove them; the eggs, fat and cooked onion feed the immune system locally in the throat, and boost systemic immunity as well. Give this dish to your child twice a day, and the sore throat will melt away quite quickly. This is food that should be given to patients in hospitals, whose tonsils have just been removed.

What do you recommend for children who grind teeth? Is this a sign of anything?

Teeth grinding or bruxism is caused by contractions in jaw muscles during sleep. Just as with many other muscle-tone abnormalities, which we see in GAPS patients, I believe it is caused by a combination of toxins, coming out of the gut, and nutritional deficiencies. Bruxism is a common symptom of digestive disorders and GAPS conditions, such as anxiety, bi-polar disorder, autism, ADHD, etc. Severe teeth grinding can damage the teeth and lead to headaches and pain in the facial muscles in the morning. GAPS programme will remove this symptom over time. In the meantime try to use a mouth guard to protect your child's teeth during sleep (the one rugby players use works well). To relax the muscles before sleep it may be helpful to take two supplements at bedtime: magnesium (amino acid chelate) and a supplement, which increases serotonin production (the usual ingredients are 5HTP, niacin, B6, folic acid, biotin and zinc). With both supplements start from a small dose (about half the recommended dose for the age of your child) for a few nights, and then gradually increase the dose. Increase the amounts of fat in the diet of your child, particularly raw fat, such as raw butter and homemade sour cream (made out of raw cream). Another thing to consider is taking common worms under control, as their activity can lead to teeth grinding. Please look at questions on worms and parasites and their treatment with Vermox (mebendazole 100mg).

Enuresis (bed-wetting) and polyuria (excessive urination) are common concerns of parents before GAPS and seem to increase during the early stages of GAPS. Please comment.

Please, read my article on *Food Allergy*, which explains this issue in detail. Urine is one of the venues for toxins to leave the body. Abnormal gut flora produces a lot of toxins, which are excreted in urine. This toxic urine irritates the lining of the bladder and causes a low grade inflammation there, so the person gets symptoms of chronic cystitis. The bladder does not want to hold toxic urine, so the person has to empty it frequently. If a child (or an adult) with this condition is fast asleep, then the bladder may empty without waking up the person, hence bed-wetting. Die-off increases levels of toxins in the body, so the urine will become more toxic, exacerbating the problem. It is always important to control die-off by slow introduction of probiotics and various foods.

GAPS Programme will eliminate this problem long term, as it will remove its cause. In the meantime do what works to help the situation: drink plenty of water, supplements of cranberry help to reduce inflammation in the bladder, use various mechanical alarms and devices developed for enuresis, wake your child up a few times during the night and take him/her to the bathroom. Foods high in salicylates and oxalates can make the problem worse, so try to avoid these foods for a while until things get better.

When the natural defences of the mucous membranes of the bladder are damaged by toxins in the urine, then any infection can join in easily. So people with this problem get urinary infections frequently which have to be treated with antibiotics. Populating that area with beneficial flora will prevent urinary infections. So, I recommend applying homemade kefir or yoghurt all over the groin after showers and baths. Probiotic microbes will slowly travel up the urethra into the bladder, protect it and help it heal.

Should we be concerned with consuming foods high in manganese? Could children with autism have a similar condition to manganese madness? I heard that some cases of autism were greatly worsened by excess manganese being in the brain and a diet avoiding foods high in manganese was advised.

Manganese is an essential trace element involved in many functions in the body. Toxicity from manganese is known in industrial steel workers, particularly welders, who are exposed to concentrated manganese fumes and dust; some pesticides and pharmaceuticals have large amounts of manganese and can lead to an overdose. Infant soy formula has recently emerged as the new source of manganese toxicity, amongst many other harmful influences it has on a baby's body. Toxicity from food is generally not known, as in the food this element comes in a complex with hundreds of other nutrients, which balance each other out. Foods rich in manganese are soy, various greens (mustard greens, chard, kale, lettuce, collard, etc), pineapples, beans, maple syrup and raspberries grown on manganese-rich soil. Manganese deficiency can look very similar to excess: problems with balance and motor co-ordination, mood, behaviour, skin problems, reproductive problems, etc. In autistic children an excess in manganese is usually not due to high intake (unless the child was brought up on soy formula), but due to abnormalities in metabolism and general toxicity. These children show abnormalities in most elements we

test for: copper, zinc, magnesium, calcium, molybdenum, etc. To handle metals the body needs fat-soluble vitamins (A, D, K and E), protein and many other nutrients. As the child goes through the Introduction diet, these nutritional deficiencies will be slowly eliminated, so the child's body starts handling manganese and other metals appropriately. Soy, maple syrup and many varieties of beans are not allowed on the GAPS diet. While on the Introduction GAPS diet the person is not likely to consume pineapples, raspberries or greens to any degree. If a case of manganese toxicity has been diagnosed, then it is a good idea to avoid all greens and other manganese-rich foods until the tests are better. The same goes for infants who were fed soy formula. But, for majority of people following GAPS this issue should not be of concern.

Do you agree with current medical recommendations for delaying high-allergen foods such as peanuts and tree nuts? At what age should these foods be introduced to young children?

Please look at the *New Baby* diet on in the 2010 version of the GAPS book . About 2-3 months after the beginning of the diet I recommend introducing pancakes made with nut butter (hazelnut or almond). It is always a good idea to do the Sensitivity Test prior to introducing any new food, including nut pancakes. In my experience majority of babies tolerate these pancakes perfectly well, once they have been through all the previous stages of their GAPS *New Baby* diet.

My 18 month old has an extremely bloated belly. I know this is common during healing, but is there anything I can do to alleviate it? He seems uncomfortable, especially after eating. The bloating does not go down even after a bowel movement.

There is an excessive gas production in your child's tummy. Try to go back to the second stage of the Introduction Diet and keep your child on it for a while. Dill seed tea helps: put a teaspoon of dry dill seeds into a pan, add a cup of cold water and bring up to boil. Take off the heat and let it cool down slowly. Give your child 2-3 teaspoons with water or meat stock a few times per day. A small daily enema after passing stool will release old matter from the bowel quicker and speed up the healing process. For a child of this age it is best to use a bulb syringe enema kit; use warm water with a pinch of Celtic salt dissolved in it.

Since starting the diet my son's stools have consistently floated. Is this cause for concern?

Not at all. Whether the stool floats or sinks depends on its density, which in turn depends on the mixture of foods eaten.

In your book you mention that GAPS people often have an overgrowth of sulphate-reducing bacteria. If I suspect this to be the case in my child, should I avoid feeding him foods that contain high amount of sulphur?

No, do not remove sulphur-containing foods! Sulphur is essential to re-build you child's gut, immunity and liver function. GAPS people are already deficient in sulphur; they cannot get enough of it. As the gut flora starts changing the beneficial microbes will take care of the pathogens and normalise your child's sulphur metabolism.

Many parents who show the GAPS diet to their paediatricians are told that the diet is too low in carbohydrates and this can be harmful to the child?

There is no training in nutrition in medical schools, so generally your doctor knows no more than any lay person, who derives their knowledge about food from food industry advertisements in the mainstream media. The nutritional dogma, dominated by "science" funded by food industry, has pronounced proteins and fats as evil, so there was nothing else left to replace them but carbohydrates. So, the population has been subjected to decades of propaganda that we all need lots of carbohydrates, and doctors were brainwashed just as much as everybody else. Strictly speaking carbohydrates are the only macro-nutrient, without which humans can live perfectly well in good health. But we cannot live without proteins and fats, which have been vilified by the nutritional establishment.

If parents intend to vaccinate do you have a recommended vaccine schedule they should follow? What age to start, how often to receive, which order, etc?

Please, read the chapter on vaccinations in my GAPS book. In my opinion babies in GAPS families should not be vaccinated until the age of 4 - 5 years. Strictly speaking the only two vaccinations that can be considered important are tetanus and polio. Other vaccinations are not essential; in fact it is better to let your child go through those childhood infections. Just make sure that your child is well nourished and he or she will sail through those infections and come out stronger with a more robust immune system. It has been recorded that those people who went through measles, mumps and other childhood infections, virtually never succumb to auto-immune disease or allergies. And it is a fact that complications of these infections arise only in children, who are malnourished, particularly with deficiencies in vitamins A and D. If you decide to vaccinate, the order of the vaccines is not so important. What is very important is to have every vaccine separately; I do not recommend combined vaccines. It is also important to space the vaccinations at least 3 months apart. Make sure that your child is well nourished and has no colds, coughs or any other problems at the time of the vaccination. If any of the vaccines caused a reaction, let your child recover fully before considering the next vaccine: I would recommend waiting for about 6 months.

The latest stool analysis of my child has shown growth of Streptococcus in it. My doctor recommended an antibiotic, which made my child worse. What should we do?

I have to tell most of my patients not to rely on testing too much. Every test can only identify what it knows; it cannot find what it has not been designed to find. It is a fact that little knowledge can be more dangerous than no knowledge at all. There are many potentially pathogenic microbes in human stool and in the gut flora. The fact that the laboratory identified one of them does not mean that we must go chasing after it. Trying to kill streptococci with antibiotics we would kill many beneficial bacteria and activate other pathogens, which could have been dormant, and which may be far more dangerous than the streptococci. So, in the big picture in the gut the antibiotic would do more harm than good. We are dealing with an immensely complex microbial world in the gut, which we only just started learning about. We know very little yet, our modern science is in its infancy on this subject. That is why it is best to rely on centuries old wisdom of treating the gut holistically with diet and probiotics, giving it time and patience.

My son's fingernails have quit growing since we started GAPS over a year ago. I cannot remember the last time I cut them. Is this cause for concern?

No! I would not worry about it as long as your son is generally healthy and doing well. It is possible that his body is using nutrients for more important functions at the moment rather than building nails. As he gets well nourished and the body has plenty of nutrients to spare, his nails should start growing again.

My two year old son passes nearly all vegetables, well cooked, blended or otherwise undigested in his stools. Does this mean that we should be avoiding vegetables altogether for now? Is this due to a lack of microbes and something that will improve in time? It seems to me like it would not be healthy to exclude all vegetables form his diet.

If the stool is normal then don't worry about it, he will start digesting vegetables in time. If he has a propensity for diarrhoea then it may be a good idea to remove all vegetables and just follow the Introduction Diet without any plant foods at all for a while. When stools became consistently normal, you can start introducing vegetables.

I have a 7 month old infant that has been progressively spitting up more and more, which is probably acid reflux. Sauerkraut and sauerkraut juice has helped her a great deal, so that she's only spitting up once in a while. She has been on the Nourishing Traditions milk-based formula since 3 months old. I've read a lot that the lactose in the formula is designed to help in developing the infant's brain. I've read in your book and on the website that infants can be taken off formula after 6 months of age. Will that hinder the infant's brain development at all?

No, as long as you introduce vegetable soups and later on fruit. Please, follow *The Baby Diet* in my book.

My baby got acne – 2 weeks after she was born and still has it at 2 months. People say ‘it’s from the hormones she gets from me’ or due to the fact that ‘a baby’s digestive system still has not developed’. But if this is true then why do some babies not get baby acne? Could such acne be caused by food I eat that leaks through my leaky gut and gets into my milk? How do you know when baby acne is a sign of digestive issues and whether those issues are mine or my baby’s?

Chinese say that face is the mirror of the bowel. This is not likely to be hormones, but toxins. The baby can have spots on the face due to toxins coming from milk and due to toxins produced in her gut; possibly both are involved. So, try to change both your diet and your baby’s diet. If the baby is exclusively breastfed, then just changing your diet (to the Full GAPS diet) and giving the baby a probiotic should help.

My three year old has been on GAPS for 15 months. While we have seen lots of improvements in his digestion, his behavioural problems still linger. He is moody, whiny, clingy and obsessive. There have been days here and there where I have seen his true personality – without all the behaviours – and those days were glorious! I want so badly for him to feel this way more often. Am I missing something? Why do we still have such issues with behaviours when we have followed the diet strictly? Could we be feeding him something that he is reacting to without realising it? Could he be deficient in certain nutrients? We eat mostly meats, veggies, fats and fermented foods.

Your child may not be producing enough neurotransmitters in the brain, particularly serotonin and dopamine. A lot of serotonin and dopamine production happens in the gut, and it takes time for this function to recover. Lack of those two can make him moody, clingy and obsessive. An amino acid 5HTP is the pre-cursor for serotonin production in the body, while tyrosine is the precursor for dopamine production. These two amino acids need co-factors to work well: niacin, biotin, vitamin B6, folic acid, magnesium and zinc. There are many supplements on the market with these ingredients. For a three year old start from 50mg of 5HTP at bedtime for 5 days, then add the same dose in the mornings for 5 days, then move to 100mg at bedtime plus 50mg in the mornings. For tyrosine give 500mg in the mornings only. This measure is temporary to boost your son’s production of neurotransmitters. In about 3-4 months you may be able to slowly reduce their dose and remove them.

You mention in the GAPS book second edition that small children may look normal by size and weight but be missing many necessary micronutrients. Is there a time-age limitation for repair and restoration of the necessary micronutrients and damage from their lack?

No, there is no time-age limitation. Human body renews and restores itself all the time all through our lives. As soon as you change your child’s diet and life style, the nutritional deficiencies will disappear and the body will repair the damage.

My son is diagnosed with autism and has been on the Intro diet for 4 months. I've noticed an increase in his tensing body movements. Is something about the diet causing the increase is body tensing? What can I do about this to help?

This is likely to be die-off, particularly from *clostridia* family of bacteria and other microbes, which produce neurotoxins. These toxins cause abnormalities in muscle tone and muscle contraction. If this 'tensing' is tolerable, continue with the programme as it is. But if it is too much, slow down on the probiotic and fermented foods introduction. Adding some vegetable juices will help, because they will add potassium and magnesium into the body and lessen this effect. The best juice is carrot and celery, plus a little bit of lemon and a dash of cabbage and beetroot. Squeeze more fresh lemon into his water, which he drinks in the morning and during the day. Make the *Vegetable Medley* (the recipe in my book) and introduce as a drink, gradually. It is very rich in potassium and magnesium.

My son has terrible dust mite allergy. He has been on GAPS for a couple of months now and has since developed swollen adenoids that interfere with his ability to breath. Is there anything I can do to help shrink the adenoids while we continue on GAPS? I am wondering if he is allergic to something he is now eating on the GAPS diet.

It is possible that your son's immune system is re-structuring, so the adenoids got active. Try to put some probiotic on his tongue between meals and at bedtime to populate his mouth, throat and back of his nose with beneficial flora. Rinsing his nose with a salty solution every night will also help. And speak to an experienced homeopath about this problem.

We have been on the Full Gaps diet for five months now. My six year old son is very impulsive, anxious, hyper and sometimes aggressive. He's having a very hard time in school as well. I am wondering if there is anything I can do to support him as we progress through the protocol? Are there amino acids that would help him? I would like to hear more information geared specifically to ADHD children.

I would test your son for lead and other toxic metals, as in many cases of resistant ADHD there is an overload. You may want to do a hair mineral analysis and a urine test with provocation to start with (Kelmer test or an equivalent). It is best to work with a practitioner to interpret these tests such as a Certified GAPS Practitioner.

Make sure that he has plenty of animal fats with every meal, so his blood sugar level is stable. If there is a sleep problem as well, try to give him some 5HTP at bedtime, 50-100mg.

We did a test which showed that our son's methylation pathway is not working because he has a mutation on CBSC699T gene. Based on this test we were advised to cut down on protein and sulphur in the diet, and to avoid fermented foods as they can produce sulphur in the body. How can we implement the GAPS Diet if we have to avoid meat, eggs, fish and fermented foods?

I would recommend that you read about the new science of epigenetics. Our genes are not our destiny at all! Instead it is our diet and the environment (inside the body and outside) that pre-determine which genes get expressed and which genes will stay dormant. The character of toxicity in your child's body will also affect genetics; it will change your genes and their expression.

I have seen many parents trying to be very 'scientific' and that usually leads to confusion. Our science does not know everything; it only provides you with a few little pieces in a huge jigsaw puzzle, where most pieces are missing. Those few pieces can easily lead you astray. Methylation is one of the most basic chemical reactions in the body involved in hundreds of various functions. Most GAPS people, particularly autistic children, have impaired methylation; it is blocked and altered by toxins coming out of the gut. In order to restore methylation we need to remove toxins. In order to remove toxins we need to clean up the gut, heal the gut wall and restore the child's detoxification system. And in order to do all that we need GAPS Nutritional Protocol, as far as I know.

For a young child, is there an intake limit of the amount of protein and amount of fat they should be taking before it becomes too much or detrimental to their health? If so, what is a safe range?

You cannot artificially calculate how much protein, fat or anything else to eat. Don't even try it, as you will create more trouble than good for your body. As long as protein comes as a natural freshly cooked piece of meat, or fish, or fresh egg or dairy product, your child's body will know how to handle it. Provide your child with plenty of vegetables to go with these foods and trust his or her instincts to get the proportions right. Please, read more about it in *ONE MAN'S MEAT IS ANOTHER MAN'S POISON* in the "Resources" section.

The idea of calculating and limiting protein consumption comes from situations where proteins do not digest properly, absorb in a mal-digested form and cause autoimmune reactions, kidney problems and food allergies. This situation is due to the fact that the gut lining is damaged and porous. This leaky gut wall lets through improperly digested proteins. Focus on healing and sealing the gut wall with the GAPS Introduction Diet, rather than waste your time on forever calculating and limiting protein consumption.

What is your experience with children that have high levels of oxalic acid (as many children with autism seem to have) and the use of the GAPS diet? I have received warnings from people in low oxalic acid diets about the danger of using a high fat diet and oxalic acid in the body. Could you please elaborate on this?

Oxalic acid in the body exists in the form of salts called oxalates. The main reason for their increase is the body's inability to process them properly. That happens in GAPS patients for the following reasons:

1. They lack particular beneficial bacteria in the gut flora which break down oxalates. One species of this bacteria has been studied called *Oxalobacter Formigenes*. I am sure other species will be studied soon. *O. formigenes* is a normal part of healthy human gut flora and is very vulnerable to broad spectrum antibiotics; once the antibiotics wipe it out the person cannot process oxalates, so these salts build up in the body and cause symptoms.
2. The detoxification system in GAPS people is broken down and does not function well. Ample supply of sulphur is a vital part of the detox system, and people with GAPS are deficient in sulphur. So, they cannot process oxalates and many other substances in the body properly.
3. Magnesium deficiency is another part of GAPS. Oxalic acid is largely removed from the body through urine, and the safest salt to remove it as is magnesium oxalate. When there is not enough magnesium the body uses calcium instead which makes the person prone to forming kidney stones. Excreting this substance in urine can cause chronic inflammation in the bladder and urethra, causing burning and painful urination. People with abnormal gut flora have abnormal flora in the groin as well, which causes a low-grade inflammation. Urine full of oxalates (and other toxins coming from the gut!) irritate that already sensitive area and can cause vulvo-vaginitis and vulvodynia.

Foods rich in oxalates can be a problem for this group of people, as they cannot digest them well enough. These are plants: sorrel, spinach, rhubarb, buckwheat, star fruit, peppercorns, parsley, amaranth, beets, cocoa, coffee, tea and other plant foods. Follow the GAPS Introduction Diet, which excludes oxalate-containing plants at the beginning. As your gut starts healing and your gut flora starts changing you will find that you can gradually introduce various plant foods, even those rich in oxalates.

Animal fats are an important part of GAPS Nutritional Protocol. They are essential for restoring the detoxification system and immunity in the person. If there is a problem with digesting fats, please read the section on *gallstones* in the FAQs and follow the recommendations there. When your bile flow gets restored your liver will clean itself quite quickly and start processing oxalates appropriately.

To heal your bladder, urethra and vulva please look at the section *urinary problems* in the FAQs and follow the instructions there.

I am a nutritional therapist in the UK. I recommend your work but I am concerned about the recommendations for introducing egg yolks and animal proteins to infants. Please clarify how this is suitable for young children as it goes against many in the medical community?

Infants grow very quickly, so their bodies need a constant supply of building materials to build their brains, bones, muscles and other organs. The best quality building materials come from animal foods: fresh meat, fresh fish, eggs and good-quality organic dairy. Plant matter is difficult to digest and does not really feed the body; plants are primarily cleansers and provide some energy. Many plants, particularly grains, also have anti-nutrients in them which damage the gut lining. It is because of the misguided dogma of weaning infants onto grains that they develop leaky gut and start reacting to proteins. Please, read the chapter on New Baby in the GAPS book on how to wean an infant. A good example is FPIES (Food Protein Intolerance Enterocolitis Syndrome), a fairly new diagnostic label which is given to an increasing number of infants today. These are infants who develop severe digestive symptoms and are found to be 'allergic' to all protein on the planet. The standard medical advice is to avoid all protein-containing foods. I have a growing number of FPIES patients who recover beautifully on the GAPS Introduction Diet.

Can GAPS help children diagnosed with PANDAS? It is suggested that these children do not do well with S.Thermophilus strain of probiotic. If so, what do you recommend for these children?

GAPS Programme will restore your child's immune system, so it can deal with streptococci. I have not seen any problems with S thermophilus, but if you feel that it may be a problem you do not have to have it; there are many probiotics on the market without it, it is not an essential microbe.

How long do you recommend to have ABA and at what intensity? I am very interested to know because now my son progresses very well and I consider decreasing his ABA therapy from 12 hours to 6 hours a week.

It is very individual for every child, but majority of people do 35-40 hours per week in the first year, and then gradually reduce the intensity of the ABA programme. If the programme progressed well, many sessions are naturally replaced by play dates with other children, playground visits, etc.

My 4.5 year old has been on GAPS for 2 years. He still has huge behavioral and emotional responses when attempting to eat eggs, onions, and garlic. I would like to include all these healing foods in his diet, but the behaviors are unbearable. Does this mean he is sensitive to high sulfur foods? Will this resolve eventually with the "low and slow" method of introduction? I have tried that route many times without success. What can I do to help him be able to eat these foods?

Every child is different (every adult is different too). The fact that a food is allowed on the GAPS diet doesn't mean that your child will tolerate all of them: there may be foods which he/she will take a long time to adjust to. Try to increase animal fat consumption; it helps many people to start tolerating high-sulfur foods.

My two children have been on and off biting nails and mouthing on things. Some alternative health practitioners think that nail biting and mouthing is caused by a parasite or fungi in your gut. Please comment.

Nail biting is generally a recycling behavior: these children have nutritional deficiencies. Try to supplement high-nutrient super-foods, such as frozen bee pollen, sea plasma, seaweed and blue-green algae. A lot of mouthing is due to abnormal flora in the mouth. To improve it open a capsule of good quality probiotic on your child's tongue every bedtime and between meals.

How do you determine if a child has quirks due to a GAPS issue versus a childhood phase? For instance, stretching out the neck and mouth in an odd manner or complaining of areas 'feeling funny'.

If these behaviors are consistent then it is not normal. Observe your child closely without making them aware of it. To make sure that this is not an attention-seeking behavior, try not to give any outward reaction to it (behave as if you haven't noticed).

If you have come to the conclusion that this is not an attention-seeking behavior and more likely to be an involuntary movement (or some sort of tic), you need to take action. If the child is not on GAPS, try to implement it and see what happens. If the child is on the GAPS Diet try to analyze what foods were recently introduced, which may have contributed to these involuntary movements. It may help to trace back to the previous stages of the GAPS Introduction Diet. Supplementing 5HTP 50-100mg at bedtime may help.

My son has been on the GAPS Diet now for 2 years; it provided tremendous help with his digestive problems and seizures. He still has many developmental issues: the most debilitating is a great oral sensitivity and behavioral moodiness. Is there any further supplementing that you would recommend for behavioral-type issues of this nature?

A lot of oral sensitivity is due to abnormal flora in the mouth. To improve it open a capsule of good quality probiotic on your child's tongue every bedtime and between meals.

Moodiness and behavior problems are often due to metal toxicity in the body. Try to test your child for lead and other toxic metals. Make sure to keep his blood sugar level stable by giving him plenty of animal fats with meals and snacks. At bedtime try to supplement 5HTP 50-100mg, it will boost his serotonin production and have a calming effect.

What is your opinion on the use of glycerine suppositories for children? I know you recommend enemas, but so far this has been impossible to carry out on my 3-year-old. The glycerine suppositories do work well as she has bowel movements usually about half an hour later.

As an occasional remedy it is OK to use glycerine suppositories, as well as castor oil or magnesium oxide powder. But in the long run you need to work on healing the gut and removing constipation. One of the most common reasons for constipation is poor fat digestion, please read about it in the FAQs under 'gallstones' and 'liver'. There are many other measures you can take to remove constipation long-term, please read about it in the FAQs under 'constipation'.

Since my children have been on the GAPS diet their cholesterol levels have gone very high. Is this to be expected on the diet?

High blood cholesterol is good news: it means that the body is healing itself, repairing damaged tissues. GAPS provides the body with ample resources to finally get round to healing and repair, which it may not have had before. Please read about this in detail in my book *Put Your Heart In Your Mouth*.

Can GAPS help a young child with Tourette? Are there any foods they may be particularly sensitive to?

Yes, GAPS Protocol helps people with Tourette. Implement the diet first and be prepared to go through the die-off stage, when the symptoms of Tourette may get worse temporarily. For majority of patients it is important to go through the Introduction diet, to heal their damaged gut wall (as long as the gut wall is damaged the person can be sensitive to any food). When the diet is well-implemented, the residual symptoms respond very well to supplements boosting serotonin (5HTP with co-factors), and dopamine and noradrenalin (tyrosine with co-factors) production. It is important to start these supplements from a small dose, and then gradually increase the dose until an individual dose is found, which works for the person.

Can you explain teenage encopresis? How can a parent help?

Encopresis is a term describing leakage of faeces between visits to the toilet. Apart from soiling of underwear it can cause irritation and inflammation around the anus. It can happen at any age and is a sign of abnormal bowel flora.

GAPS Nutritional Protocol will remove this problem long-term.

As a short-term remedy a cleansing enema will do the trick. First wash out the bowel with 1-4 water enemas (adding 1 teaspoon of natural salt and 1 teaspoon of bicarbonate of soda per 1 litre of water). When there are no more solids coming out (the bowel is fairly clean), do a probiotic enema: add a few capsules of a commercial probiotic or ½ a cup of homemade whey or kefir into 1 litre of warm water. When doing all of the enemas

use homemade sour cream as a lubricator for the nozzle and the anus; it will soothe and heal that area as well as help to populate it with beneficial microbes.

It may be necessary to do the enemas regularly in the initial stages to keep encopresis under control, while working on the gut flora with the GAPS Diet.

With a child or a teenager the first enema is crucial: if it is comfortable and feels safe then the child will be happy to do it again in the future. I strongly recommend that the mother (or another carer) does a few enemas on herself first before attempting it on the child. Having experienced it on herself she is more likely to be confident and relaxed when performing an enema on her child. With teenagers the mother may have to help only with the first enema. Once the teenager understood the procedure, he or she will be able to do it on their own.

My youngest daughter has Neurofibromatosis type 1 (NF1). Do you have any experience with using GAPS in this situation?

This is a genetic condition, and I have no experience with it. However, following GAPS Programme will keep your child's immune system strong, which is always a good thing, and her digestive system will work better. So, it will be easier for both your daughter and you to cope with this disorder.

My baby has reflux (throwing up milk) and burping after breastfeeding. I have been following the GAPS Diet since before pregnancy. It even sometimes disturbs her sleep. Is this normal? What can be done to prevent it?

Most babies bring some milk up after feeding in the first few weeks of life. But if it persists and is fairly severe then it is likely to be yeast overgrowth in the stomach. I find that simply supplementing a good quality probiotic helps to remove this problem. Open a capsule of the probiotic and dust your nipples before every breastfeeding.

It is very important for the mother to be careful with her diet while breastfeeding, as most things in her blood will be in her milk. So, if the mother has yeast overgrowth in her body she will be passing it to the baby in the milk. It is not possible to remove yeast from the mother's body quickly, that may take years. But it is still better for the baby to be breastfed, even under these circumstances. So, just do your best by adhere strictly to the GAPS Diet while breastfeeding, making sure to have plenty of animal fats, organ meats and other immune-boosting foods.

I breastfeed my baby and every time I eat ghee, butter or sour cream she gets windy. However, she tolerates a teaspoon of whey from goat's kefir. Why does this happen and can I introduce butter and ghee into her diet?

Cow's dairy is a major allergy cause in our world because cow is the most commercialized animal, many breeds are man-made and produce milk which is far from Mother Nature has intended it to be. Goats, sheep, deer, camel, donkey and other animals

have not been commercialized to the same degree. That is why their milk is natural and is tolerated much better. So, I would avoid cow's dairy products and use only goat's. If your baby tolerated goat's kefir work on increasing its amounts per day. The more of this kefir your baby will start consuming every day the healthier she will be.

How would you explain the case of my fraternal twin boys born to the same mother at the same time; they should have inherited the same gut flora. One has no learning problems and no impaired motor skills while the other has learning problems, hyperactivity and poor motor skills.

It sounds cruel but the woman's body uses pregnancy as a chance to clean itself; it dumps toxins into the foetus. This is a major cause of miscarriages and stillbirth (the toxicity was enough to kill the foetus). Babies are born with different toxic load, depending on how toxic the woman's body is. In twins there is always a dominant twin, which is usually slightly larger and stronger. The non-dominant twin is the one that gets more toxins; the body chooses one as a 'dumping ground' and leaves the other to survive. The weaker one has a weaker constitution and is more prone to problems.

CHOLESTEROL

I have been on GAPS for almost 6 months. I am seeing a naturopath and we recently discovered through testing that my cholesterol is extremely LOW. She is baffled by this because I eat LOTS of animal fats every day! She thinks this is the source of my problem because cholesterol is so important for so many things, however, she doesn't know why this is. Do you happen to know of some reasons why cholesterol isn't absorbing?

Only about 15% of blood cholesterol comes from food, the rest – 85%- is produced in the body, primarily by your liver. It is likely that cholesterol production in your body is impaired. The usual reason for that is an accumulation in the body of industrial toxins, man-made chemicals, which block the bio-chemical steps in manufacturing cholesterol. Try to step-up your detoxification efforts: sunbath as much as possible, swim in the sea, have baths with Epsom salt, sea salt, seaweed or bicarbonate of soda, have freshly pressed juices (particularly green juices) and GAPS milkshakes, sweat as much as possible (saunas, hot mud treatments and hot mineral baths). To help your body, try to supply more cholesterol through eating raw fats (raw dairy, raw egg yolks, raw bone marrow and cured pork fat); raw fats are easier to digest and assimilate.

CONSTIPATION, DIARRHEA, STOOL ISSUES

What is your opinion on colonics for treatment of constipation?

I recommend colonics and enemas. This subject has been covered in detail in my book.

What can be done for consistent but hard stools (once or twice a day) that result in anal fissure? Enemas only seem to worsen the situation.

Please read about gallstones in FAQs. The situation you described is usually due to low bile availability. You need to have GAPS 'milkshakes' for a few months to remedy the situation.

Since starting the GAPS Introduction diet my son has had constant diarrhoea. He did not have it before starting the diet. I have not found anything to help. What do you recommend?

Diarrhoea is a natural cleansing reaction; your son's body is removing something toxic through the bowel. Toxic metals, for example, (such as mercury and lead) are removed largely through the bowel. So, don't worry about it too much as long as your son doesn't lose weight and is generally not unwell. In a proportion of GAPS people the programme initiates major toxin removal; when the body has finished with that diarrhoea stops. Put your son on the 1-2 stages of the Introduction Diet, it is important to introduce homemade kefir or yoghurt from the beginning (they have an excellent ability to firm up the stool). You may need to clear parasites and worms; do the worm cleanse and ask your family doctor to test for protozoa in his stool (such as giardia and amoeba).

If constipation persists for several months, does it mean you are doing something wrong? Is there anything you recommend in addition to enemas and juicing to help this?

Try to replace high-protein dairy with high-fat dairy. In my experience adding high-protein dairy: whey, yoghurt and kefir, does miracles for those who are prone to diarrhoea. Constipation, however, is a different matter. If your patient is prone to chronic constipation introduce high-fat dairy: ghee, butter and sour cream, but not high-protein dairy, such as yoghurt, whey, kefir and cheese: high protein dairy can aggravate constipation. High fat content of sour cream will lubricate the gut wall and soften the stool.

How is it that flax seeds can be used for constipation? Won't they damage the gut lining like other fibrous foods?

I do not recommend taking flax seeds, particularly in the initial stages of the programme. When soaked overnight, flax seeds absorb a lot of water and turn into a jelly. It is thought that this water-absorbing quality of flax seeds helps with constipation. However, it does not help everybody, and yes, flax seeds are very fibrous and have other anti-nutrients.

After 2 years on GAPS I still have undigested vegetables in my stool and they take about 3 days to go through my digestive tract. I keep reading that any undigested food

feeds pathogens and fungi. Is this true and if so, should I just cook the veggies in my broth and then strain them out? I assume after cooking the veggies for 35-40 minutes all the nutrients are in the broth anyhow?

It is normal to see some undigested vegetables in your stool, particularly if they were eaten raw and not chewed very well. It is also quite normal for them to take three days to get through your digestive tract. They do not feed microbes any more than any other food would do. Raw vegetables are important to eat, as they provide active enzymes and other nutrients, which are destroyed by cooking. Providing that you have no diarrhoea, you do not have to cook all your vegetables. Indeed, when you boil vegetables, a lot of nutrients from them finish up in the water. That is why it is best to eat boiled vegetables as a soup with the broth you cooked them in, so no nutrients are wasted.

I have recently begun juicing – just green veggies. I have severe candida overgrowth. My question has to do with the colour of my stools. They are very green. Does that mean I am not digesting them well and should I stop? Or do I push through and it will eventually resolve itself?

Yes, it should resolve itself in time. It is the same as when people start drinking lots of carrot juice, their skin turns yellow. Try to whisk some raw eggs and raw sour cream into your juices: this will turn them into delicious smoothies, which will balance your blood sugar and boost your immunity. It will also assist the absorption of chlorophyll from your green juices, so it does not escape in your stool.

If a food causes a minor upset, such as gas, phlegm, slight change in stool, etc., will healing be prevented if this food is continued to be consumed?

These reactions tell you that your digestive system is not ready for that food to be introduced. Remove it for a couple of weeks, then try again as a part of your meal; not on its own, and not on an empty stomach. Please read *Food Allergy* (Available in the Resources section) to learn more.

Since starting the diet my son's stools have consistently floated. Is this cause for concern?

Not at all. Whether the stool floats or sinks depends on its density, which in turn depends on the mixture of foods eaten.

If GAPS patients see undigested food in their stool, should the undigested food be avoided?

Not necessarily. There are many foods that go through most of us undigested, such as sweet corn, for example. If there are symptoms, such as abdominal pain, flatulence, etc, as well as undigested food in the stool, then it may be sensible to remove it for a while and see if that helps.

Since going on GAPS I have not had a bowel movement. When having enemas the water is expelled and then a bowel movement is stimulated, but it is not a formed stool - it is only mush or water mush. Is this to be expected or does it indicate something? Should I somehow be treating for diarrhoea as well as constipation?

Of course the stool expelled during an enema is not formed: the water you put into your bowel dilutes it and turns it into a mush. If constipation is consistent, then there are several things you can do:

- Have more cooked vegetables and gelatinous meats, and reduce muscle meats in your diet. Increase animal fat consumption with your meals.
- Replace yoghurt and kefir (high-protein dairy) with sour cream (high-fat dairy). Make the sour cream at home, preferably from raw cream, using yoghurt culture initially, then start using kefir culture. This measure along helps many people to resolve constipation.
- Introduce juicing earlier: make a juice from a mixture of fruit and vegetables, and then whisk 1-2 raw eggs into it and a generous dollop of homemade sour cream. This will make a delicious “milkshake”, which will provide you with magnesium and other substances. Drink your GAPS milkshake first thing in the morning, about 20-30 minutes before breakfast. When making juice use high-magnesium fruit and vegetables, such as oranges, celery, apples, carrots, cabbage, beetroot and greens.
- Supplementing magnesium may help: use amino acid chelates of magnesium as a daily supplement. As a laxative you can use magnesium oxide occasionally.

When reading your recommendations for constipation it seems to me that dairy plays a key role. What if you cannot tolerate dairy?

Constipation is not about dairy, it is due to lack of beneficial microbes in the gut and an imbalance of the intestinal nervous system: the sympathetic nervous system is too active, while parasympathetic is suppressed. By restoring gut flora with probiotics and diet, we resolve constipation long-term. Short-term we need to re-balance the nervous system with diet. In order to activate the parasympathetic nervous system and to calm down the sympathetic one we need raw juices, rich in magnesium, potassium and other substances; we need more animal fat with meals, and we need to change the ratio of vegetables to meats in our meals (less muscle meats and more vegetables with gelatinous meats). Please, look at the previous question.

How do we best make the transition from enemas (used every night for months) to unassisted daily relief?

I recommend leaving it without an enema for 2-4 days: your bowel should start producing stools. In the meantime start your day with a freshly pressed juice of oranges or grapefruit. Eat cooked beetroot regularly. Avoid sweet vegetables, such as winter squashes for a few weeks. Take HCl & Pepsin 1-2 capsules at the beginning of your meals. Try to take supplements of spirulina, blue-green algae, chlorella or dunaliella;

many patients find them very useful in resolving constipation. Please, see other questions on constipation, which will help you with dietary changes. If there is no stool after four days of waiting, do an enema with 1 teaspoon of bicarbonate of soda + 1 teaspoon of sea salt per litre of water: do just 1 litre to empty the lower parts of the bowel without getting higher. It will take time for your bowel to start functioning normally again after long-term enemas, so be patient and give yourself plenty of time for opening your bowel. It helps to distract your mind from opening our bowel while on the toilet, so read a book or occupy your mind with something else. Leave it to your bowel to do the job, it knows what it is doing and your mind can actually interfere with the process.

My two year old son passes nearly all vegetables, well cooked, blended or otherwise undigested in his stools. Does this mean that we should be avoiding vegetables altogether for now? Is this due to a lack of microbes and something that will improve in time? It seems to me like it would not be healthy to exclude all vegetables form his diet.

If the stool is normal then don't worry about it, he will start digesting vegetables in time. If he has a propensity for diarrhoea then it may be a good idea to remove all vegetables and just follow the Introduction Diet without any plant foods at all for a while. When stools became consistently normal, you can start introducing vegetables.

Please comment on mucous in stools.

Mucous is the natural way for the gut lining to clean itself. So, if you have too much mucous it means that your gut is cleansing. That is good news and should not be taken as anything to worry about. When your gut has completed its cleansing, the mucous production will naturally go down.

Many people report improvements on the diet, but still get diarrhoea when eating raw veggies. Does juicing help prepare your body to handle whole raw vegetables? Would taking enzymes be appropriate and aid in preventing diarrhoea from raw vegetables? Are there any other specific things that one should focus on in order to be able to tolerate raw vegetables?

Homemade kefir and yoghurt will help you to tolerate raw vegetables, as they remedy diarrhoea quite quickly. Enzymes can be helpful, particularly those which digest phenols. Taking enzymes is a temporary measure, but they may allow the gut to complete its healing and next time you may be able to tolerate raw vegetables. Juicing will allow the gut heal quicker and hep the body to clean the toxins out, which will improve digestion. It is a matter of patience, just give your body time and, when it is ready, raw vegetables will become easy to digest.

From reading your book, it seems like one of the main indicators in healing is the patients' stool. What does it mean when a person's stool is well formed, but it is difficult to pass and never feels like the colon is completely voided? The stools are also

very pasty and difficult to clean. Is there anything that can be done to improve this problem? Is there a good ratio of fat to fibre that should be followed that makes stools slide out more easily?

It means that the gut flora is still not normal. Another reason for pasty stools which are difficult to pass is poor bile production. Please, read the section **LIVER** to understand this issue. Try a course of enemas to clear the bowel completely, and finish with coffee enema to flush the liver and improve bile flow.

Can you explain what constipation in a baby is like? Is it just delayed stools?

The stools are hard and difficult to pass; the baby has to strain a lot and can start crying. More than 2 days between stools is generally not normal in a baby; healthy babies usually pass one or more stools every day.

Can you please explain all of the things that will help with consistently pale-yellowish stools (bile production and absorption of fats)? This is in a young child who has already been through Intro diet and is still on the Full GAPS diet and who eats lots of healthy traditional fats.

Don't worry about the color of the stool; it will become normal when the gut has healed. The pale color can be due to low bile output and high levels of probiotics in the diet: the bile makes the stool brown while probiotic bacteria make it look pale. The digestive system of your child will find the right balance at some point when it has completed cleaning itself. Use the GAPS milkshake daily to restore the bile flow (you will find the recipe in the *gallstones* section in FAQs).

What may be the cause of stomach discomfort after bowel movements? I have seen this mentioned as a possible IBS symptom, but I haven't found an explanation.

Usually the cause of discomfort and lingering pain after bowel movements is compaction and inflammation in the bowel. Compaction is when old hardened faeces are literally glued to the wall of the bowel and do not shift when passing a stool. They are always surrounded by an area of inflammation.

The best remedy is a course of enemas.

Castor oil applications on the abdomen will also help by slowly and gently dislodging the compacted masses. At bedtime apply a handful of castor oil on the abdomen massaging it gently clockwise for a few minutes. Cover with a cotton cloth and put a hot-water bottle on your tummy. Go to sleep. Repeat this procedure at every bedtime. If enemas are not used, depending on how serious is the compaction; you may have to do these applications for a few weeks. Combined with enemas the compaction can be cleared much quicker. Following the GAPS Introduction Diet will help even further.

How many times a day should we have a stool? I am wondering if there is an ideal transit time. If the food comes out in a few hours after we have eaten it, is this a sign we need medical attention? I did GAPS for 2 years and my symptoms improved, then I ate bread/grains/sugar for 6 months and the symptoms came back. I just began GAPS again 2 weeks ago and my transit time is between 3-10 hours, I am having 3-5 stools per day and losing weight quickly (don't have any more to loose really). Is there anything we can do to slow down digestion?

Your transit time is too fast, the food does not get the chance to be digested properly and feed you, hence the weight loss. I recommend that you go on the Intro diet immediately and introduce homemade yoghurt and kefir from the beginning. This will slow down your digestion, so the food can start feeding you.

Generally a meal should take around two days to pass through you; 1-2 stools a day is normal.

What causes gastro-paresis (slow stomach emptying)? Does its presence change the suitability and implementation of the GAPS programme in any way?

In many GAPS people the stomach wall has an overgrowth of pathogens, various microbes which normally should not be there. They produce toxins which have an ability to paralyze the muscles of the stomach, causing gastro-paresis with slow emptying. The same situation happens in the bowel causing slow transit of food and constipation. Work on the GAPS Nutritional Protocol to remove pathogens and replace them with beneficial flora, and your paresis will go away.

COOKING, PREPARATION, INGREDIENTS & MISC FOOD

In the GAPS book you state that patients should not cook with olive oil because "heating will destroy a lot of nutrients and change unsaturated fatty acids into trans fats". I have seen that many researchers disagree with this. Can you please provide more information?

Generally cooking with any plant oil is an unhealthy practice because it causes an overload with omega-6 fatty acids (plant oils contain large amounts of omega-6 and olive oil is no exception). It has been demonstrated in many studies that cooking with plant oils is a major cause of degenerative disease in our modern world. Human body has not been designed to consume such large amounts of omega-6 fatty acids. On top of that these omega-6 fats are unsaturated and fragile (easily damaged and converted into trans fats), please read about this in detail in my book, chapter *Fats: the good and the bad*. Cooking should be done with animal fats because they have the right fatty acid composition for the human body and they are far more stable in cooking than the plant oils.

In terms of fatty acid composition olive oil is largely made out of oleic acid which is mono-unsaturated and can be damaged to become a trans fat. The reason why olive oil keeps so well is all the antioxidants and other phytonutrients it contains in its raw state – they protect the unsaturated fatty acids in the oil from damage. It is these antioxidants and phytonutrients that give olive oil its health-promoting properties. Heating destroys those valuable substances (removing the olive oil's health-giving abilities) and will alter the composition of the unsaturated fatty acids in it. Because these fatty acids in olive oil are mono-unsaturated they are not as prone to damage as polyunsaturated fatty acids; that is why some researchers consider it to be safe to cook with olive oil. However, safe is not necessary healthy. In my opinion virgin cold-extracted olive oil is a wonderful health-food and should be consumed as such at the pick of its health-giving ability, which is without heating it.

Can you tell me if dandelion root is allowed on GAPS? Dandelion root is high in inulin, but in your FAQ list you mention dandelion root to help with liver support. Also, is there a difference between dried root, fresh root and roasted root in terms of effectiveness?

Yes, dandelion root and plant is allowed on the GAPS Diet, particularly if you use it in juicing. I would use it raw (fresh and dried), in this form it is a good liver cleanser. As you cook it this ability will be reduced dramatically or destroyed.

Can pasteurized butter be used for making ghee since making it involves heating it? Or is it better to use raw butter for making ghee?

Yes, it is fine to use pasteurized butter for making ghee though using raw butter produces a better-tasting ghee.

What is your reference source for deciding if a food's carbohydrates have acceptable sugars, or starches that GAPS folks can't digest? I would like to be able to reverence these on food items not listed in the book. A related question: some foods get much sweeter when baked or roasted (carrots, winter squash, and beets) than they do when boiled. Is there any difference in the carbohydrate content in those situations, and if so, are both OK to consume?

Elaine Gottschall has conducted research into composition of common foods, which is the basis of the SCDiet. Of course it is impossible to research all foods, so here comes clinical experience (which I largely rely upon). The lists of allowed and not allowed foods in my book are built on the SCD research and clinical experience. Eating is an interaction between two: food and the person that eats it – food that one person can eat without any trouble can make another person quite ill. So be careful at the beginning of the programme; once your digestion becomes better you will find that many foods you could not tolerate before (though they are on the allowed list) you now can eat without any trouble.

Cooking vegetables in water: a lot of sugars from beetroot, carrot or winter squash finish up in the water that is why they do not taste as sweet as baked ones. If you worry about these vegetables it is always better to start eating them in a soup; later on see if you can tolerate them cooked on their own.

You recommend baking with nut flour. I wonder, doesn't baking convert the fatty acids in the nut flour into unhealthy trans-fatty acids?

All natural foods are changed by cooking. That is why there are strong proponents of eating only raw foods, including raw meats and fish. However, many foods are hard to digest in their raw form particularly for a person with a damaged digestive system. Also eating only raw food is not practical or acceptable for the majority of people on the planet. Yes, some of the structure of the food will get altered and damaged in the cooking process (including production of trans-fats), but as long we start with a natural unprocessed food and cook it at home most of it is still perfectly acceptable for the body to use. Nuts and nut flour are no exception: tens of thousands of people recovered from disease and feel well eating them on the GAPS Nutritional Protocol.

Why is bicarbonate of soda for baking not recommended in the GAPS diet?

GAPS patients almost invariably have low stomach acid production. Bicarbonate of soda is a strong alkali and will reduce the stomach acid even further. Please, read the chapter 'Digestive Enzymes' in order to fully understand this issue.

When making broth, is there any nutritional difference between shorter cooking times as described in the GAPS book and extended cooking times as recommended by WAPF? What about adding vinegar while cooking?

In the GAPS book I have described how to make meat stock. There is a difference between meat stock and bone broth. Meat stock is made with raw meat on a bone and it needs to be cooked just long enough to cook the meat thoroughly (2-3 hours), so it can be eaten, and so the bone marrow can be taken out of the bone and consumed. The meat stock made this way is usually clear and delicious, with an excellent nutritional value: it is particularly rich in amino acids. Bone broth is made out of bones which can be raw or cooked or a mixture (many people collect cooked bones from their meals, keep them in the freezer and use them for making the broth). In order to leach minerals out of the bones we add vinegar to the water. It is not necessary to add vinegar to the meat stock unless you need it for a particular taste. Bone broth may have quite a different nutritional composition from the meat stock and a different taste. Both are beneficial and should be used in GAPS diet.

I don't understand why GAPS allows honey, given the amount of fructose? According to Dr Lustig, fructose is a potent toxin which cannot be digested and goes 100% straight to the liver.

If you start analyzing/dissecting any natural food 'scientifically' you will find toxic (sometimes downright poisonous) substances in it. Yet, as a whole the food works. This is the wisdom of Mother Nature – the thousands of various 'ingredients' in natural foods are all balanced with each other. Natural honey does not equate to fructose, the fructose in it is balanced with thousands of other natural substances, as a whole making it a beautiful healing food. Clinical experience and wisdom of generations of people in traditional cultures can testify to that.

The concern about fructose comes from research into HFCS (high fructose corn syrup), which is a great profit-maker for the food industry. It is added to most soft drinks, breakfast cereals, sweets, snacks and other processed foods. The more our science researched it the more they found just how deadly HFCS is. As it usually happens, instead of addressing the toxicity of HFCS the authorities picked on one ingredient in it – fructose, and started attacking all other foods which contain fructose.

You can never compare something made by mankind with something made by Mother Nature. Man-made things are generally bad for your health and destructive to all life on the planet. Things made by Mother Nature are well-balanced and generally healthy and healing. Sounds simple, but it is very true!

Is baking with honey safe?

Dried fruit as a sweetener in baking would be a better option. Natural good quality honey is "alive", which is why it is recommended to buy unpasteurized, untreated honey, straight from the bees and collected in ecologically clean areas. However, in some recipes honey works quite well. From my clinical experience and the experience of Elaine Gottschall there have never been any "toxic" reactions to baking with honey.

What are the requirements for fruit as it relates to the GAPS diet? How should GAPS patients evaluate fruits not listed in the book (durian and lychees, for example)?

Fruit is not essential to eat, strictly speaking; we can live without it perfectly well. But, of course, it is delicious and nice to include into the diet, particularly for children. It is important to make sure that your gut is ready for fruit before introducing it. Fruit must be ripe! It is best if it was ripened on the tree, so look for locally grown fruit. When several fruits are introduced and there are no problems with digesting them, then you can experiment with fruits which are not listed, such as lychees and durian: your body will let you know if you are ready for them or not.

Is there a limit to the amount of nuts and nut products one should consume on the GAPS diet?

All foods should be consumed in sensible amounts, including nuts. I have met many families who 'started the SCD'. The trouble was that their version of

SCD was lots of baking with ground almonds, because so many GAPS children are fussy with food and would only accept sweet things. Naturally these families did not see the expected improvements, because no child or adult can live on ground almonds and honey most of the time. Nuts are very fibrous and hard work for the digestive system, that is why they are introduced in later stages of the GAPS Diet, and only when the severe digestive symptoms are gone. I recommend that many patients ferment nuts in the initial stages, as it makes them more digestible. If the GAPS Introduction Diet is followed correctly and nuts are introduced at the right time, the majority of patients find no trouble with eating sensible amounts of nuts.

I recently heard a natural health doctor recommend avoiding organ meats as they are far too toxic today as well as all pork foods which contain parasites. I'd be very grateful to hear your opinion on that as there are some of my main sources of animal protein.

Organ meats do not accumulate toxins; they are no more toxic than muscle meats. Pork always had more parasites than other meats, that is why it is recommended to cook pork well or cure it with salt.

In the GAPS book it says to use raw nuts only, not roasted. I wonder why? I can eat raw nuts instead, but pecans, for example, have a richer flavour if gently roasted. Is home roasting of nuts recommended?

I recommend buying raw nuts, not roasted, salted or processed in any other way, because we cannot trust the industry to process nuts for us. At home we use them for baking, which cooks them. So, you can roast them gently at home, making sure not to burn them.

Is parchment paper safe to use in baking?

The short answer is yes. I am sure there are things in the paper which in theory may be problematic, but I have never met anybody who reacted to baking paper.

Is there a concern about worms in raw salmon? Should we freeze salmon for 2 weeks before eating it raw?

From the clinical point of view I haven't seen any problems with eating raw salmon marinated at home. If you are concerned, yes, freezing it for 2 weeks will reduce the possibility of worm infestation.

Could you tell me why some cheeses are allowed on the diet while some others are not? What is the criteria that makes a cheese allowed? How can I be sure if it is OK to eat a cheese as many are not listed in the GAPS book?

The list of allowed cheeses has been provided by Elaine Gottschall, who researched this subject, measuring lactose levels in cheeses. However, that was many years ago; cheese production methods change all the time and new varieties of cheese come to the market. So, if the cheese is not listed, find out how the cheese has been made. You want to know if it was fermented in a traditional way and no other ingredients have been added after fermentation. It is best to get mature cheeses, which have been fermented long enough to remove all lactose and to pre-digest protein. You have to be sure that your body is ready for this cheese, so try a tiny piece first and see what happens; your body will let you know if you are ready for it.

Are these GAPS allowed: goji berries, palm oil shortening, cocoa butter, pigeon peas?

Goji berries and cocoa butter are allowed. Palm oil shortening is quite processed, so I would be cautious with it. Pigeon peas are hard to digest, so try them later in the diet and see if you can digest them. In traditional cultures they are often sprouted first before cooking to make them more digestible.

When can cocoa or cacao be introduced?

Cocoa is SCD illegal. However, I find that many people can start having it occasionally on the Full GAPS Diet, once the digestive symptoms are gone. Find pure organic cocoa powder. Mixing the powder with some honey and sour cream makes a delicious dessert, and you can add it to your homemade ice cream or cakes. After trying it for the first time, observe your patient for any reactions. Cocoa is very rich in magnesium and some essential amino acids and, unless your digestive system is not ready for it, there is no need to avoid it.

I have seen a lot of controversy regarding flax and chia seeds and their mucilaginous properties. Are either of these seeds GAPS-legal, and if not why? What about flax oil? It is mentioned in the GAPS book that it should not be taken alone. How/when should it be taken?

Flax and chia seeds and oils are allowed on the Full GAPS diet. As a whole seed they are very fibrous and should not be consumed until diarrhoea has cleared completely. People who are prone to constipation find it useful to take a teaspoonful of these seeds every morning, after the seeds have been soaking in water over night (they become jelly-like). The oils from these seeds must be cold pressed without application of chemicals or high pressure. The oil of flax is too high in omega-3 fatty acids - that is why I do not recommend supplementing it on its own. It is better to take it in a mixture with other cold pressed oils, such as evening primrose oil or starflower oil. Chia oil is new on the market; it appears to have a more balanced fatty acid composition, so it may be OK to take it on its own. However, it is a good idea to alternate oils in your diet, not sticking to one particular oil for long periods of time, as all of these oils have their own pluses and minuses. Also, it needs to be remembered that the bulk of fats in the GAPS diet comes from animal

foods; these oils are just a supplement, taken in a complex with animal fats, olive oil and coconut oil.

Is there any specific ratio of meat to vegetables that GAPS patients should adhere to?

There are no exact ratios, as it depends on the weather and your physical state. In cold weather you may want less vegetables and more meat and hot meat stock. In hot weather you may want more salad and lighter meals with less meat. Listen to your body, it will tell you what it wants on any particular day.

Is it necessary to consume both cooked and raw food? Can one follow the Primal diet and GAPS diet simultaneously?

When we talk about raw and cooked we have to separate the animal products from the plant foods.

Plant foods: in a raw state they contribute live enzymes and other undamaged active substances, which clean and detoxify the body, but they do not feed us too well, as raw plants are largely indigestible. Cooking plants makes them more digestible, so they feed us better, but the live enzymes will be gone. Fermentation makes plants more digestible and full of enzymes, as well as probiotic microbes; and there is no cooking involved. So fermented plants are often better than raw or cooked, and indeed in all traditional diets plant foods were largely consumed fermented. Some seasonal plants, such as soft berries, should be eaten straight from the bush to the mouth. They haven't got much in them to feed us, but they are full of detoxifying substances. The best way to preserve berries is fermentation, for example making vinegar.

Animal products: dairy should be consumed either raw or fermented. Egg yolks should be consumed raw. Whites can be consumed raw as well, but their slimy consistency and taste are a problem for many people, so I recommend gently cooking the whites, leaving yolks raw or minimally cooked. Raw meats are a good source of parasites and infections, particularly in our modern world where food travels long distances. Yes, raw meat is full of active enzymes and other good things, but we can add enzymes to the meal by eating cooked meat with fermented and raw vegetables. If you had a chance to get organic meat fresh from your local farmer, then you can preserve some cuts of it yourself without cooking by salting it in a traditional way, fermenting or making meat jerky. Softer cuts, such as fillet steak you can eat raw making traditional dishes, such as steak tartar. Many lean muscle meats can be cooked rare or medium rare, particularly lamb (which is considered to be the cleanest meat). Most of other places on the animal will have meat too chewy to eat raw, so it is best to cook it. If you were lucky to get hold of a fresh wild salmon, I have some recipes in my book on how to marinate it without cooking. Most other fish needs to be cooked very lightly, as overcooked fish and shellfish become tough and chewy. Apart from wild salmon I do not recommend to eat raw fish, as it is easy to pick up parasites from it, as indeed is a common problem in Japanese who eat raw fish regularly. You cannot eat bones and joints of animal or fish raw, so we make meat and bone broth from them. That way nothing gets wasted.

So, as you can see it is possible to combine Primal diet and GAPS. It is a matter of balancing your meals to include cooked foods and raw foods, which you feel comfortable and safe eating, and find tasty and appealing. It is important to enjoy your food, not only focus on its nutritional value!

Why are smoked foods not allowed? Is it the actual process or is it the commercial process and extra additives, sugar, etc. that need to be avoided. We have thought about smoking our own salmon or bacon.

In the initial stages of the GAPS Programme the gut of the person may not be able to handle the smoke in the food (not to mention all the other additives in commercial smoked foods). When your digestive system is more robust, you can try some natural smoked fish and meat; your gut will soon tell you if it is ready for those foods. Make sure that there are no sugar or chemical additives in the food; if you smoke your own just use salt, honey, herbs and other natural substances.

When getting around to introducing buckwheat, quinoa and millet are all of these supposed to be fermented, or just the buckwheat?

Please, read the chapter *Coming off the GAPS diet*, p.155 in the new edition of my book. The recipe section provides a recipe for fermenting grains (p.195). I recommend that all grains get fermented, not just buckwheat.

Are coconut sugar crystals allowed on the full gaps diet and can they replace honey in baking?

No. It is a processed product, though it started as something natural.

Is raw coconut sap vinegar OK on GAPS?

Yes!

Can you tell me if nettle tea is allowed on the GAPS diet? I see that nettle is not on SCD, but I don't know about the tea. Nettle tea is so full of nutrients and minerals; it would be a shame to give it up nutrient-wise.

Yes, nettle tea is allowed. Nettles are very nutritious. I have a recipe of nettle soup in my book, and I recommend using fresh nettle leaves in juicing. Do not use nettles in pregnancy because it can initiate contractions. For this reason nettle infusion has been traditionally used in the third stage of childbirth, when the baby is out, but placenta is still in and needs some encouragement to come out.

Is mead in small amounts GAPS allowed?

Yes, as long as it is made with honey and not with sugar (as sugar is often not completely removed by fermentation).

I haven't seen Foie Gras mentioned anywhere. Any reason this wouldn't be a good GAPS food?

It is a very nourishing food and can be included into the GAPS Diet.

Are these foods GAPS allowed: grasshoppers and other insects, flax meal, Lakanto (body ecology sugar alternative), jicama and pork skin.

Insects including grasshoppers are very nutritious and are consumed by some cultures, they are allowed on GAPS. Pork skin is wonderful and should be used regularly too in making soups, brawn and meat jelly. Flax meal is very fibrous, you can use it when your digestive system is ready for it. Jicama is something new, I am not familiar with this vegetable; so I suggest not to use it until you have done the Intro diet and have been on the Full GAPS Diet for a while. When your digestion is good, try it and see if it agrees with you. I have covered stevia (Lakanto) in other questions, I do not generally recommend it, apart from the fresh herb.

Are the following allowed: ginseng, kava, valerian root, Irish moss tea, plant fibre in supplements?

Yes, herbs are generally allowed as a tea or an extract. When the diarrhoea has cleared, you can start consuming them raw and dried, as by then your gut should be able to handle fibre (herbs are usually fibrous).

Is soured milk GAPS legal? Tequila?

Only homemade fermented milk products are allowed. Tequila is a distilled product like vodka, and if nothing else has been added, it should be OK occasionally and in small amounts.

Are the following GAPS foods legal: adzuki beans, coconut aminos, hemp seeds?

Adzuki beans are not allowed, as more than 60% of them are complex carbohydrates. Coconut aminos is a supplement; from what I can see on the manufacturer's information it should be OK. Hemp seed is very fibrous and low in useful nutrition, apart from the oil. So, if you want to try hemp seeds I would only try them when all digestive symptoms are completely gone.

Is liquorice root tea GAPS legal?

Yes, liquorice tea is allowed.

Can sweet potatoes be consumed fermented, for instance in the African beverage mentioned in Nourishing Traditions, or perhaps some other form? We're not certain whether the fermentation would beneficially change the problematic starches. If not at first, would this possibly be an advanced food (fermented organic sweet potatoes)?

While on the GAPS diet sweet potato is not allowed. And there is no real need for it as we can have butternut squash, which has a similar taste and texture. I am not aware of any research into how much starch is left in fermented sweet potato recipes. So, it is better to keep on the safe side until the person is able to tolerate fermented grains and new potatoes. When the programme has been completed, you can gradually introduce all sorts of wholesome foods, including sweet potato, fermented or not.

Are certain legumes, prohibited on the GAPS diet, allowed if they are sprouted? Specifically: sprouted garbanzo, adzuki, mung and snow pea. Also if they are, would they have to be cooked to introduce these sprouts?

Legumes are generally hard to digest, so I do not recommend rushing with their introduction. When your digestion is much better and you have been on the Full GAPS Diet for a while, try to have a tiny amount of sprouted legumes of your choice and see how your body reacts to them. The longer they are sprouted, the less starch will be left in them, so you can try them raw or cooked to your liking. Raw will have active enzymes to help you to digest them, while cooked they are gentler on your gut lining. But first make sure that your digestive system is ready for them.

Are shirataki noodles (from konjac root) ok on GAPS and if so, what stage would they be allowed on?

I have no experience with shirataki. They contain complex carbohydrates, so I would not try them until your digestive symptoms are gone. When you tried them once and there are no reactions, then perhaps you can introduce them.

Is D-Ribose GAPS legal?

Yes, it is a monosaccharide and is allowed.

Is plain carbonated water (seltzer) allowed on GAPS?

Yes!

Chicken bones that have been simmered for 24 hours are very soft and can be eaten, and it's easier to eat them than to try to get the marrow out of them. Is there any harm to a GAPS patient to eating the bones as well as the marrow if they have been cooked for the 24 hours?

Yes, you can eat soft bones, they will do you a lot of good.

Why is blue cheese (of all kinds) legal on the diet when it may contain gluten?

Please, see the previous question. Cheese is introduced in the diet much later, and blue cheese is not the first on the list. By then a lot of healing happened in the gut lining, and the person can digest small amounts of gluten, as well as many other proteins. The beauty of GAPS Programme is that it heals the gut, so you do not have to avoid any real food for the rest of your life, including gluten-containing foods. People, who used to be diagnosed as celiac, after following the diet for a few years, can eat ordinary bread and pasta and any other gluten-containing foods.

Is it OK to eat techina (sesame butter), nori, and miso fermented from chickpeas?

With all of these foods, go through the programme first. When all your digestive problems are gone, then try a little and see if you are ready for them.

Are fenugreek seeds (for a tea) allowed on the diet? Wheat grass?

Tea is allowed. Wheat grass juice is allowed, but not the grass itself. Make sure that your digestive system is ready for these foods.

You say that heart, liver and tongue are healthy and healing meats to eat. Is there any reason you do not include kidneys in this recommendation?

Yes, kidneys are very good to eat as well.

What cuts of the animals are gelatinous meats? Are ribs considered a gelatinous meat? Is ground meat usually made from gelatinous meat?

You will find gelatinous meats around joints and bones: the ligaments and joint capsules of the animal. Ribs have some gelatinous meat, as well as some muscle meat, that is why they are so tasty. Ground meat is not necessarily rich in gelatinous meats; it depends on what has been ground.

Why are some polysaccharides, like bananas OK on GAPS, but not others like astragalus?

Astragalus is an herb from a legume family, it contains complex carbohydrates and in the initial stages of the GAPS diet is better avoided. Later on in the programme, when your digestive problems are largely gone you can try this herb and see if you can tolerate it. The same with bananas and other fruit, they are introduced a bit later in the programme, as in many people their digestive systems are not ready.

Is fennel allowed?

Yes.

What are your thoughts about using an old-fashioned pressure cooker to expedite preparation of meat stocks?

I don't recommend pressure cooker, as it destroys food to a degree. It is better to cook food slowly on lower heat.

Is there a GAPS friendly electrolyte beverage we could make?

Any fermented beverage with natural salt added is suitable: kvass, vegetable medley, etc. Some people drink a solution of a teaspoon of natural salt in a glass of water, and find it helpful for their health. Meat stock and bone broth have salt added and are rich in minerals and can be considered to be an electrolyte solution.

Can you please tell me if unfermented coconut water (such as those in the tetra packs – Vita Coco, One, etc.) is legal on the GAPS diet?

On all commercial products please read the ingredients lists on the labels. If there are no illegal ingredients, then it should be safe. Even then try a small amount first and see what happens. Everybody is different; you may be not ready for this particular product, while another member of your family is.

Is wheat grass or barley grass powder (with no additives) legal to use? Ashwagandha?

Yes, grasses and herbs are allowed. Ashwagandha is used in Aurveda for treating many different health problems. It belongs to the nightshade family of plants, so if you are sensitive to this group of foods then you may not be able to tolerate it.

Is refined coconut oil harmful? Does it change coconut oil in a negative way if you heat it, like other vegetable oils?

Coconut oil is quite stable and can be used for normal cooking at home. Industrially processed coconut oil however is questionable as the industry uses very powerful methods of processing, which can damage the oil.

In the book you allow eating grilled meat on the diet but not barbecued meat. Knowing that there could be a difference between what this means in the UK versus the US, can you please clarify this for us?

When the fire gets in direct contact with food it burns it and turns its outer layers into toxic chemicals. In order to cook food without causing this we need a heat source without direct fire. Grilling is done with the heat source above the food; there is no contact between the food and the fire. Barbecue has the heat source under the food, so the fire from burning gas comes in direct contact with the meat. As a result the barbecued meat burns on the outside. The exception are the old Mediterranean grills where they burn

wood for a long time to create glowing ambers (there is no fire anymore), then the meat is placed above this heat source on a grill. This does not apply to the modern barbecues which use wood or charcoal, but then a very toxic chemical is pored on top of it to light it up.

Is non-virgin olive oil OK if you don't heat it? Or has it already been heated in processing?

The most important requirement for olive oil is that it is cold-pressed, as heating damages its delicate micro-nutrients (antioxidants, phenols and other detoxifying substances). Virgin or not virgin is not so important.

I read that the molecular signature of coffee is very similar to the molecular signature of gluten and if a person is intolerant to gluten they will also react to coffee (among other foods). Do you feel that this is true and should coffee enemas also be avoided?

Coffee naturally contains no gluten. But the factories which process coffee may handle flour and other gluten-containing foods, so cross-contamination can happen. We are talking about pure coffee of course and not coffee drinks, which may have many other ingredients in them.

So, concerning gluten, first it is important to distinguish between intolerance and real allergy, use the Sensitivity Test for this. Real allergy to gluten with an anaphylactic component is a serious matter and you have to avoid gluten in all foods which may contain even traces of it. Intolerance is very different: it is due to damaged gut wall and the treatment has to focus on healing and sealing that wall, rather than avoiding gluten. So, if you don't have a real allergy to gluten, don't worry about traces of it in other foods, including coffee.

I was wondering if you could share your thoughts on whey protein powders in general and in particular with regards to the GAPS Diet.

I generally prefer to get our nutrition from food rather than from pills or powders. You can make delicious drinks with homemade whey; you will know that it is fresh and alive with probiotic bacteria and has not been processed in any way.

We grow stevia. Is stevia that is fresh from the plant or dried allowed on the diet? Also, I plan to do canning from my garden - will this be okay on the diet?

A bit of fresh stevia herb is OK, as any edible herbs. But I don't recommend processed stevia used as a sweetener. We simply don't know enough about it yet. Doing your own preserves at home is great, just use allowed ingredients.

Why is Gruyere cheese SCD compliant but illegal for GAPS?

Many brands of cheese have lactose-containing substances added to it after fermentation. If you found a natural cheese which has been made without anything added after fermentation (you have spoken to the manufacturer and trust them) try it regardless of its name or brand.

Is Maca allowed on the GAPS diet? Can it be beneficial in your opinion?

No! Maca root has high levels of complex carbohydrates and has to be avoided. Later on in the diet, when you digestive symptoms are gone, try a little and see if you can tolerate it.

There is a lot of talk right now about the healing powers of camel milk in autistic children with food allergies/intolerances. Many of us in the GAPS community are wondering if you think it would be legal for our children to try to have some fluid camel milk. Supposedly it doesn't have the casein protein that other milks contain; I believe it might be lactose free, anti-fungal, probiotic, etc. Would it be best to ferment it?

About a decade ago there was a similar interest in deer milk. Milk from animals other than the cow have not been commercialized to the same degree. That is why they are more natural and bring more health benefits. Most cow milk available in the shops comes from special artificial breeds of cow developed in laboratories; these cows produce almost three times more milk than a natural cow is able to produce. The milk from these commercial breeds of cow is not natural; it is quite different and has been linked to most degenerative health problems which plague the Western population today. Goats, sheep, camel and deer have not been commercialized, so the milk we get from them is exactly the milk Mother Nature has designed, as long as these animals eat the food that Mother Nature has designed them to eat. If these animals get commercialized and fed on artificial feeds, the quality of their milk will deteriorate.

The best milk is from organic pastured animals and this milk has to be raw. I will explain why. Milk of any animal (including humans) is the female's white blood with red blood cells removed; this milk is alive with alive and active blood and immune cells, enzymes, vitamins, etc. Pasteurization kills the milk and makes it more difficult to digest. So for our GAPS patients it is best to get raw organic milk. Many people around the world have no access to raw milk. In that case just buy fresh organic full-cream milk and ferment it at home; the fermentation process will put a lot of life back into the milk.

All milk contains lactose and that is the biggest problem for GAPS children and adults. When we ferment milk we remove lactose and pre-digest casein and other proteins in the milk. As a result it becomes much easier for our digestive systems to handle. So, all milk (from natural breeds of cow, goat, deer, sheep and camel) has to be fermented for the GAPS patients. When the Dairy Introduction Structure (in the GAPS book) has been completed many patients can start drinking fresh raw milk when their digestive systems are ready for it (never give them pasteurized milk!).

There is another issue with milk - that is what kind of protein casein it contains. Depending on what kind of casein it contains there are two varieties of milk called A1 and A2. Commercial breeds of cow produce A1 milk, which has been linked with disease. Natural breeds of cow (Guernsey, Jersey, African, Asian and French cows) produce A2 milk and so do camels and goats. Cow milk in supermarkets comes largely from commercial breeds of cow and is A1 milk.

Do you see a problem with eating lots of animal fats from conventionally raised meats in the context of the GAPS diet? I live in Germany and find it difficult and very expensive to find pastured meats. The fat composition in conventional meats seem to be very different to the grass-fed meats (regarding the content of omega-3 and omega-6 fats), and also I have a problem with the fact that conventionally raised animals are given routine antibiotics.

Of course, grass fed and organic meat and fat are best. But many people cannot find them or afford them. I have hundreds of patients who implemented GAPS Protocol using conventional meats and fats, with very good results. We have to remember that animals have very efficient detoxification systems in the body, which will neutralize many toxins. So eating non-organic meat is safer than eating non-organic vegetables or fruit. So do your best under the circumstances you have and don't worry about it.

I've read that really raw honey is unfiltered with pollen intact, murky, and not clear--but pollen is not allowed on the diet. Is it ok to have pollen in the honey? It seems the only option in order to get truly raw honey.

Pollen is allowed on the GAPS Diet, I even recommend it.

I see that astragalus is on the foods to avoid list. It contains polysaccharides. I thought polysaccharides were supposed to be good for the immune system so I have been taking some combination capsules or medicinal mushrooms. I am guessing all the medicinal mushrooms have polysaccharides in them. Is that true? Do the advantages of these mushrooms outweigh the problem of the polysaccharides? Is there some tolerable amount of these mushrooms that would work?

Polysaccharides are not all the same, and most foods contain them. Mushrooms are allowed on the diet. Always listen to your body, it will let you know if something is working for you or not. Some foods on the not-allowed list (such as seaweed, aloe Vera and astragalus) can be introduced later on in the diet, when your digestive system gets healthier and more able to handle polysaccharides. Please see some other questions on this subject in Diet/food section in FAQs.

CYSTITIS

Please comment on interstitial cystitis and how GAPS can help?

Please read the article “Food Allergy” in the Resources section. It will explain this issue to you in detail.

DETOXING, DIE-OFF, & OTHER SYMPTOMS

Since I've been on the GAPS Intro Diet for one-and-a-half weeks my mouth has been having a sweet taste in it and excessive saliva is always forming. What is the reason behind this?

Sweet taste in the mouth is due to toxins and microbial activity. Amongst the toxins there may be those produced by the pathogenic microbes in your mouth and throat, as well as toxins being removed by your body through saliva. People with diabetes often have sweet taste in the mouth, so check if you are diabetic.

In your case, as you started GAPS Programme recently, this is likely to be die-off: toxins are being removed from the body through saliva (hence there is an overproduction of saliva). To assist your body in removing these toxins brush your teeth with olive oil and bicarbonate of soda (dip the brush into olive oil first and then into the soda, brush as usual) instead of any toothpaste, and do the *oil pull* as often as you can. Populate your mouth with beneficial bacteria: after every meal rinse your mouth with homemade yoghurt or kefir, or open 2 capsules of a good quality probiotic on your tongue; the probiotic bacteria will clean out the toxins in your mouth between meals and remove pathogens.

As the die-off passes and your mouth gets populated by the beneficial flora the sweet taste in your mouth should disappear.

My C-reactive protein levels have been increasing since being on the GAPS Diet and my GAPS Practitioner is unable to explain this. Do you think GAPS which uses a lot of meat could be raising my homocysteine levels and thus causing inflammation reflected in the C-reactive protein levels?

C-reactive protein shows that your body is dealing with something, using a non-specific inflammatory attack. It can be old toxins stored somewhere, parasites which are always attracted to your toxin stores or some old damaged tissues. So, it is good that your C-reactive protein is high, it means that your body has gained enough strength to start on its ‘to-do pile’, which it might have had for many years sitting there waiting for its turn. I would not worry about it and continue with the programme. When your body cleared old toxins the C-reactive protein will go down naturally. Trust the process and trust your body, it knows what it is doing.

What will help a child detox after swimming when showers after swimming are not allowed? Will chlorine and MSM help? Can you recommend anything else?

I do not recommend swimming in chlorinated swimming pools at all. It is a very toxic experience regardless of showering or not showering afterwards. I recommend swimming in natural waters of lakes, rivers and sea. Alternatively, look for a swimming pool which is sterilized by using ozone or some other natural alternative.

Can you tell me if detoxifying on GAPS can use up your vitamin D reserves faster and so exacerbate any vitamin D deficiency?

Detoxification requires a lot of nutrients: enzymes, vitamins (including vitamin D), minerals, amino acids, cholesterol, fatty acids, etc. Human body is clever; it will only detoxify to the level for which it has resources available. If the body has plenty of resources it will detoxify fast and efficiently. If resources are low then your detoxification will slow down or stop altogether and the body will use those valuable nutrients for other functions. Vitamin D is required for a myriad of various functions in the body, and the body will prioritize which function should get it first; detoxification may not be high on the priority list.

GAPS Nutritional Protocol provides large amounts of nutrients for detoxification including cholesterol and vitamin D; far from draining your vitamin D stores it will keep replenishing them. However, what we need to understand is that the main source of vitamin D for us is sunlight; food provides much less of this valuable vitamin. When the sun shines on our skin cholesterol in the skin is converted into vitamin D, and the best detoxifying vitamin D it is too. Every time we sunbath vitamin D and cholesterol in our skin combine with sulphur forming *vitamin D sulphate* and *cholesterol sulphate*. These two substances are some of the most powerful detoxifiers / cleansers we know of. Normally cholesterol and vitamin D are fat-soluble; they cannot travel in the blood (which is water-based) without special packaging. Sulphation makes them water-soluble, which allows them to travel in the blood without having to be packaged and reach everywhere to cleanse. So, sunbathing is a powerful detoxifying procedure and is a very important part of the GAPS Nutritional Protocol.

What are "die-off" symptoms?

As you introduce a probiotic into the digestive system, the pathogenic bacteria, viruses and fungi there will be dying, which releases more toxins. This increase in toxicity may produce a so-called "die-off" reaction, when you may feel more tired or generally "off color". It is a temporary reaction and usually lasts from a few days to a few weeks in different people. To make this reaction as mild as possible, build the dose of Bio-Kult slowly. The quickest you can go is adding 1 capsule to the daily dose every 4-7 days. You can build the dose much slower, depending on your reaction. If you get a severe reaction, cut the daily dose down to the previous level and settle on it. Then carry on increasing the dose.

How and why does increasing animal fat consumption help people tolerate high sulphur foods?

Sulphur is an essential mineral in the human body; it is particularly important for detoxification. In people with a lot of toxicity stored in their organs sulphur-rich foods can initiate cleansing or detoxification. This process can bring unpleasant symptoms, called detox symptoms, such as headaches, mood swings, drop in energy, unstable blood sugar level and worsening of any individual symptoms a person may have. This is particularly true for people who have accumulated toxic metals in their bodies. The key is not to be afraid of sulphur-containing foods but to keep your individual detox at a manageable level.

Detox causes a lot of damage in the body (on top of the damage caused by the toxins themselves). The damaged tissues have to be repaired and your body will be doing that in parallel with cleansing. Saturated fats and cholesterol are major repairing and building substances for your cells and organs; no healing can happen without their involvement. The main organ supplying cholesterol and fats for repair is your liver; it has to work very hard during detox manufacturing healing cholesterol and saturated fats. If you are eating good quality fresh animal foods (fresh meats, fish, eggs and dairy) you will help your body heal and re-build.

Is there a difference between traditional sauna and infra sauna concerning efficiency? Which one is similar to the spontaneous body sweating?

I don't recommend infrared sauna, as it is something new and not natural; we don't have enough knowledge about its effects on the body. I trust traditional sauna which uses heat and makes you sweat

Is it beneficial or necessary to use something like chlorella, clay, etc regularly to help the body eliminate the toxins released by the juicing? I understand we are trying to kick start our own detoxification systems, but will the toxins released into the gut be reabsorbed if there is nothing there to bind them and 'sweep' them out?

Yes, it is a good idea to use clay, diatomaceous earth or chlorella. If your digestive symptoms are not too bad then you can start these products from the beginning. However, if you have severe digestive problems (such as in ulcerative colitis or Crohn's disease) and are starting from the Intro diet I recommend to wait with these products until your digestion gets better. Later on you will be able to introduce them. Some people who have been on the Intro for a while and are not getting well as quickly as they expected, I suggest to try the diatomaceous earth (introduce gradually!); the lack of progress may be due to parasites in the gut.

Why do my symptoms seem to be getting worse on the GAPS diet and Bio-Kult?

Die-off releases more toxins than usual. Your symptoms may get worse initially but this is a temporary reaction and will pass. Build up the Bio-Kult very slowly to decrease this response. If the Full GAPS Diet is causing your symptoms to get worse with no gradual improvements, it is recommended to go back and follow the Introduction Diet.

If a food causes a minor upset, such as gas, phlegm, slight change in stool, etc., will healing be prevented if this food is continued to be consumed?

These reactions tell you that your digestive system is not ready for that food to be introduced. Remove it for a couple of weeks, then try again as a part of your meal; not on its own, and not on an empty stomach. Please read *Food Allergy* (Available in the Resources section) to learn more.

I have been unable to determine whether I can tolerate coconut oil. It seems that I can because I don't have any reaction in my mouth or body. However, when I use coconut oil as a personal lubricant on my sexual areas, it creates a burning sensation. Does this mean that internally my body is not tolerating the oil as well?

Coconut oil has anti-fungal and anti-bacterial substances in it. We have a rich microbial flora in the groin and the oil will attack it; the resulting die-off can produce local inflammation. Use your homemade sour cream or kefir as a lubricant in your groin instead; they will populate your groin with beneficial flora as well as nourish and sooth.

I have heavy post-nasal mucous. It is worse on GAPS. I'm thinking it is related to the amount of gas in my intestines. Is this normal for someone following the diet or do I need to make adjustment in my diet?

Your nasal passages are cleaning something out; that is why so much mucous is produced. GAPS improves the detoxification functions in the body, so they really get down to business. Just weather it out, it will pass. Keep blowing your nose; don't swallow the mucous as it is full of toxins. Make sure that you don't add toxins and man-made chemicals to your nasal passages by breathing contaminated air (particularly commercial air 'fresheners', perfumes, scented laundry detergents and cleaning chemicals). Gas in the intestines is a sign of yeast overgrowth. So, work on the GAPS Programme; staying on the 2nd stage of Intro will be the most helpful strategy for both gas in the intestines and the runny nose.

How can you tell the difference between die-off and food intolerance? For example, how do you know if flatulence is caused by the meal you just ate or from the meal prior to that one?

The die-off symptoms can be new symptoms or can be your usual symptoms getting worse, when you introduce new diet, probiotics or anti-parasitic, anti-fungal/anti-bacterial remedies. Food intolerance symptoms appear when you introduce new foods into your

diet. If you have been eating a particular food routinely, which you suspect as causing food intolerances, remove it for 3-4 weeks, then try to eat it again. Your body will let you know if you are intolerant to it. Production of gas takes time; it is the pathogens in the gut (usually fungi) that convert food into gas. So, it is your previous meals that produced the gas. Every meal sends a propulsion reflex down the digestive system, so that gas in the bowel may be released when you are eating your next meal.

Is die-off dangerous? What symptoms are warnings that you should slow down? Should the GAPS diet be done under the supervision of a healthcare professional?

It is always a good idea to work with a good healthcare professional. However, thousands of people around the world have implemented GAPS diet on their own with very good results. Die-off is very individual and depends on the severity of the condition. If we are dealing with a severe condition, then die-off can be very serious and should be controlled by slow introduction of foods and probiotics.

Is insomnia a common die-off response? Do you have any recommendations for overcoming insomnia?

Many toxins coming from the activity of unhealthy gut flora disrupt our neurotransmitters in the brain. Neurotransmitters are chemicals which brain cells use to communicate with each other, such as serotonin, adrenalin, dopamine, melatonin, endorphins, etc. – there are about a hundred neurotransmitters discovered so far. Die-off releases more toxins than usual and, if a person has a problem with neurotransmitter disruption already, then it will get worse. One of the functions of neurotransmitters is regulation of sleep. Serotonin, GABA and melatonin are the three neurotransmitters connected with sleep and relaxation in particular, and it is a good idea to boost their production with supplements, if insomnia is a problem. To boost serotonin production we need an amino acid 5HTP (5-hydroxytryptophan), for GABA we need taurine and glutamine. These amino acids need co-factors to be converted into neurotransmitters: niacin, vitamin B6, folic acid, biotin, zinc, magnesium, vitamin B1, vitamin B12 and pantothenic acid. There are supplements on the market, which contain all these ingredients with about 100mg of 5HTP, 500mg of glutamine and 500mg of taurine. Always start with a low dose and build gradually; the optimal dose is very individual. In many people just boosting production of serotonin and GABA is enough to remedy insomnia. If it is not enough, then try to add melatonin. Melatonin is produced in the brain at night, however in order to produce it in the dark we need a good dose of light during the day. Spending some time in bright sunlight every day will boost your melatonin production (no sunglasses, as the light needs to reach the brain through the eyes). Supplements of melatonin are available ready made; start from a low dose at bedtime (1-3 mg) and, if it is not making any difference, slowly increase the dose.

Which symptoms should you push through and which symptoms are a sign that you should remove the food?

If the symptoms are due to die-off, initiated by the introduction of probiotics, the diet or natural anti-parasitic remedies then continue gradual increase of the remedies and gradual progression through the diet, keeping the die-off at a manageable level. If new symptoms appear after introducing new food, then you are not ready for that food (your gut lining is not ready). Remove the food, work on healing your gut lining with the diet and probiotics for a few weeks, and then try the new food again.

Do you recommend or support the use of activated charcoal, clay or vitamin C for detox use during die-off?

Yes, many people try these remedies and find that they help.

Will toxins and lead and mercury toxicity cause tight muscles? If so, will certain muscles be more prone to tightness, i.e. muscles that have been problematic during die-off?

Yes, toxins can cause muscle pain, spasms and tightness. Any muscle can be affected, it is individual. If a particular group of muscles was problematic during die-off, then it is likely that they will be targeted by toxicity.

Even the smallest amount of any probiotic food or supplement causes me severe bloating, fatigue and pain. How do I do the diet if I can't take probiotics? Are there any conditions where probiotic are not recommended?

People suffering from ME, chronic fatigue syndrome, fibromyalgia and some other debilitating conditions often have difficulties introducing probiotics. The reason for that is the die-off effect: it is so severe in this group of patients that they find it very difficult to cope with. Just start from a tiny amount and go up very slowly. I have patients who start from 1/18th of a capsule of the Bio-Kult (or as much powder as would fit on the end of a sharp knife), and it takes them months to get up to one capsule per day. The same with fermented foods, start from a tiny amount per 5-7 days; as your body gets used to that amount, start taking it a bit more frequently. When you can take that tiny amount every day, start increasing the dose. Proceed in this very slow manner. It is important for you to introduce probiotics in the form of food or supplement. You just have to go slowly.

If symptoms from introducing a food are mainly non-digestive, such as increased salivating and brain fog, might this be a reaction to work through? Or does it still signal a faulty immune system and thus one should back off that food?

These symptoms look like food allergy or intolerance. Always do the sensitivity test with any suspicious food before introducing it. If the test is negative, then just introduce it at a pace that is manageable for you: start with tiny amounts as a part of the whole meal, not on its own. If, even in tiny amounts the reaction is too much, then stop, give yourself a few months to heal and then try again. As the gut gets healthier, you will be more able to

digest that food properly rather than absorbing it partially digested.

In addition to juicing, elderberry and plants (all mentioned in the book), are there other detoxing methods recommended for GAPS patients? If one wanted to undergo an intense detox, is there a recommended procedure? Do you recommend using detox protocols in addition to juicing to remove problem heavy metals?

I do not recommend any other detox procedures for the first two years of the programme, as the GAPS Nutritional Protocol will restore your own detoxification system in the body, so it starts functioning again and removing toxins naturally. However, in some cases the toxic load can be too high and still producing symptoms after two years; in these cases I recommend natural chelating substances such as HumetR and HMD™ (Heavy Metal Detox). Seaweed and probiotics are also strong chelators of toxins. Many people find fasting very helpful. Fasting is best done in a dedicated clinic under supervision, and people who do best with it are those who are fairly well nourished (not underweight). There are many other powerful detox protocols available around the world and it is best to do them in dedicated clinics. I know quite a few people who have attempted various protocols with different results, ranging from none to spectacular. The outcome depends very much on your own detoxification system in the body working well, and that is what GAPS programme can do for you – it will restore your detox system.

Do you recommend the removal of silver fillings if there is a high level of mercury or other heavy metals?

Absolutely! However, it is very important to work with a holistic dentist, as conventional dentists are not trained in safe removal of amalgam fillings. Metals in the mouth create electric currents and different fillings acquire a positive or a negative charge. These electric charges need to be measured and fillings need to be removed in a certain order, starting from the largest negatively charged one. After the first one is removed, the currents in the mouth need to be measured again, as the charges will change. Please, read an excellent book by Dr. Hal A Huggins *It's all in your head*; it will explain to you all the important considerations in safe removal of amalgam fillings.

What is the difference between sauna therapy versus Epsom salt baths for detoxifying? How do they work? Would the Epsom salt remove toxins at a slower or faster pace? Which one is less likely to cause a healing reaction? What is your opinion on incorporating Epsom salt at the start of a detox programme? Any recommendations on duration and frequency?

Sauna removes toxins through sweat. On top of that it raises the body temperature, which has a very healing and detoxifying effect on the whole body. People knew this for centuries, that is why various cultures around the world have used heat as a method of healing: sauna in Scandinavia, banja in Russia, Turkish baths, Roman baths, etc. A weekly visit to sauna or banja is still a traditional practice in many countries. Russian

people usually allocate the whole of Saturday for their banja; this is a sort of weekly 'MOT' for your body.

Epsom salt baths are a 'copy' of natural sulphur baths, which are very popular in Europe and Asia. There are natural spas around the world where hot water, rich in sulphur, comes out of the ground; through the centuries people noticed that bathing in these waters brings a relief to many illnesses. Now there is a lot of research conducted showing that indeed sulphur spas have many healing effects on the body. As many of us have no routine access to such spas, Epsom salt bath is as close as we can get to this experience. When you bath in Epsom salt solution your body absorbs sulphur and magnesium through skin, while toxins are being pulled out.

I recommend both saunas and baths. They work differently, but both will help your body to detoxify and to heal. It is important to introduce both gradually and slowly, making sure that your body can tolerate the level of detoxification. So, start from just a few minutes in the sauna, and gradually increase the time and temperature. With baths: start from a lower temperature and a less concentrated solution, and less time spent in the bath. As your body gets used to it, you can gradually make the bath water hotter, the concentration of Epsom salt higher and the time spent in the bath longer.

Apart from adding Epsom salt to your baths, you can use unrefined sea salt, seaweed powder, medicinal clay, cider vinegar and bicarbonate of soda. I recommend to my patients to alternate these various baths to get the maximum effect. It is best to have baths and sauna at bedtime; because after such treatment your body will need to rest for a few hours at least.

I frequently notice heart palpitations, especially when feeling weak, and I suspect it has to do with low blood pressure. What would be recommended?

Palpitations often happen due to die-off. Toxins released by die-off can drop your blood sugar level, or drop your blood pressure, or cause other problems leading to palpitations. Like with any die-off symptoms slow down with the dose increase of probiotics and fermented foods, and perhaps go back to the previous stage of the GAPS Introduction Diet. If you are on the Full GAPS Diet consider doing the Intro Diet.

I have developed mouth ulcers in the first stage of the Intro Diet. Would these be related to the diet and 'die-off'? What causes mouth ulcers and how can they be treated?

Your body is unloading toxins through the mucous membranes. The abnormal flora in your mouth feeds on those toxins and causes the ulcers. Brush your teeth twice a day with olive oil only; on days when you want your teeth to be particularly white add some bicarbonate of soda (dip the brush into olive oil first and then into the soda, brush as usual). Do not use any commercial toothpaste, even natural ones.

Every day do the *Oil Pull* as often as you remember: take a mouthful of any cold-pressed oil and hold it there for 15 minutes, then spit it out. After every meal rinse your mouth

with homemade yoghurt or kefir, or open 2 capsules of a good probiotic on your tongue; the probiotic bacteria will clean out the toxins in your mouth between meals and remove pathogens.

Is noticeable die-off necessary for continued healing? I had die-off when I started the diet but it has now been a year since I noticed die-off symptoms.

Die-off is very individual. Some people, children in particular, may have one period at the beginning of the program and never have it again. Some people go through ‘waves’ of die-off with ‘good’ periods in between. The fact that you do not have die-off symptoms now does not mean that you are not healing.

What do you recommend to treat oesophageal irritation while following the GAPS Diet?

Oesophagus has its own flora; overgrowth of pathogens on its walls will cause chronic inflammation and irritation. Make sure to populate that area with beneficial flora: finish every meal with a few mouthfuls of homemade kefir/whey/yoghurt or a few capsules of probiotic opened on your tongue. Everything you eat needs to be soothing and healing on the oesophagus, so follow the Introduction Diet – stages 1 and 2 – until the irritation is much reduced; start and finish your day with warm meat stock with some kefir added to it, and drink it between meals as well.

Do you think Esophago-pharyngeal Reflux (EPR) might be helped by GAPS? I understand EPR is the regurgitation of oesophageal contents back into the larynx and pharynx usually resulting from a disorder of oesophageal motility. Symptoms include post-nasal drip, sensation of lump in the throat, chest pain, heartburn and sometimes difficulty in getting really solid food down. These symptoms appeared to be triggered by thyrotoxicosis (said to be caused by viral thyroiditis?)

EPR is a part of reflux/GERD, just another label for a subgroup of symptoms. Oesophagus is a tube which passes food from the mouth to the stomach; it has no ‘content’ of its own. So, when food regurgitates into the throat (pharynx and larynx), it came from the stomach originally, not from oesophagus. None of it is normal: once we swallow the food, it is supposed to land in the stomach to be digested and it is not supposed to go back to the oesophagus or even further – to the throat. All of it is caused by unhealthy population of pathogenic microbes in the stomach and oesophagus of the person. Enlarged thyroid gland due to infection, tumor or something else can make swallowing more difficult. But the cause of regurgitation of food is usually gastritis.

I now understand that bloating can be related to heavy metal toxicity, e.g. amalgam fillings which I have. However, I do not understand why my bloating has got worse since being on GAPS, GAPS is supposed to help with detox. Surely there would be less

mercury available to feed the yeast/fungus? Also what would you recommend to those who for some reason cannot remove the fillings (pregnancy or lactation)? Would it be helpful to take chlorella to bind the mercury? Would this reduce the bloating?

Excessive gas production in the gut is due to an overgrowth of yeast/candida. Yeast is employed by the body to absorb and neutralize mercury and other toxic metals and chemicals. As long as you have mercury coming into your system you will never get rid of yeast. And we need to be grateful for that, because yeast is protecting you from the damaging effects of mercury. So, it is important to remove amalgam fillings and other sources of toxic metals.

As you started GAPS, your detoxification system has activated and started removing mercury out of your amalgams and other storage places, which can lead to more yeast overgrowth. If you are eating nuts and fruit they will make the whole situation worse. Try to go back to the Introduction Diet and stay on the 2nd stage for as long as it takes to get rid of bloating. This measure removes all foods that feed yeast, and will help the body to remove both mercury and yeast quicker. Taking charcoal tablets will help with bloating.

It is not a good idea to be removing amalgam fillings during pregnancy and breastfeeding. Stick to the diet strictly, take probiotics and fermented foods. Blue green algae and chlorella can help; you can also try natural seaweed and HumetR supplement. Fat content of your meals should be very high (fresh animal fats) – this will boost your detoxification system and immunity and allow you and your baby deal with toxicity better.

My family has been on the GAPS Diet for 2.5 years. While we have seen very positive changes, I still feel that we are dealing with leaky gut. What is the key to 'healing and sealing' the gut? Broth? Fats? After this much time on the diet, what foods and in what amounts should we focus on to really help to seal the gut? How much fat should children be consuming?

The entire list of foods allowed on GAPS does not apply to everyone. Every person is unique and the healing process in the gut is very individual. It is possible that some foods that your child is eating his gut is not ready for, and these foods are not allowing the gut to heal completely. It may be nuts (which is often the case) and fruit. So, it is a good idea to go through the Intro Diet again and try to identify what foods may be the culprit for your family members. These culprit foods need to be avoided for a year or so to allow the gut to heal. Then try them again, at that point the gut may be ready for them and there will be no trouble anymore. Many people in your situation find that staying on the 2nd stage of the Intro Diet for a few months fixes the problem.

Regarding how much of broth, fats or any other foods to consume, it is very individual and every person should be guided by their taste. Please, read my article *ONE MAN'S MEAT IS ANOTHER MAN'S POISON*.

DIABETES, INSULIN & LEPTIN

Do any modifications need to be made to the GAPS diet for patients with insulin resistance?

GAPS diet is very beneficial for people with type-two diabetes, obesity, and other forms of insulin resistance, as it cuts out complex carbohydrates. People with this problem need to limit their carbohydrate consumption; so don't go heavy on honey or SCD desserts. It is essential to have plenty of animal fats for these people in order to keep their blood sugar at the right level. In order to do that I recommend having a few tablespoons of coconut oil, raw butter or homemade sour cream every half an hour throughout the day. Freshly pressed juices have many sugars in them: in order to balance these sugars with fat and protein, blend into the juice 1-2 raw eggs and 1-2 tablespoons of homemade sour cream or raw butter or coconut oil (per person). Once your juice is mixed with eggs and fat, you do not need to worry about how sweet the juice may be: you can juice carrots, beetroot, apples and pineapples. For people with sugar cravings and other difficulties in blood sugar control, it is a good idea to mix raw butter or coconut oil with a little raw honey to taste; make the mixture in advance and keep eating it throughout the day. This mixture will help you to come through the initial stages of treatment. When sugar cravings are gone, you will be able to maintain your blood sugar normal between meals without having to eat anything.

Does GAPS help with leptin resistance and if so, how?

Leptin resistance is similar to insulin resistance and is usually found in overweight people. GAPS diet is a low carbohydrate diet; it helps with weight loss and insulin resistance, so it should help with leptin resistance too.

Will the GAPS diet help cure and prevent diabetes?

There are two forms of diabetes: type one and type two. Type one is an auto immune disorder, where the body attacks and destroys the insulin-producing cells in the pancreas. All auto immunity is born in the gut. Following the GAPS Programme will heal the gut and re-structure the immune system. In my experience, as the patient progresses through the treatment, he or she is able to slowly reduce the dose of insulin and in many cases to stop the injections altogether. Type two diabetes is caused by the body becoming insulin resistant because of continuous consumption of processed carbohydrates. GAPS diet removes all processed carbohydrates, so the body can heal the damage and remove diabetes. Once better, as long as the person continues to stick to low-carbohydrate nourishing diet for the rest of his or her life, the diabetes should never return.

What do you think are optimal blood glucose values to promote pancreas regeneration in diabetes type one?

On an empty stomach around 4.4-6.1 mmol/L (in the USA 82-110mg/dL). After a meal around 7.8-7.9 mmol/L (in the USA around 140 mg/dL). Don't worry if the values are slightly different from these, just continue working on the diet. People with diabetes type one need to go through the Introduction Diet slowly and patiently. As your pancreas starts regenerating, it will start producing its own insulin, which will start bringing your blood sugar levels to normality. That is why, when doing the GAPS Nutritional Protocol, it is vital to test your blood sugar level **before** every insulin injection; you must adjust the dose of insulin according to the level of your blood sugar in order not to overdose. Every brand of injectable insulin has its own complicated structure of dose-adjustment worked out by the manufacturer. Your nurse will have all of this information about your insulin and will be able to provide you with written instructions on how to adjust the dose. Children often come down in the dose of insulin (to the point of not needing it anymore) quite quickly, in a matter of few weeks. An adult who suffered with diabetes for many years will take longer.

EMFs (ELECTROMAGNETIC FIELDS)

Is our gut flora sensitive to the electromagnetic fields in our environment? Is the influence of these fields good or bad? If the influence is bad, what can we do about it?

EMF (electromagnetic field) is a growing concern in the modern world, and many GAPS people are sensitive to it. Research shows that it is damaging to humans, animals and microbes. I have not seen any studies on gut flora specifically, but I would imagine that the EMF influence is not good. On the whole it is a good idea to avoid exposure to EMF by staying away from high-power electricity lines, mobile phone masts and other sources. Make sure that you don't live close to any powerful source of EMF, switch off your computers and TV screens when you are not using them, and do not become attached to your mobile phone too much. Babies and children can be very sensitive to EMF; I had families in my clinic where the baby would not sleep until all electrical devices in the house are unplugged from the sources of electricity.

Can a GAPS gut or the GAPS Program cause neuro symptoms of increasing sensitivity to light and sound to the point of having to keep the home very dark and quiet to cope, and viewing a computer screen (or watching TV) can only be tolerated for a short period each day? Any info on the cause or treatment of this symptom would be appreciated.

Yes, many GAPS people are sensitive to light and sound and touch and taste. In fact most sensory input is processed inappropriately by the intoxicated brain of a GAPS person, hence the unique symptoms of autism, ADHD, schizophrenia and other mental illness. Many people who have a physical manifestation of GAPS (such as an autoimmune disease, for example) and have not been diagnosed with any mental illness often suffer from these sensory issues.

Your eye, your ears, your taste buds and other sensory organs collect information from the environment; then this information is passed to the brain to be processed and that is how we perceive the world. But if your brain is clogged with toxicity (coming from the gut) it cannot process this sensory information properly. As a result you don't hear and see and taste and perceive the world normally, sound and light and touch can be perceived as painful or unpleasant, partial and fragmented.

Work on your gut, heal it and normalize your gut flora with the GAPS Nutritional Protocol. That will stop the flow of toxins from the gut to the brain, the brain will clean itself up and your normal sensory perception will return.

ENEMAS

Enemas with children/ did you say that kids should only have water in an enema? Can they have kefir in an enema? How about dehydration? Should they have salt and soda bicarbonate? I am also concerned about the psychological aspect of introducing an enema to my child. Please help.

Please read the chapter on enemas in my book and in FAQs. With babies I recommend to use enemas only for constipation and use only water. In children from around 2.5 - 3 years of age we can start adding kefir, whey, salt and bicarbonate of soda. The first enema with the child is crucial to make the child comfortable with the procedure. If the first enema went well, the child will be happy to have enemas regularly for years to come. I know hundreds of families who are doing enemas with their children. Children have no pre-conceived ideas about enemas, so there is no 'psychological aspect' for them. Pre-conceived ideas come from adults, and they should be careful not to pass their prejudices to the child.

Is it all right to have a water enema while one is in the middle of ulcerative colitis flare-up? As you know the symptoms are diarrhea mixed with blood and mucous, but at the same time there is always a feeling that colon is not completely clean. There is something like constipated diarrhea; will doing a gentle water enema be as helpful as an enema in a non-flare situation?

No, I do not recommend enemas during an ulcerative colitis flare-up, particularly if there is blood in the stool. Of course in this situation the bowel inside is not 'clean'; it is full of pathogenic flora and improperly digested remnants of food, so your desire to clean it out is quite natural. But the integrity of the gut wall may be compromised, which creates a risk of allowing infection into the system.

Is it safe to use prebiotic powder in enemas? Since it would bypass the stomach and small intestine, would it be a safe way to feed the good bacteria in the lower intestine

without suffering from SIBO (Small Intestinal Bacterial Overgrowth) bloating? How do we encourage good bacteroides to multiply?

Prebiotics (not to confuse with probiotics) feed equally the good and the bad microbes in the gut. If the person has predominantly good microbes in the gut, then prebiotics will feed them and allow them to proliferate, which will make the person healthier. If the person has abnormal gut flora with pathogens predominating, prebiotics will feed these pathogens and make the person worse. GAPS people have abnormal gut flora; that is why prebiotics are not recommended for them. Those who tried prebiotics in enemas usually find that they get a lot of gas production for a few days afterwards. GAPS Diet provides plenty of food for the microbes in the gut. Restoring the right gut flora balance is a very complex process, just keep feeding yourself and don't worry about the details: your body knows what it is doing.

Why do you have the patient lie on their right side when the sigmoid (the entrance to the colon) is on the left?

When the person lies on the right side, the water gets all away up the descending colon and into transverse colon. This way we get a deeper cleansing. Find a position comfortable for you. Some people find knee & elbow position the most comfortable.

Do you recommend taking coffee enemas for someone who is very sensitive to caffeine (getting nervous when drinking coffee)?

Coffee used as an enema has a very different effect on the body compared to drinking coffee. The only way to know how you will react to a coffee enema is to try it. Before putting the coffee in, I recommend to clean your bowel first with a water enema (add 1 teaspoon of natural salt and 1 teaspoon of bicarbonate of soda to 1 liter of water and use it). If you are sensitive to caffeine use diluted coffee to start with. Add 1/4 of a cup of homemade kefir or yogurt to the coffee (you can also add whey or sour cream), which will put probiotic bacteria directly into your bowel and balance the effects of coffee.

Can you describe a coffee enema procedure, please?

For adults I recommend using coffee enemas. If a water enema is used by an adult as a constipation relief, I recommend finishing it with the coffee. I do not recommend coffee enemas for children.

Coffee enemas have been used as a healing remedy for the last 100 years; they are particularly well known as part of the treatment of cancer with Gerson Protocol. Coffee enemas are considered to be one of the best ways of cleansing the liver and speeding up detoxification processes in the body. Many people report that coffee enema gives a good pain relief as well. The mechanism of its function is not clear, but it is thought that various substances in the coffee absorb through the rich capillary bed of the rectum into the portal veins, which lead directly to the liver.

In the Gerson Protocol people perform four coffee enemas every day. A GAPS person does not have to do that; I recommend doing a coffee enema whenever there is a need, which can be once a day, once in a few days or once in a while. Here is what my patients report after using coffee enemas: migraine headaches disappear; feel better, more clear-headed and more energetic; nausea goes away or greatly reduced; pain relief (anywhere in the body); better mood; acne clears up; other skin problems clear up; less reflux; better sleep; feel 'less toxic'. Once a person has experienced the coffee enema, they usually know when they need another one.

In order for the coffee enema to have a full effect one has to hold the coffee in the bowel for about 15 minutes. In the Gerson Protocol people do four coffee enemas per day, so their bowels are kept fairly empty all the time. For a person who does enemas occasionally, holding coffee in for 15 minutes can be very difficult or impossible because the bowel is full. That is why I recommend clearing the bowel out first with water enemas before getting the coffee in. Another reason is that in a GAPS person with faecal compaction or putrefaction in the bowel, trying to hold coffee in would stir up the toxins and allow them to absorb, which can give very unpleasant symptoms.

Coffee enema recipe

To prepare coffee for the enema bring to the boil 1 litre of water, add 3 heaped tablespoons of organic ground coffee, boil for 2 min, then reduce the heat to a minimum, cover with a tight lid and simmer for another 15 min. Cool down to body temperature and strain. There is a brand of coffee on the market used by the Gerson group specifically for enemas.

Coffee enema procedure

Before doing the coffee enema, it is a good idea to have a good cleansing enema with warm water. Use filtered or bottled water, bring it up to the boil and cool down to body temperature. I recommend dissolving some natural salt and bicarbonate of soda in the water (about ½ teaspoon of each per one litre of water). The salt will bring the mineral content of the water to a more natural balance for the human body. The bicarbonate of soda will provide alkaline pH, which is natural for the bowel and can help to bring yeast overgrowth down.

Lie down on the right side with knees brought up to the tummy, or assume a knee and elbow position (so the exit of the bowel is higher than other parts of the bowel, allowing the water to flow in). Let 1-1.5 litres of water into the bowel, take the nozzle out, gently massage the abdomen for a few seconds and then empty the bowel. This procedure should be repeated 2-4 times until the water starts coming out looking fairly clean which indicates that the bowel is empty. After that lie down on the back for a few minutes and relax. This will allow the remaining faecal masses (further up in the bowel) to move along the bowel to be expelled (a so-called 'ileal flush'). When the bowel is empty, slowly get the coffee in. It is desirable to keep the coffee inside for 15 min before expelling it to allow the coffee to absorb into the portal system. To hold the coffee for

that long I recommend keeping the pipe in the rectum (after the coffee has gone in) to allow gases to escape: accumulating gas stretches the bowel and causes an urge to empty too quickly. Changing position also helps to keep the coffee in longer. So, when there is an urge to empty, turn onto another side, or onto the back or assume a knee and elbow position.

The whole procedure takes about two hours, so allocate plenty of time for it and have a good book to read.

We've done two enemas with our child and neither has produced any enema water or stool, except for about a tablespoon of sludgy 'mud' stool. Is it dangerous for the probiotic enemas water to stay in my child's body? Is his body absorbing the water (maybe he was dehydrated?). Is it okay to continue doing more enemas when the water from the last one hasn't come out?

Yes, it is safe. One of the two things has happened: 1) the water got absorbed into the bloodstream because the body needs it; 2) the water got absorbed into dry solids in the bowel, which will soften them and they will come out next time. Add a teaspoon of sea salt and a teaspoon of bicarbonate of soda into every liter of water (as well as the probiotic); the salt and the soda will improve cleansing.

Although you highly recommend coffee enemas, on the other hand the Introduction Diet mentions drinking coffee is not recommended. Does this mean only the drinking coffee is not allowed or also coffee enemas? Either way they go into the intestinal tract and you mention coffee is really an irritant for the digestive tract. And if coffee enema is not recommended on the stage 1, from which stage are they recommended? When is drinking coffee allowed again on the diet? Are enemas made of bone broth also recommended together with probiotics?

Coffee consumed as a drink and coffee enema work very differently in the body, because the coffee goes into different parts of the GI tract.

When we drink coffee it goes into your stomach first, and it has an irritating effect on the stomach lining. The word 'stomach' here means the organ between your oesophagus and duodenum, and not the whole 'tummy'. Many GAPS people have inflammation in the stomach and suffer from reflux, indigestion, burping and heart burn. Drinking coffee, particularly on an empty stomach, will aggravate this situation. If you suffer from any of the above, do not drink coffee until your stomach has healed and your reflux and other symptoms in that area have gone for good. For people who generally don't suffer from reflux, burping and heartburn, drinking coffee is not recommended on the Introduction Diet; once on the Full GAPS Diet one cup a day (on a full stomach! – so, at the end of a meal) is usually tolerated, but not by everybody. So, make sure that it agrees with you. Coffee enema goes into your rectum and sigma, which are the last parts of your bowel and are a few metres away from your stomach. That area of the GI tract is designed to be very absorptive; it has a very rich capillary bed. The blood collected from that area goes directly into the liver, so anything delivered as an enema will hit your liver in seconds.

Coffee has substances (apart from caffeine) that cleanse your liver and speed up its ability to filter your blood, so your blood gets 'cleaner' as a result. That is why for many people coffee enema is effective for stopping a migraine attack and as a general pain relief. Please, read carefully the coffee enema procedure. You can add a probiotic to your coffee. If you are prone to constipation, you can do coffee enemas right from the beginning of the programme. If you have diarrhoea, I do not recommend any enemas at the beginning; let some healing take place in your gut first before attempting enemas. Meat stock and bone broth enemas have been historically used in malnourished people, who could not eat for whatever reason. It is very soothing and nourishing for the gut lining, and a fair amount of nourishment is absorbed into the bloodstream. If your bowel is sore and irritated, bone broth enema (particularly with some sour cream added) can be very soothing. Make sure to add good quality natural salt when cooking the broth. You can also add probiotics to this enema.

How often is colonic hydrotherapy recommended? Do you recommend Ayurvedic oil enemas?

Colonic irrigation can be very helpful; work with your colonic therapist on how long you should continue with the procedure. One problem with colonics is their expense. Enemas at home, which you administer yourself, don't have that problem, and you are more in control. Some people start with colonic hydrotherapy and then continue with enemas at home.

You can do all sorts of enemas at home. If you have sensitive or painful bowel I recommend doing enemas with meat stock, you can add some sour cream to it (it will soothe and add some beneficial bacteria to the bowel). Enemas with garlic are good for expelling worms and bringing candida down (start from 1/3 of a small clove of fresh garlic crushed into a litre of water, strain). Coffee enemas are very helpful for haemorrhoids and migraines. Adding commercial probiotics or homemade yoghurt, whey or kefir to your enema will help colonise the bowel with beneficial flora. However, using herbs in enema should be done under supervision, as herbs can be quite powerful. I have no experience with oil enemas.

EYES

Any recommendations for cataracts besides diet?

Yes, the diet is important to follow. Apart from that alive antioxidants can help, such as supplementing frozen bee pollen, frozen algae, dried acerola cherry, fresh cherries, all other fresh or frozen berries and juicing (particularly carrots and greens). Vitamins A and D are essential, so plenty of fresh eggs, liver and animal fats in the diet as well as cod liver oil. Swimming in the sea, lakes or rivers (living waters, free of pollution) keeping your eyes open under the water is also helpful.

FERMENTED FOODS & DRINK

How long should kefir be fermented? Is there some lactose left in it?

Kefir should be fermented for 24 hours minimum. Fermentation is a natural process: that is why it cannot be 100% predictable. Some batches of kefir may taste more sour than others, and every batch will have different amounts of lactose left in it. There is some lactose left in all fermented dairy products, even in aged cheese. It is the probiotic microbes in your gut flora, which we are providing in kefir and other fermented dairy, which break the lactose up in your gut. Indeed, vast majority of people have no problem with tiny amounts of lactose left in their homemade fermented dairy. In particularly sensitive individuals I recommend fermenting yoghurt or kefir longer (36 hours or even more), which will make it taste very sour but will reduce the lactose content. As you progress through the GAPS Programme and your gut starts healing, you may find that you can tolerate more and more lactose to the point of eventually trying raw milk and cream without fermenting them.

Does homemade yogurt made from a small sample of commercial yogurt have the ability to colonize the human gut lining or is it just transient? Where can gut lining colonizing bacteria be obtained and ingested?

Yogurt bacteria are generally transient. Human strains of probiotics are found in many probiotic supplements. However, the clinical experience shows that most of them are transient; when you stop taking them they leave your gut in a few days. It takes much more effort to normalize your gut flora than just pop a pill or eat yogurt; you need to follow the GAPS Diet for a year or two. When the environment in the gut changes due to the diet the gut flora will re-balance itself.

My question is, if we only have access to UHT pasteurized commercial milk and UHT whipping cream with added thickener (carrageenan E407), is it worth it to make yogurt, kefir and sour cream from those sources? Or is it best to just not use them because of their processing, so not having the sour cream or yoghurt or kefir in our diet?

It is not worth it to use processed milk products, you are correct. It is better to manage without dairy at all than use those. Do your best to find a source of raw organic milk, Weston A Price Foundation should help. If that is not possible try to find fresh organic pasteurized milk products.

Does sauerkraut contain the same amount of goitrogens as raw cabbage? I have thyroid cysts and should not have goitrogens.

Fermentation does reduce goitrogens and other anti-nutrients in the food. However, if you have a problem, initially avoid cabbage and ferment other vegetables. In about a year or

so, as your thyroid tests become normal, you can try some sauerkraut juice and see how you do.

I bought some sauerkraut from a holistic company, and it gave me a lot of gas and fermentation in my bowel. The company told me that sauerkraut was completely natural and organic. When I make my own sauerkraut I do not have these symptoms. Why?

The sauerkraut you bought has not been fermented long enough. It has not completed the fermentation process, where enough lactic acid accumulates in the cabbage to suppress microbial activity and stop the fermentation. If the cabbage and other vegetables are still fermenting, they will continue fermenting inside your digestive system, producing gas and giving you unpleasant symptoms. This applies to sauerkraut, kimchi and all other fermented vegetables. Sauerkraut takes about 2-3 weeks at a room temperature to complete fermentation, kimchi and other vegetable mixtures may take longer. How do we know if the fermentation is complete? It stops producing gas, the vegetables taste sour and do not spoil at all at room temperature or in the fridge, even if they get dry.

Are there any health conditions that would require fermented foods to be limited or avoided?

Fermented foods are teeming with beneficial microbes, which cause a die-off reaction. At the same time they are full of active enzymes and active nutrients, which can initiate “detox” and healing restructuring of the tissues in the body. All three can cause discomfort and unpleasant symptoms. That is why it is important to introduce fermented foods slowly and gradually, starting from juice of a plain sauerkraut or vegetable medley. Avoid mixtures which contain chilli peppers or other spices initially, start from plain mixtures of just cabbage and carrot in sauerkraut, and cabbage, beetroot and garlic in the vegetable medley. Make sure that the fermentation process is completed: the gas production stops and the product is quite sour- tasting. To complete the fermentation may take a few weeks longer than the recipe states, because of various differences in the vegetables, the temperature and other factors.

I find it easier to drink fermented veggie juice instead of the veggies. Is it beneficial to eat fermented coconut or apple cider vinegar with each meal? Can they be eaten in replacement of fermented solid veggies or are they less beneficial? Will the consumption of these vinegars or lemon juice lower my stomach acid too much?

It is absolutely fine to have fermented vegetable juices or juices pressed from fermented vegetables, as long as they have not been pasteurised. The same for vinegars: they are very beneficial to add to your water and to have between and with meals, as long as they are raw, not pasteurised. Many GAPS people find fibre a problem; and it may remain a problem for quite a long time, for some people for years. So drinking juices, rather than eating the vegetables is a good option for these people. The juice will provide probiotic microbes, enzymes and all the other benefits of the fermented vegetables, but without the

fibre. Consumption of raw vinegar or lemon juice will not reduce your stomach acid, just the opposite: they will stimulate its production and help your body restore normal stomach acidity over time.

How long after making yoghurt do the beneficial bacteria stay viable? Is there a window of time in which a batch of yoghurt should be eaten? Should yoghurt be frozen?

No, it is best not to freeze yoghurt, as it will kill a lot of the probiotic bacteria in it. Yoghurt stays alive for a very long time, in the fridge for a few months; it may continue fermenting very slowly and becoming more and more sour-tasting, but it will still be good for you, and it will still be good to use as a starter for making more yoghurt. So, if you are going away on holiday, for example, it is fine to leave your yoghurt in the fridge; when you come back it will taste very sour, but you can make new fresh yoghurt from it in 24 hours.

Is Kombucha allowed on Gaps? How do you know when all the sugar has fermented out?

Yes, kombucha is allowed, but I would not introduce it until you move to the Full GAPS diet. At that stage, if a little sugar is left in your kombucha, it will not do you any harm, as your gut will be strong enough to handle it. Just ferment it the usual way, so it tastes sour.

What would be the optimal amount of kefir and or yoghurt to consume daily? Can over-consumption be a problem?

The optimal amount is individual and should be found by gradual introduction of yoghurt and kefir, which is done as part of the Introduction Diet. Many people find two cups of yoghurt or/and kefir per day as a good amount; other people find that too much, yet many of my patients happily have much more than that per day. Over-consumption can swing a person, who used to be prone to diarrhoea to becoming prone to constipation. So, it is a matter of balance. If constipation has become an issue, then I recommend switching to fermenting cream, rather than milk: in many people that solves the constipation problem.

Do fermented foods help fight parasites?

Fermented foods introduce beneficial microbes into the body, which will play their part in a very complex interaction of various micro-creatures, who already live there. We do not know what exactly they do, but in a clinical setting regular consumption of fermented foods helps to eliminate digestive symptoms, caused by parasites.

For the GAPS patients at tropical latitudes, who might not have air-conditioned housing or access to temperate Western foodstuffs, can you recommend any hot-

weather fermented foods to substitute for the temperate-climate mainstays of sauerkraut, yoghurt and kefir?

People from tropics have their own traditional fermented recipes: fermented fish sauce, fermented coconut water, fermented vegetables and fruit. Most of these recipes are made by natural lactic acid fermentation (without adding any starter), where the bacteria naturally living on the food ferment it, as long as you create an anaerobic environment for them (covered with water or salty brine, or juice). There are some wonderful recipes in Sally Fallon's book *Nourishing Traditions*, and there are many other book and websites on fermentation. You have to use what is available in your natural environment; there is no need for milk products or any other imported foodstuffs, use what you have locally. Try to speak to old women in your society, they may teach you some recipes.

I have a question about eating lacto-fermented veggies. I've started GAPS and have been eating them for about 1.5-2 months now. The problem is my teeth are so sensitive when I eat them. Sometimes they start to ache when I try to chew the lacto-fermented sauerkraut or veggies. Can you tell me if this is something that should get better as I continue with GAPS?

Your teeth are sensitive because the enamel on them is too thin and is poorly nourished. So, I recommend that you stop using all toothpaste and replace it with olive oil: dip your toothbrush into good quality cold-pressed olive oil and brush as usual; rinse with water. This is based on an Aurvedic procedure called 'oil pull' which has a good ability to detoxify the mouth and initiate healing in your teeth and gums. Brush with olive oil twice a day. To nourish your teeth you need plenty of animal fats in diet and vitamins A, D and K. The animal fats will provide large amounts of those vitamins, but to add more you can take a good quality cod liver oil (preferably fermented). Sour cream made at home from raw organic cream will heal your enamel quite quickly.

While you are healing your teeth, reduce the amounts of fermented vegetables in your meals and drink their juice instead (added to soups and meat stock).

I have recently read that high levels of tyramine in fermented foods can be a cause of insomnia and should not be eaten past 5pm. I have read the GAPS book and searched the FAQs and haven't found any mention of this.

Vast majority of people on GAPS Diet consume plenty of fermented foods and do not react, including sleeping well after eating these foods with their evening meal.

Tyramine has a structure similar to dopamine and adrenaline and is formed by degradation of an amino acid tyrosine in foods when they are fermented. In a healthy body it is degraded by an enzyme monoamine oxidase (MAO). People who are not producing enough of this enzyme, or if this enzyme is inhibited by a drug (from MAO Inhibitor group), can react to tyramine with high blood pressure, headaches, insomnia and other symptoms. Some toxins produced by abnormal gut flora act as MAO inhibitors too.

If you react with a migraine, mood change, insomnia or any other symptom after eating natural cheese, for example, then your body may not be producing normal amounts of MAO. Follow the diet for a few weeks without fermented foods and use a commercial probiotic instead. When your digestion is much better (which means your gut flora is changing), try to slowly introduce homemade yoghurt, whey or sauerkraut starting from 1 teaspoon per day. You may find that at that stage you are not reacting anymore.

Your book says that we may start a batch of yoghurt by using a bit of previous batch of your yoghurt/sour cream. The instructions that came with my culture say this as well. However, the SCD website says never to do this, and the good bacteria can mutate over time to undesirable strains. Please explain.

Human kind used to ferment dairy for millennia without any commercial yoghurt starters. People just kept using some of the previous batch of yoghurt or kefir to ferment the new one. I have no doubt that microbes do change and in every household the formula is probably unique to that family. The microbial composition would also change with changing composition of milk through the seasons (the mixture of grasses change, the weather, pregnancy in the animal alter the quality of milk). Even using a commercial starter the composition of milk you ferment will have an effect on which strains will thrive in it and which will not. So, it is natural for every batch of yoghurt or kefir to be different, and people were always guided by the smell and the taste of their yoghurt to know if it is good.

In severe digestive problems it may be a good idea to have stability in this area by using a commercial starter on every batch. As the digestion gets better and the symptoms subside the person may find that they can be more relaxed in fermentation and start using their previous batches of yoghurt to ferment new milk.

Are you familiar with the concept of aldehyde toxicity from fermented foods? It seems the toxicity is worse from beers, wine, etc than from kefir, cheese and yogurt. I have seen some people talk about this and wondered what your view was.

There is a big difference between what our science says and the real life. I have seen many people trying to be very 'scientific' and that usually leads to confusion. Our science does not know everything; it only provides you with a few little pieces in a huge jigsaw puzzle of life. Those few pieces can easily lead you astray because they do not provide the whole picture.

If you start analyzing/dissecting any natural food 'scientifically' you will find toxic (sometimes downright poisonous) substances in it. Yet, as a whole the food works. This is the wisdom of Mother Nature – the thousands of various 'ingredients' in natural foods are all balanced with each other. Fermented foods do not equate to aldehydes, these substances are balanced with thousands of other substances in the natural fermented food. As a whole the food works and clinical experience and wisdom of generations of people in traditional cultures can testify to that.

The important thing to remember is that fermented foods are teaming with beneficial bacteria and enzymes and can initiate serious die-off and detox. So, it is essential to introduce them very gradually and slowly, starting from no more than 1 teaspoon per day.

In some traditions pickling is done with putting lots of different chopped vegetables and herbs and then preserving them with some kind of vinegar. Will this method of pickling vegetables and herbs allow the probiotics existing in them to live in that environment, or will using the vinegar destroy the beneficial microbes and probiotics?

Vinegar pickling is different but has its benefits. It is not teaming with probiotic bacteria but it is a good digestive, it stimulates stomach acid production and helps to digest meats and other protein foods. I would use both the probiotic fermentation and pickling with vinegar. Depending on your family's tastes it will provide a variety.

FOOD INTOLERANCE & SENSITIVITIES

If I don't have many digestive symptoms to speak of, but want to go through the Intro Diet to resolve food intolerances, what is my cue from my body to know when to move to the next phase?

Your food intolerances are your cue (whatever symptoms they bring for you individually). Moving to a new stage involves introducing new foods. If a new food causes a reaction then you are not ready for it, go back to the previous stage and give it another 1-2 weeks before trying to move on again. Many people have to go through this 'dance' back-and-forth between the stages of the Intro diet for a while before their individual food intolerances clear.

My 5-year-old developed a stuffy nose about 4 months ago that never went away. He is currently mouth breathing, which seems like a concern. Could this be food-related? He has been eating GAPS for 2.5 years.

This is likely to be due to food allergy/intolerance, which means that some food is absorbing through his gut lining partially digested. It may be a good idea to go back to the Introduction Diet, allow the congestion in his nose to go away, and then go through the stages quite quickly and see if you can identify the food which he is not ready for. Everyone is a unique individual; your son may not be ready for a particular food yet. In a year or so avoiding this food he may be ready to try it again.

When an animal is fed grains does this affect people on the GAPS diet? In other words should we ONLY be eating meat broth, bone broth, meats, etc that is ONLY grass-fed?

There are people who are so sensitive to grains that they have to find meats from only-grass-fed animals. However, majority of people are not in that category, they do perfectly well with any meat, even conventionally raised.

How can you tell the difference between die-off and food intolerance? For example, how do you know if flatulence is caused by the meal you just ate or from the meal prior to that one?

The die-off symptoms can be new symptoms or can be your usual symptoms getting worse, when you introduce new diet, probiotics or anti-parasitic, anti-fungal/anti-bacterial remedies. Food intolerance symptoms appear when you introduce new foods into your diet. If you have been eating a particular food routinely, which you suspect as causing food intolerances, remove it for 3-4 weeks, then try to eat it again. Your body will let you know if you are intolerant to it. Production of gas takes time; it is the pathogens in the gut (usually fungi) that convert food into gas. So, it is your previous meals that produced the gas. Every meal sends a propulsion reflex down the digestive system, so that gas in the bowel may be released when you are eating your next meal.

Now and again, a well-intentioned friend or waiter will say something is gluten-free when it is not. Gluten causes my husband 1-2 weeks of psychological and behavioral symptoms. Is there any way to shorten the duration of these "wheat trips" when they occur?

Work on healing his gut with the GAPS Introduction Diet. When accidents happen, take digestive enzymes: first HCl&Pepsin, 1-4 capsules (depending on how big the meal was), then in 10-15 minutes a full pancreatic formula (proteases, lipases, etc), 2-5 capsules.

Is it possible to be sensitive to bone broth? What should you do if you are reacting to bone broth?

It is possible to be sensitive to any food, though sensitivity to bone broth is quite rare. Try to make different meat stocks and see if you can find one that you can tolerate: from a whole chicken, from a leg of lamb, from a joint of beef, from a whole fish (gutted, but with the head and tail), from pigeons, pheasants, a joint of venison, a joint of pork, etc. Make sure that not only bones are used but a good piece of meat on the bone. Make sure that you start with uncooked meat and bone and don't mix meats from different animals: just make a chicken stock or a lamb stock, etc.

Once a food has been successfully introduced without any negative reaction, can the sensitivity to that food come back in the future?

It can, unfortunately. It all depends on how "leaky" your gut wall is at the time. Many factors can damage your gut wall: stress, parasites, cheating on the diet, getting run down, travelling, etc. If that happens, try to go back to the Introduction Diet and heal your gut again.

How do you go about implementing GAPS for someone with severe meat allergies (except fish) – to the point that they get very ill immediately after ingesting them? What would be your plan of action?

It is very rare to be allergic to all meats. Try wild game, such as pheasant, pigeon, quail, deer, wild boar, or whatever other wild meat you can get locally. We start from meat stock, made with these meats. Regardless of your experiments with wild meats, also make fish stock from heads, bones, fins and meat of large fish or whole small fish (about a kilo per a five-litre pan). Please, look for recipes in my book on how to make fish stock. Fresh water fish is very good, if it comes from clean lakes and rivers. Deep-water sea fish is preferable (such as herring, sprats and anchovies) to the coastal ones (such as cod and mackerel). Also avoid large carnivorous fish, such as tuna, shark or sword fish. Make sure to alternate varieties of fish; do not fall into a routine of eating the same species all the time.

Which symptoms should you push through and which symptoms are a sign that you should remove the food?

If the symptoms are due to die-off, initiated by the introduction of probiotics, the diet or natural anti-parasitic remedies, then continue gradual increase of the remedies and gradual progression through the diet, keeping the die-off at a manageable level. If new symptoms appear after introducing new food, then you are not ready for that food (your gut lining is not ready). Remove the food, work on healing your gut lining with the diet and probiotics for a few weeks, and then try the new food again.

In your book you mention that GAPS people often have an overgrowth of sulphate-reducing bacteria. If I suspect this to be the case in my child, should I avoid feeding him foods that contain high amount of sulphur?

No, do not remove sulphur-containing foods! Sulphur is essential to re-build your child's gut, immunity and liver function. GAPS people are already deficient in sulphur; they cannot get enough of it. As the gut flora starts changing the beneficial microbes will take care of the pathogens and normalise your child's sulphur metabolism.

Even the smallest amount of any probiotic food or supplement causes me severe bloating, fatigue and pain. How do I do the diet if I can't take probiotics? Are there any conditions where probiotic are not recommended?

People suffering from ME, chronic fatigue syndrome, fibromyalgia and some other debilitating conditions often have difficulties introducing probiotics. The reason for that is the die-off effect: it is so severe in this group of patients that they find it very difficult to cope with. Just start from a tiny amount and go up very slowly. I have patients who start from 1/18th of a capsule of the Bio-Kult (or as much powder as would fit on the end of a sharp knife), and it takes them months to get up to one capsule per day. The same with fermented foods, start from a tiny amount per 5-7 days; as your body gets used to

that amount, start taking it a bit more frequently. When you can take that tiny amount every day, start increasing the dose. Proceed in this very slow manner. It is important for you to introduce probiotics in the form of food or supplement. You just have to go slowly.

Is gluten intolerance a subset of GAPS or is it something independent?

Yes, gluten intolerance is a subset of GAPS. Gluten is a large protein molecule and is quite difficult to digest, even for people with a healthy gut. People with abnormal flora and hence damaged gut function are much less able to break gluten down. In those people where gluten absorbs partially digested the immune system can develop antibodies against it, which leads to celiac disease.

I am mostly doing GAPS because of multiple food intolerances in my kids and a history of the same for myself. It seems that it really is only getting worse. I need to understand the 'science' of why that is.

There is a so-called masking phenomenon in food allergies. When the person keeps eating offending foods, reactions to them overlap with each other and it is impossible to know what exactly the person is reacting to. When you start removing foods hidden allergies get unmasked, which is often a nasty surprise. In GAPS people their gut is damaged and porous, so they may react to most foods, if not all of them. As we cannot starve ourselves, we need to ignore those reactions and get on with healing the gut lining. If a particular food is causing an unacceptably severe reaction, then keep it out for a while. But if the reactions are not too drastic, just live with them, while working on your GAPS Introduction diet. In the meantime bio-resonance therapy, medical neutralisation, homeopathy, NES and other vibrational forms of medicine can help you to reduce the severity of reactions.

I feel that as I spend more time on this diet I seem to become more sensitive to foods. Should I not be healing and thus handling foods better the longer I am on the diet? Should the gut lining now be closing and healing so less food crosses into the blood stream to create a reaction?

Please read other FAQs questions on sensitivities and intolerances.

If you have given a good amount of time to healing your gut lining with the GAPS Introduction Diet (about a year at least), then perhaps it is time to do some testing. Parasites and worms can keep your gut lining damaged against all your efforts. With testing it is always best to work with a health practitioner, who will be able to interpret the test results and help you with the treatment.

What is one with multiple food intolerances to do if after establishing a base-line of 'safe' foods while on the Intro Diet, then begins becoming certainly intolerant of those foods (while still on the Intro Diet) and reacts even upon reintroduction weeks later? I

know variety is important in diet so one does not overtax his system with a certain food, but what if one can only tolerate a few vegetables and continues to become intolerant of those?

This is called 'the masking phenomenon'. The person may not realize that they are reacting to the food until other foods are removed (foods which used to produce a much stronger reaction masking weaker reactions from other foods). Any sensitivity to food is a sign of damaged gut lining and abnormal gut flora. I have a group of patients in my clinic (mainly with ulcerative colitis and Crohn's disease) who cannot tolerate any plants at all; they just eat animal foods and are doing very well. They eat meat stock and bone broth, boiled meats and fish, eggs and fermented dairy. Some of these patients have been on this 'no-plant' diet for 2-3 years; they feel great and look very healthy. When they try any plant, cooked or raw, their symptoms often return. So, 'variety in food' is not that important. If you think about traditional cultures that relied entirely on their local environment for food supply; they often had a very limited variety of foods, particularly in winter. Yet, they were found to be very healthy.

In my experience people with severe food intolerances do best on the 1-2 stages of the Introduction diet; they have to adhere to it for quite a long time before they are ready to move on. Also, you may need to deal with worms and parasites before introducing new foods; please look in the *Worms and parasites* section in FAQs.

After 3 weeks on the diet, my gut is very sensitive to any foods not on the Intro stage. Foods that never used to affect me. Is this a sign that there is healing going on?

This is called 'the masking phenomenon'. The person may not realise that they are reacting to the food until other foods are removed (foods which used to produce a much stronger reaction masking weaker reactions from other foods). You were sensitive to those foods before without realising it. Keep healing your gut with the Introduction Diet to remove all these sensitivities. In my experience people with severe food intolerances do best on the 1-2 stages of the Introduction diet; they have to adhere to it for quite a long time before they are ready to move on. You may need to deal with worms and parasites before introducing new foods as they will continue damaging your gut lining.

FRUCTOSE MALABSORPTION

Does the GAPS diet heal fructose malabsorption, or would the GAPS diet need to be modified?

This condition is part of GAP Syndrome as well as lactose intolerance and most-sugars-intolerance. Why? Because in people with abnormal gut flora enterocytes (the cells which line the gut) are damaged and unable to fulfil their main function: digestion of sugars. The fructose malabsorption became prominent since high-fructose corn syrup came on the market: this is a processed sweetener which is extremely harmful to health. But as it is cheap to produce and very profitable for the manufacturers many processed foods and

drinks are sweetened with it nowadays. GAPS diet removes double sugars and there is no need to modify it. If you have been specifically diagnosed with fructose malabsorption, you may want to avoid fruit and honey initially. As you go through the GAPS Introduction Diet, your enterocytes will start recovering and you will be able to re-introduce honey and fruit.

There are some foods allowed on the GAPS diet that are not allowed on a low FODMAP diet. Yet both diets have overlapping intentions. Applying both diets simultaneously is very restricting. Why are some polysaccharides like fructans allowed in the GAPS diet?

I don't know of any situation when one will need to follow both approaches at the same time. I am not very familiar with FODMAP and cannot comment, but GAPS Nutritional Programme alone works for my patients. GAPS programme is based on natural foods, and there is no need to worry about their composition, as long as you follow the guidelines.

A large percentage of the population, me included, tests positive for fructose malabsorption. Why is fructose not limited, although it arrives in the colon in that part of the population?

Always stay away from pure fructose or any other processed sugars! Fructose, when it comes as a part of natural foods is handled perfectly well by the GAPS gut, as long as your gut is ready for this step. Go through the Introduction Diet first and introduce fruit when you are ready for it. The fact that you are not digesting fructose-containing foods very well now does not mean that you will not be able to digest them perfectly well after a few months on the programme.

GAS/FLATULENCE

As far as I understand, gas is a sign of fungi presence in the gut. Should one go back to the second stage of Intro and stay on it until there is absolutely no gas? Does one have to eliminate gas completely in order to heal his gut or will it just heal over the course of time?

Yes, gas is produced largely by fungi in the gut. Some amount of gas is normal, but not too much. You do not have to go back to the Intro diet, but just remove foods for a while which may be feeding fungi: fruit, nuts and baking.

I have been on GAPS for a few months and found my digestive issues are improving (for the first time in my life I am often having 2 good bowel movements per day). However I seem to have developed a large belly and not sure what this is. It is soft and not uncomfortable but I do look pregnant. I'm not sure how to know what is causing this and what to do. How do I know if it is water retention, gas or fat?

I would give it some time; it is a stage in your healing process. It is likely to be gas produced by yeast. Yeasts are the natural waste recyclers in the body. Your bowel is a major venue for removing toxins out of the body; the GAPS Programme will start delivering these toxins to the bowel for elimination, and yeasts will work on them. Try to do some enemas and see if that makes a difference, as enemas will remove toxins out of your bowel quicker.

A few weeks after starting the GAPS diet I developed rotten egg smell gases that tend to start towards the end of the day. I have never had this problem prior to GAPS and wondering what I can do. I have read this can be to do with sulphate-reducing bacteria? Or is it that there is some food I am not digesting well causing the same smell? Could a supplement of MSM be helpful?

Try to supplement HCl&Pepsin – take 1-2 capsules before every meal. If proteins are not digested well, then the sulphate-reducing bacteria in the gut will work on them and generate gas. You may also add digestive enzymes which contain proteases; take them after the meal. As you progress through the diet and your production of stomach acid and pancreatic enzymes normalises you will be able to stop taking those supplements.

GOUT

Will GAPS benefit those with gout?

Yes. I am convinced that gout is caused by particular pathogens living in the gut of the person. These pathogens produce toxins which interfere in the normal urea metabolism, causing gout. GAPS Nutritional Protocol works very well for these patients.

Should someone with reoccurring gout due to IgA nephropathy with decreased kidney function be concerned about the high purines in the broths and meats eaten on the GAPS Diet? Also, is it true that fermented foods can cause acid elimination problems?

I believe that gout is caused by activity of pathogenic microbes in the gut. GAPS Programme will normalize the gut flora and heal the gut wall. In my clinical experience there is no problem from eating meats and meat stock and broth. Gout activates when carbohydrates are consumed, particularly grains and beer. Fermented food will improve your digestion and bring down pathogens. I am not aware of any aggravation of gout with fermented foods.

Can you please discuss gout and your recommendations?

I am sure that gout is caused by an overgrowth of particular pathogens in the gut (what pathogens nobody studied yet, to my knowledge). These pathogenic microbes produce certain toxins, which block up the uric acid detoxification pathway in the liver. As a result the salts of uric acid get distributed around the body and settle in joints as very

sharp crystals. These crystals cause the typical severe joint pain and inflammation of gout.

Because uric acid is formed from purines in the body, the mainstream thinking blames them for gout advising not to eat meat. Majority of purines come from our normal body metabolism, not from food, and have very little to do with gout. The real culprits are processed carbohydrates, sugar, high-fructose corn syrup and beer! Beer causes gout in two ways. First, beer is very starchy and has other carbohydrates in it, which feed those pathogens and let them produce their toxins. Secondly, beer provides some alcohol which occupies the liver for a while and stops it from attending to other toxins. Over-consuming any alcohol (including wine) can start a gout attack, because the liver is too busy dealing with alcohol and cannot clear the toxins out.

What do we do when gout strikes? Stop eating, drink only water and do coffee enemas. Fasting and cleansing the liver with coffee enemas stops the attack quicker than anything else. To reduce the pain you may have to take painkillers (choose whatever works for you). To stop gout long-term follow the GAPS diet to change your gut flora and drive out pathogens.

HAIR, SKIN, & NAILS

Why do some GAPS patients experience tooth discoloration and hair loss?

Tooth discoloration and hair loss are very rare in GAPS patients, and usually happen in very toxic people, particularly people with metal toxicity. Hair and teeth are those places where the body often stores toxins in. Many things happen in the body, as the GAPS program is initiated. We don't know what happens exactly, but it is possible that the hair, full of toxins, get dropped by the body to allow new "clean" hair to grow. With teeth: I have seen autistic children who had their permanent teeth growing with black spots imbedded in them. One particular boy displayed noticeable improvements in his autism in the weeks following the removal of the black spot by the dentist. It is possible that his body had stored mercury from vaccinations or some other toxins in the growing tooth. We don't know what happens exactly, but it is likely that the detoxification initiated by the GAPS Nutritional Protocol starts shifting the toxins around, which may be the cause of tooth discoloration in the initial stages. In the long run, however, your child is likely to grow beautiful whit teeth, as I have seen in so many GAPS children.

Can the GAPS diet help with alopecia?

Alopecia can be caused by many things: nutritional deficiencies, allergy, hormonal imbalance, toxicity, auto immunity, diabetes, vascular abnormalities, etc. No matter what the cause, following GAPS will help to balance your hormones, remove nutritional deficiencies and toxicity, re-balance immunity and improve circulation. So, give it a try.

We have been using GAPS protocol for nearly one and a half years. One area that I am not seeing improvement in is that we suffer from very dry skin. It is a real problem including badly cracked heels. This is throughout the family, and has been a lifelong problem. I supplement with omega-3 in high doses, and have tried various enzymes including Betaine HCl, ox bile and lipase. Nothing seems to make a difference. Do you have any suggestions?

Dry skin means that your body is unable to assimilate and handle fats well. This can be due to many reasons: overgrowth of yeast, toxicity coming from the gut and lack of saturated fats and fat-soluble vitamins. The body cannot use omega-3 fats without good amounts of saturated fats in the diet and fat-soluble vitamins A, D, K and E. So focus on eating plenty of animal fats: lamb, beef, pork, goose, duck, etc. Raw fats are particularly valuable and should be eaten as much as possible (such as raw butter, raw sour cream, cured pork fat and coconut oil). Sunbathing is the best source of vitamin D, so take any chance to sunbath. Swimming in the natural waters of the sea, rivers and lakes can do wonders for dry skin as well.

While many of my symptoms have gotten better after a year on the GAPS Diet, my rosacea has not. It gets worse when eating honey, nuts, tomatoes and sometimes for no reason. I have read many articles about rosacea with different opinions on what it is, from being dermodex mites living in bacteria in digested accumulated proteins in the skin, liver tissues, SIBO clearing with antibiotic therapy, allergies and sensitivities, inflammation, vascular disease, etc. In short my question is: in your experience can rosacea be cured? What is exactly rosacea? How can I help myself?

The ancient Chinese medicine states that ‘face is the mirror of the bowel’. I absolutely agree with that! When the bowel flora is abnormal the whole body metabolism is abnormal: the tissues and organs (including the skin) are malnourished while being under attack from toxins, microbes and autoimmunity. This is what causes rosacea in my opinion. Our face is exposed to the environment all the time, so when it is not nourished properly, intoxicated and under autoimmune attack, it becomes an easy target for any infection to invade it. So, indeed various bacteria, fungi, viruses, mites and other microscopic creatures can get involved. The immunity (heavily present in the skin) is out of balance reacting to chemicals applied to the face, microbes and any other environmental influences; and it is these reactions of the immune system which create the picture of rosacea – redness, inflammation and pimples. Why is the immune system unbalanced and reacting like that? Because of what is going on in the gut of the person. By working on the GAPS Nutritional Protocol you will lay the ground for healing your skin, so your skin becomes well-nourished and able to protect itself. In many cases that is enough to remove rosacea. In more stubborn cases, where indeed the skin has been invaded by mites or other microbes, natural topical preparations can be used with good effect: herbs, oxygen, fresh fruit and barriers applications, honey and seaweed applications, etc. Until you deal with the gut many of these preparations don’t work or work temporarily (when you stop using them the skin gets re-infected, because it is still malnourished, intoxicated and attacked by autoimmunity and cannot protect itself).

In the meantime it is essential not to use any man-made chemicals on your skin! The general rule is: If you cannot eat it you cannot apply it to your skin! Only natural things should be used on your skin. Make up and other toxic things applied to your skin will not allow you to heal.

Could you please discuss the effects you have seen on patients suffering from chronic hives? I have suffered on and off for 8 years.

Hives, hay fever, asthma, eczema and other atopic conditions are due to the unbalanced immune system. Please, read about it in detail in my GAPS book in the chapter on immunity. GAPS Programme re-balances the immune system and removes atopy. In some patients these symptoms disappear very quickly, in other patients it takes time.

Is Idiopathic Guttate Hypomelanosis something that will be reversed and /or prevented from getting worse with GAPS? Is there something I should be doing in addition?

Idiopathic guttate hypomelanosis is the name given to 2 to 5-mm flat white spots found on the shins and forearms. 'Idiopathic' means the cause is unknown, 'guttate' means resembling tear-drops, and 'hypomelanosis' refers to the lighter colour of the affected areas. It is thought to be a part of the ageing process in light-skinned individuals. The microscopic changes in the skin indicate that this condition may be autoimmune. I believe that all autoimmunity is born in the gut. So, try the GAPS Nutritional Programme, as it will re-balance your immunity. A course of beta-carotene supplements (and/or drinking freshly-pressed carrot juice, watermelon juice and juice from greens) helps to remove many toxins from the skin and improve the ability to sunbath.

Would the GAPS diet help with spider veins and chronic hives?

The GAPS Programme will help with chronic hives, as it re-balances your immune system. Spider veins are small veins which have been paralysed by trauma, infection or another influence; they are unsightly but do no harm. The only way to get rid of those is laser treatment which cosmetic clinics do.

Why do some people get itchy skin after some sun exposure (not getting burned)? Could this be to do with toxins in the body? Is it still safe to continue sun exposure?

Photosensitivity has become a big problem in the industrial world: people get itchy skin or a rash after being exposed to the sun. These are people who have stored lots of toxins in the skin, and the sun is trying to remove them. Beta-carotene in supplements or in a freshly pressed carrot juice targets the skin and helps to detoxify it. So, before the sunny season starts, take a 2-3 months course of beta-carotene or drink lots of carrot juice (to the point of getting an orange tinge to your skin, which is harmless by the way). People of Viking origin may have a problem with sunbathing: they find it difficult do not tan and burn easily. These are people with red hair, freckles and very light skin. If you

look at history of Vikings, they subsisted on oily fish getting large amounts of vitamin D and cholesterol in their diet. So, they did not need to produce vitamin D in their skin, which compensated for the lack of sunlight in their environment. So, for these people it is important to start sunbathing slowly and build the time in the sun gradually, while eating lots of oily fish. I know some of these people who also improved their ability to sunbathe after a course of beta-carotene.

Splitting skin at fingertips, knuckles, lips and corners of mouth – commonly with pink spots at corners of the mouth – seem to be a common die-off reaction amongst members of our GAPS group. Would you have any comment on this?

These are usually due to deficiencies in B vitamins, Zn and possibly other nutrients. As the person goes through die-off and detoxification, these nutrients are consumed by the body at a much higher rate, so it is easy to run out of them. Make sure to eat liver regularly and fresh eggs to supply these nutrients, and take good quality cod liver oil. Topically try to apply raw butter, lamb fat or beef fat.

Spots around the mouth are also due to mouth flora spreading out. Replace your toothpaste with olive oil (or another good-quality cold-pressed oil): dip your toothbrush into olive oil and brush your teeth as usual twice a day. This idea is based on an Aurvedic ‘oil pull’, which is a time-proven method of detoxifying the mouth. Open a capsule of a good quality probiotic on your tongue at bedtime, overnight the probiotic bacteria will work on your mouth flora.

Any suggestions for treating Lichen Sclerosus?

Lichen Sclerosus is an atrophy of the skin, when the person develops white patches, usually in the groin. This condition is likely to be autoimmune: the immune system is trying to remove some invading microbe or/and its toxins. Populate the area with beneficial flora by applying homemade kefir or sour cream daily after a shower or a bath. To re-balance your immune system you need to implement the GAPS Programme.

You recommend sunbathing. Are there any suggestions as to when is the best time of the day to get the sun, and how much time is needed?

Sunbathing is essential for all of us, but for GAPS patients it is particularly important. Not only is it the best way to supply the body with vitamin D, but sunlight has many other beneficial effects on the body. Many parts of the sunlight spectrum get through to the human organs and tissues reducing overgrowth of pathogens, detoxifying and bringing healing. So, in the warm season a GAPS patient needs to sunbathe as often as possible, preferably every day.

It is important to build the sunbathing time up gradually in order not to burn. At the beginning of the season when the skin is not used to the sun, I recommend starting with 30 minutes of sunbathing per day: 15 minutes on each side (front and back). Gradually

increase the sunbathing time to 1-2 hours per day. After every session the skin will accumulate some pigment, called melanin, which gives the skin brown colour and protects it from burning. So, when the skin becomes well-tanned the person can be in the sun for hours and never burn. If some burning happened apply homemade sour cream, coconut oil or *Aloe Vera* gel overnight; and miss a day or two of sunbathing to allow the skin to recover. In the middle of the summer, when the sun is very strong, avoid midday hours from 11.30am to 4pm; at other times of the day sunbathing is safe and very beneficial, particularly first thing in the morning.

I do not recommend using any chemical sunscreens, as most of them are toxic. If you have to spend a long period of time in very strong sunlight use natural alternatives, which are usually based on zinc oxide. But the best solution is to cover yourself with light-coloured clothing and wear a hat.

People from dark-skinned ethnic backgrounds have a lot of melanin in their skin already, so their skin lets much less sunlight through. Their bodies were designed to spend a lot of time in strong sunlight, which is essential for their physiology and good health. When dark-skinned people move to colder countries they put themselves at risk of not producing enough vitamin D in their skin, which predisposes them to developing degenerative disease. That is why it is essential for these people to sunbathe more than people with white skin would do.

People who are photosensitive or burn too easily have too many toxins stored in the skin: these toxins cause burning or a skin rash/heat rash when exposed to sun. To get rid of this problem take a course of beta carotene prior to the sunbathing season: two months of drinking 2 glasses of fresh carrot juice or taking a supplement of beta carotene.

Since being on the GAPS diet, I've been experiencing frequent cold sore eruptions. Is this indicative of detox? What about other skin eruptions such as rashes, eczema, etc.

Cold sores are caused by viruses of the Herpes family. When we eat a lot of nuts and raw fruit, particularly citrus fruit, our body metabolism changes in a way that favours these viruses (chocolate and coffee will do that as well). So, if you are prone to cold sore eruptions, genital herpes or shingles remove these foods out of the diet for while. Have plenty of warm soups and rich stews instead. Supplementing L-lysine for a few days will help: an adult needs about 4-5 grams per day, a child half of that amount. Keep warm and avoid stressful situations as stress always aggravates viral infections.

Other skin rashes and eczema have a different mechanism; they are usually due to the imbalance in the immune system, die-off and detox. Our skin is a major detoxification organ: many toxins leave the body through sweat. When these toxins go through the skin they cause damage on the way; the immune system is then tries to deal with that damage and adds inflammation. It is the inflammation that shows up as a rash, often itchy. So, to remedy eczema or any other rash long-term we need to reduce the level of toxicity in the body. As most toxicity comes from the gut that is the place we need to heal with the

GAPS Nutritional Protocol. Short-term: baths with bicarbonate of soda (1/2 a cup per bath) or oatmeal (put uncooked oatmeal into a cotton bag and run the bath through this bag) will help. As a moisturiser apply any cold-pressed edible oil onto the patches, or raw butter, or sour cream or mashed ripe avocado. Very severe eczema patches (wet and cracked skin) will get a lot better with applications of raw honey or seaweed overnight. Alternate the two: apply honey or seaweed paste thickly (add some hot water to seaweed powder to make a paste), cover with cling film or parchment paper and wrap in cotton cloth. In the morning rinse off and apply any edible oil or fat.

Remember the general rule about skin: IF YOU CANNOT EAT IT DO NOT APPLY IT TO THE SKIN! The skin absorbs most things applied to it; if you are using man-made chemicals they will not only be in your bloodstream in seconds but they will stay in your skin for a long time and make it sicker.

Do you recommend some kind of light box to get light in a dark country in winter?

Yes, many people find it helpful. But if you get a sunny day make sure to make the best of it, expose your face to the sun as much as possible.

I live in North Western WA, USA and we don't see the sun for around 9 months of the year (it feels that way at least!). Would tanning in a salon be a healthy alternative? I have heard the body can create vitamin D this way.

I do not recommend tanning beds; they are not natural and they do not produce the same light spectrum as the sun does. To keep your vitamin D status healthy eat plenty of animal fats and take cod liver oil. There are many other health benefits from the sun light apart from vitamin D production, so spend time outdoors in winter as much as you can, particularly on sunny days.

HEADACHES & MIGRAINES

Chronic headaches - is this a sign of GAPS?

There are many different forms of headaches. Migraines often respond to GAPS treatment well. Headaches due to high blood pressure will respond well, as most cases of hypertension are due to magnesium deficiency, which GAPS programme will eliminate. Many headaches are due to food allergy and intolerance. Healing the gut will eliminate the allergy and the headaches. Many headaches are hormonal: abnormal gut flora upsets the hormonal balance in the body, leading to headaches. GAPS programme will allow your body to bring the hormones into balance. Most headaches, no matter what origin, have a toxic component to them. Most toxins in the body come from the gut, so healing the gut and cleaning it up will reduce the toxic load in the body and help with headaches. Many headaches have a tension component to them due to our fast-paced stressful lives.

The GAPS diet will nourish the adrenals and allow the body to cope with tension and stress much better. But good sleep, enough sleep, and giving yourself some time every day to do something relaxing and pleasant just for you, will help with all forms of headaches.

Could you please discuss migraines; what causes them? Can they be prevented? Is there anything that can be done to stop the pain? Is there a difference between ones that happen randomly and ones that happen with menstruation or ovulation?

Migraines are vascular headaches which usually happen in one side of the head. First a spasm happens in the wall of a meningeal artery; the spasm does not last long (a few minutes) and is followed by a paralysis of the wall of the artery, which can last for days. The paralysis leads to swelling and inflammation of tissues around the artery wall, causing a headache. What cause the spasm in the first place? Many factors can do that and we do not have all the pieces of the puzzle yet. In GAPS patients it is toxicity from the gut that plays a major role. One mechanism is overproduction of histamine in the gut (which is produced by pathogenic microbes), which drop the blood pressure too low and initiate the spasm. Around menstruation and ovulation a rapid change in hormones in the body can initiate a migraine. In the second half of the menstrual cycle our immunity is suppressed by progesterone, so any overgrowth of pathogens in the gut and elsewhere in the body gets more active, producing more toxins than usual and initiating the migraine. GAPS Nutritional Protocol over time will help to reduce amounts of toxicity in the body, re-balance hormones and as a result help with migraines. As an emergency procedure many people find coffee enemas very helpful.

Coffee enemas are one of the best ways of cleansing your liver and speeding up detoxification process in your body. It gives a good pain relief as well.

To prepare the coffee bring to boil 1 litre of water, add 3 table spoons of organic ground coffee, boil for 2 min, then reduce the heat to a minimum, cover with a tight lid and simmer for another 10-15 min. Cool down and strain.

Before doing the coffee enema, it is a good idea to have a good cleansing enema with warm water (dissolve ½ a teaspoon of sea salt in the water and ½ a teaspoon of bicarbonate of soda). To clear your bowel completely let some water into your bowel (about one litre), empty. Then let more water into the bowel and empty again. Do it 2-4 times until the water starts coming out looking fairly clean to indicate that your bowel is empty. After your bowel is empty, slowly get the coffee into your rectum. Remove the tube and lie down on your right side or any other comfortable position. Try to keep yourself comfortable and warm. It is desirable to keep the coffee inside for 15 min before emptying your bowel. Initially you might not be able to hold it for that long. Don't worry about it. With time and experience you will be able to do it. To hold the coffee longer, I recommend keeping the pipe in your rectum for a while (after the coffee has gone in) to allow gases to escape: accumulating gas stretches the bowel and causes an urge to empty too quickly.

Coffee enemas help in majority of migraine headaches, but not in all cases. Sometimes painkillers have to be taken as well. But clearing the bowel helps long term, as it reduces the amount of toxicity coming into the body.

I understand that the GAPS Diet can be helpful for migraine sufferers. However fermented foods tend to be a trigger for migraines and so I'm wondering what advice you give regarding using fermented foods if you are afraid to trigger further migraines? Will the reaction to fermented foods diminish over time as the toxic load reduces and the stomach heals, or is the reaction to fermented foods caused by something different altogether i.e. a reaction to histamine and tyramine not related to the stomach?

Coffee enemas are an immediate remedy for migraine, very effective. It will not only stop the attack but remove a large amount of toxins from your bowel. It is toxicity coming out of the bowel that causes headaches, some of these toxins are histamine and tyramine (we have studied these a little, but most of the toxins we have not studied yet). The amount of histamine and tyramine coming out of the bowel is much, much larger than any fermented food will ever provide you with. As you start 'unloading' your bowel, you will be able to tolerate fermented foods better. Please see the enema procedure in Enemas in FAQs.

HEART DISEASE

Dr. Campbell-McBride advocates eating animal fats and cholesterol-rich foods. What about heart disease?

To understand fully how and why heart disease develops please read my book, "Put your heart in your mouth! What really is heart disease and what we can do to prevent and even reverse it." The idea of fats and cholesterol-rich foods "causing" heart disease and other manifestations of atherosclerosis stems from an infamous ***Diet-Heart Hypothesis***, first proposed in 1953. Since then the science and clinical experience has proven this hypothesis to be completely wrong. However, since 1953 a large political and commercial machine has been built based on this hypothesis: these powers do their best to keep the mistaken diet-heart hypothesis alive for as long as possible. It has been proven that natural animal fats, dairy fats, eggs, fresh fish and other natural sources of cholesterol have nothing to do with heart disease and are essential to health. It has also been proven that all artificial fats vigorously promoted to the population, such as all cooking and vegetable oils, margarines, butter replacements and other processed fats cause heart disease, cancer, diabetes, psychiatric and neurological disease and many other health problems. GAPS patients require a lot of natural fats and natural cholesterol in their diet in order to restore their brain function and immune function.

In a person who has atherosclerosis will the GAPS Diet reverse it? In other words, will the plaque that is already formed in the arteries ever be removed by the diet? Or the diet will only prevent more plaque in the future?

To understand the full picture of atherosclerosis please read my book *Put Your Heart In Your Mouth*. The atherosclerotic plaque is like a scab on top of a damaged area inside your blood vessel. When the wound underneath the scab heals the scab is removed naturally. Our bodies constantly create plaque and remove it during all of our lives, it is a normal process. If you follow a diet and life-style which keeps you healthy and your immune system strong, this process will go normally and you don't need to even know about it.

HERNIA

Can the GAPS Diet help heal a hiatal hernia (it seems in England this is hiatus hernia)? Do you have any additional suggestions for healing one?

People with this condition have an overgrowth of pathogens in the stomach, which produce gas. This gas accumulates in the upper part of the stomach, stretching it. At the same time the toxins produced by these parasites paralyse the muscles in the wall of the stomach (including the sphincter muscle which separates the oesophagus from the stomach), causing reflux and hiatus hernia. You need to work on the GAPS Introduction Diet slowly and patiently, and you need to clear out parasites. To start with I would try diatomaceous earth: start from ½ a teaspoon at bedtime and slowly increase the dose to about a tablespoon (for an adult) before every meal and at bedtime. Also please read the section on worms in the FAQs.

HOMEOPATHIC

Are homeopathic meds allowed on GAPS?

Homeopathy combines with GAPS very well and I recommend it. Homeopathic remedies can help you to get through die-off easier and to overcome many stubborn problems.

My family is currently on the GAPS diet and we would like to avoid standard over-the-counter medicines. Are there any homeopathic remedies that you find particularly helpful for GAPS patients?

I have no training in homeopathy, so I refer people to qualified homeopaths. Homeopathy is a wonderful method of healing and can be very effective. But it is a large and complex science and requires serious training.

As a homoeopath and Doula I would like to know what you think the effect of being born under water may have on a child's gut flora?

It should not have any particular effect. The child acquires its gut flora from the mother as the child goes through the birth canal. So, the vaginal flora of the woman becomes the gut flora of her baby. The vaginal flora comes from the woman's gut; so that is how the mother passes her gut flora (hopefully healthy) to the child. What happens in the next 20 or so days also plays a crucial role: breastfeeding will strengthen the beneficial gut flora in the child; absence of antibiotics, other drugs and vaccinations are also very important for the healthy gut flora to get established.

ILLNESS & MEDICATIONS

Can you shed some light on the cause of tonsillitis, specifically food lodging in the surface pockets and the cause?

Tonsillitis is caused by processed carbohydrates, usually made from flour and sugar; they fill up the deep recesses in the tonsils where pathogenic flora grows on them causing inflammation. When you stop consuming processed carbohydrates and populate your throat with beneficial flora tonsillitis will go away. To populate your throat with good bacteria finish every meal with a mouthful of homemade kefir or whey, so they remain in your throat for the period between the meals. Alternatively you can open a capsule or a commercial probiotic on your tongue. Make sure to do this as a last thing before bed as well.

Is albendazole as effective as Vermox? Since I can't get Vermox in the US anymore what do you suggest for roundworm treatment?

Yes, it is effective and is stronger in some cases. But it has serious side effects and needs to be taken under medical supervision. Try to take diatomaceous earth to start with and anti-worm herbs, described in the section Worms and Parasites in the FAQs.

What should I do if I get a "tummy bug" while on the diet?

If you or your child gets a "tummy bug" or any other kind of diarrhea remove all nuts, raw vegetables and raw fruit out of the diet. Stay on a low fiber diet: meat stock, meats, fish, eggs, fermented dairy and cooked vegetables (skinned, de-seeded and well cooked with meats as soups and stews) and cooked fruit until diarrhea completely clears. After stools stay normal for a week at least, re-introduce raw fruit and vegetables slowly, one at a time and starting from small amounts.

Do you have experience in healing people with antibiotic damage from cipro or other fluoroquinolones? A new press release from Harvard detailed that this class of drugs cause mitochondrial dysfunction at the cellular level. In fact the FDA just upgraded

the warning on these drugs. To what extent can the body heal when the mitochondria are so badly damaged?

Human body can heal anything! It may take a long time but if you persevere and trust your body it will heal. Many toxins including many drugs (not only antibiotics) damage mitochondria. Many toxins produced by abnormal gut flora damage mitochondria. Toxic metals and other environmental toxins do the same. Electro-magnetic pollution also does that. Fear, if it is a prevailing emotion in a person, can damage mitochondria. To achieve any healing it is essential to have a positive frame of mind! Focus on recovering (a positive target!) rather than on possible obstacles to your healing (negative!), and your body will do the rest.

Do OTC (Over the Counter) medications for cough, cold, flu and fever have a negative effect on the digestive system? What do you recommend parents give their children for these conditions?

Over the counter drugs for colds do have a negative effect on the digestive system and the immune system. Apart from the drug itself they contain sweeteners, flavours, fillers, binders and other ingredients, which will do you or your child no good. What do I recommend instead? I cover this subject in the chapter on ear infections in the GAPS book - I recommend plain aspirin. Aspirin is one the safest medications known to man. However, in the last few decades the pharmaceutical patent has run out on aspirin, so it became unprofitable for the manufacturers. So, they needed to replace it with new drugs which have fresh patent (paracetamol, ibuprofen, etc.). In order to convince the public and the medical profession to replace aspirin (one of the most trusted and proven medications on Earth) with their new drugs, they had to vilify aspirin. So aspirin was attached to a very rare condition with a scary list of symptoms, called Reye's syndrome: the symptoms range from vomiting and neurological impairment to liver damage. Reye's syndrome was first described as a consequence of a severe viral infection in malnourished children. Apart from viruses a long list of chemicals can cause this condition: pesticides and insecticides, aflatoxin, alcohol, emulsifiers, tetracyclines, valproate, warfarin, isopropyl alcohol, pteridines, hypoglycine and other chemicals, widely present in our personal care products, domestic cleaning products, pharmaceutical drugs and food. The association of Reye's syndrome with aspirin is dubious to say the least and has been criticised by many experts at the time. But because aspirin has become unprofitable, the pharmaceutical industry used whatever little evidence they had to withdraw aspirin from use in children, while in adults the use of it now comes with dire warnings in large print; and every pharmacist selling aspirin has been instructed to question the buyer about how much they buy and for what use. The drugs which replaced aspirin are far more dangerous than aspirin can ever be. For example, paracetamol is the most common drug in suicide, as an overdose of it can irrevocably destroy the liver; ibuprofen is known to cause heart attacks and other heart trouble. Aspirin should not be taken on an empty stomach, so I recommend to have some hot meat stock with fermented dairy (sour cream is the best) prior to taking aspirin or with it. For children I recommend getting soluble aspirin (the usual dose is a tiny tablet of 75mg);

dissolve one tablet in some chamomile tea with a bit of honey. Give some of this tea to your child fairly hot from a teaspoon; in small children a few teaspoons can be enough to reduce high temperature and make the child feel better. Alternatively, you can dissolve aspirin in a cup of hot chicken stock and give it to your child the same way as the chamomile tea. Keep your child wrapped up warm, let him or her sleep as much as possible, and the cold will vanish quickly.

If you are working with an experienced homeopath, you can get some remedies for colds, which can also be quite effective.

What is our opinion on reducing a fever, especially for children? Can it be counter-productive to do so? I have come across many opinions: to take something as soon as a temperature is noticed or to leave the temperature as it will help fight the infection/virus. What is your opinion on the link between fever-induced seizures and epilepsy?

I cover this question in my book in the chapter on ear infections, p.318 in the second edition. I am familiar with an idea that fever should never be reduced, but do not completely agree with it. I do not recommend reducing fever up to 38°C (100.4°F) as it is the body's way to deal with infection; above that level I recommend to reduce it, because it can trigger febrile seizures and other undesirable complications. Homeopathy has very effective ways of dealing with the fever and the infection. If it is not available, use plain aspirin. Please, read more about aspirin in the "Illness & Medications" section of the FAQs.

I have cystic fibrosis and I was wondering if you have had any success treating patients with this condition? What benefits can I expect to see? Also, I have chronic low-grade fevers that are only suppressed by oral antibiotics (minocycline and bactrum DS combined) or ibuprofen (but not as well as antibiotics). Is it possible these fevers are caused by gut dysbiosis/leaky gut, and not just my lung infection?

I have no experience in treating this condition. However, I would try the GAPS Nutritional Protocol; it would re-balance your immunity and change everything in the body inducing healing.

Fever is one of the healing tools your body uses to protect and repair itself. It is a non-specific response to infection and toxicity; it switches on a myriad of powerful processes in the body which will deal with any infection or a toxin in the best way (in your lungs, in your gut and everywhere else). Every time you get a fever welcome it with open arms; it can be uncomfortable but it paves the way for proper healing. If the temperature is 38°C (100.4°F) and below I would not reduce it; I would let it run for as long as it needs to. If your temperature is higher than 38°C (100.4°F) it is justified to reduce it a bit. In the meantime rest a lot and feed your body well, feed your immune system well with rich meat and bone broths, soups and stews, eggs, fermented dairy and other healing foods. If you don't have severe digestive symptoms start from the Full GAPS Diet and see how you do; in a few months time you may consider to do the GAPS Introduction Diet, which

will bring deeper healing. I recommend working with a GAPS Certified Practitioner for a more detailed guidance.

Do you have any experience with pernicious anemia?

Pernicious anemia is due to vitamin B12 deficiency, which in turn is due to gastritis: the damaged parietal cells in the stomach are unable to produce intrinsic factor necessary for absorption of vitamin B12. Many GAPS people suffer from gastritis and have this problem. It may not be severe enough to have a clinical picture of pernicious anemia but they are deficient in vitamin B12 to various degrees. The damage to parietal cells is usually autoimmune. I am convinced that autoimmunity is born in the gut. GAPS Nutritional Protocol heals the gut, heals the stomach and re-balances immunity. As a result the vitamin B12 status normalizes.

GAPS Diet provides large amounts of vitamin B12. However, in the initial stages, if the pernicious anemia is clinically present, injections of vitamin B12 (or an oral supplement) should be taken. But long-term this problem can be removed by healing the gut.

I was wondering if you had anything to say about the possibility of using the GAPS diet for people with overactive vagus nerves. There seems to be many unexplored connections of problems with vagal tone and such things as IBS, and sometimes these patients are basically told to expect a short life. Can anything be done?

Overactive vagus nerve is just a symptom, a consequence of an imbalance in the autonomic nervous system. Our gut is a huge part of our autonomic nervous system, a commanding and regulating part. By healing your gut you will re-balance your autonomic nervous system and hence your vagus nerve.

Can you give some advice for the GAPS management of Crohn's disease? It is regarding an 11 year old who was on GAPS for almost a year. His stools improved, he gained weight, but then his diarrhoea returned with viral symptoms and after 2 months of being ill with diarrhoea and severe weight loss, he has a new diagnosis of severe Crohn's disease affecting the colon and oesophagus (inflammation and ulcers) following an endoscopy. The previous diagnosis was ulcerative colitis and lactose intolerance.

Yes, viruses can aggravate the situation in the gut. Ulcerative colitis and Crohn's disease are from the same group of inflammatory bowel disorders, the diagnostic label is really not that important.

I recommend going back to the GAPS Introduction Diet and moving very slowly through the stages. Before doing the Introduction Diet you may want to start from a No-Plant diet: only meat stock and bone broth, blend the animal skins and organ meats into the stock, fresh fish and fish stock, goat's kefir and yoghurt and raw eggs. The No-Plant diet has a

good ability to bring inflammation down in the gut quickly and it is perfectly safe – I have children and adults in my clinic who have eaten no plants at all for more than a year with very good results. Once the major digestive problems are gone, try to move into the Introduction Diet.

Have you had any success with treating misophonia (selective sound sensitivity) with the GAPS protocol?

Misophonia is a sensory disorder where the person cannot tolerate normal common sounds in the environment; these sounds can provoke anger or another inappropriate reaction. Apart from not tolerating sounds these people usually have other symptoms of GAPS, such as anxiety, OCD and other various behavioural, social and learning problems. In my opinion misophonia is one of the symptoms of GAPS and should not be identified as a separate disorder. I have seen many patients who have this symptom alongside many other symptoms of GAPS.

Do you have any experience with patients suffering from gastritis type A and the applicability of your therapy?

Gastritis is an inflammation of the stomach, type A refers to the particular area of the stomach – the body/fundus. Type B refers to the upper part of the stomach, called antrum. The typical cause of gastritis is ingesting harmful or irritating substances, such as long-term medications, food additives, processed and denatured foods, alcohol in excess, mercury and other toxins from dental work, and other chemicals. They damage the stomach lining causing inflammation and inviting microbes to join in. H pylori and yeast are typical inhabitants of the stomach (they like to live in an acidic environment), and in the majority of people they cause no trouble. But when the stomach lining gets damaged by chemicals (usually by long-term medication, pain killers in particular) they become active. The natural role of microbes is to clean out chemicals and debris; this cleaning contributes to the inflammation in the stomach with all the typical symptoms of gastritis. If the chemical exposure was brief the whole process takes a few days or a couple of weeks and the stomach gets back to normal. But if the exposure continues on a chronic basis (such as swallowing mercury from amalgam fillings, long-term medication, alcohol abuse, diet dominated by processed foods, etc), the gastritis becomes chronic. Other microbes join in and get deep into the lining of the stomach. Microbes produce their own toxic waste products, some of which have an ability to paralyse the muscles in the stomach wall causing gastro paresis. The sphincter muscle separating the oesophagus from the stomach can also get paralysed, which causes reflux – spilling of the content of the stomach up into the oesophagus and the throat. The microbes in the stomach, yeast in particular, produce excessive gas causing bloating and burping. The immune system of course tries to deal with the situation often adding autoimmunity, which in itself can bring a lot of damage. As a result the damaged stomach lining cannot produce enough acid, the person develops low stomach acidity – hypochlorhydria - which impairs the digestion of food and allows all sorts of parasites through. People with low stomach acid

are prone to worm infestations and other parasites. The healthy stomach produces a substance called an intrinsic factor for proper B12 absorption; in gastritis this function suffers and the person develops B12 deficiency manifesting as anaemia. As a whole it is not a pretty picture, and if allowed to continue for a long time it can lead to stomach cancer.

GAPS Programme is a must for people with all types of chronic gastritis; it is best to start from the GAPS Introduction Diet. It will allow the stomach to clean itself and heal its lining. The autoimmunity will remove itself and then the stomach can heal and regenerate. It is essential to identify the chronic source of damage and remove it: amalgam fillings from your teeth, infected root canals and cavitations (and other dental sources of toxins which you swallow all the time), stop taking pharmaceutical drugs and stop exposure to other damaging chemicals. As the stomach lining is inflamed and sore it is a good idea to avoid spices, particularly hot peppers, and alcohol.

In majority of people just doing the GAPS Introduction Diet brings gastritis to an end, so give it a good amount of time to work (a few months at least). If after a few months the symptoms persist it is a good idea to test for H pylori. If the test is positive I suggest asking your doctor for a prescription of oxytetracycline (500mg 4 times per day for 2 weeks) and bismuth salicylate (about 500mg 4 times per day for 2 weeks) – these are doses for adults. I recommend taking these antibiotics with a glass of water with ½ a teaspoon of bicarbonate of soda dissolved in it. The soda will control yeast growth which always comes with every antibiotic use. This is a time-proven intervention for H pylori. Unfortunately, the standard recommended prescription of the triple antibiotics (clarithromycin, amoxicillin and metronidazole) does not work in many people due to high resistance of H pylori to these drugs. Make sure to take plenty of probiotics and fermented foods between the doses of antibiotics to maintain your gut flora.

I would like to know if fermenting vegetables is safe for people who suffer with UC (ulcerative colitis).

People with UC have to go through the Introduction Diet very slowly and patiently. In my experience about half of them do well on a NO-PLANT Diet for a few months before starting the Intro, just eating meat stock/bone broth, gelatinous meats, eggs and fish, and slowly working on introducing homemade kefir and yoghurt. Your diarrhoea will let you know when you can start introducing plant matter - vegetables (well-cooked to start with as a soup). Sauerkraut (homemade only) is safe for a proportion of UC patients, introduce it when you are ready to try your first vegetables; even then start from the sauerkraut juice only (1 teaspoon per day). Some people seem to manage this juice well from the beginning; the only way to know is to try it. After you have been through the Introduction Diet you may be able to eat all sorts of fermented vegetables, including commercially available ones. There are some excellent UC case studies in the new book *GAPS Stories*, which may give you a lot of insight and inspiration.

INSOMNIA

Is insomnia a common die-off response? Do you have any recommendations for overcoming insomnia?

Many toxins coming from the activity of unhealthy gut flora disrupt our neurotransmitters in the brain. Neurotransmitters are chemicals which brain cells use to communicate with each other, such as serotonin, adrenalin, dopamine, melatonin, endorphins, etc. – there are about a hundred neurotransmitters discovered so far. Die-off releases more toxins than usual and, if a person has a problem with neurotransmitter disruption already, then it will get worse. One of the functions of neurotransmitters is regulation of sleep. Serotonin, GABA and melatonin are the three neurotransmitters connected with sleep and relaxation in particular, and it is a good idea to boost their production with supplements, if insomnia is a problem. To boost serotonin production we need an amino acid 5HTP (5-hydroxytryptophan), for GABA we need taurine and glutamine. These amino acids need co-factors to be converted into neurotransmitters: niacin, vitamin B6, folic acid, biotin, zinc, magnesium, vitamin B1, vitamin B12 and pantothenic acid. There are supplements on the market, which contain all these ingredients with about 100mg of 5HTP, 500mg of glutamine and 500mg of taurine. Always start with a low dose and build gradually; the optimal dose is very individual. In many people just boosting production of serotonin and GABA is enough to remedy insomnia. If it is not enough, then try to add melatonin. Melatonin is produced in the brain at night, however in order to produce it in the dark we need a good dose of light during the day. Spending some time in bright sunlight every day will boost your melatonin production (no sunglasses, as the light needs to reach the brain through the eyes). Supplements of melatonin are available ready made; start from a low dose at bedtime (1-3 mg) and, if it is not making any difference, slowly increase the dose.

INTRODUCTION DIET

Once the Introduction Diet is completed, is there a scenario where one should go back on the GAPS Intro Diet?

Yes, there is, and not just one. People get tummy bugs, travel diarrhea and other infections, which can damage the gut. People have to take antibiotics or other drugs for various reasons, which can throw you back quite a bit. Stressful situations in the family or work can weaken the whole system and bring symptoms back. Going back through the Introduction Diet helps eliminate those problems quickly without any complications.

I have been reading about the GAPS Diet and am considering giving it a try. However, I no longer have a colon and wonder if you would still recommend it. If so what if any changes to the diet would you recommend?

In my clinical experience GAPS Introduction Diet is the best approach for you. People with parts of their digestive system removed do best on the 2nd stage of the GAPS Introduction Diet more or less permanently, venturing outside it only when they feel very well.

How long should you expect to be on the Introduction Diet? Is it harmful to be on it for too long? What should individuals do who find themselves stuck on a particular stage for an extended period of time?

It is very individual how long to stay on the Introduction Diet and how quickly to move through it. Some people get through in a matter of a few weeks, others take months. It depends on the severity of the condition. Some people get through it and feel well on the Full GAPS Diet, then something happens (an infection, a stressful situation or an accident), and the person finds it necessary to go back to the Introduction Diet for a while. As long as plenty of good quality animal protein and fats are consumed and freshly pressed juices, there is no harm in adhering to the Introduction Diet long term. If you find yourself "stuck" on a particular stage, it means that the pathogens in your gut need more than the diet and probiotics. So, it makes sense to explore natural anti-parasitic and anti-fungal/anti-bacterial remedies to bring the pathogens under control. There are many good remedies on the market, such as oregano, olive leaf extract, grapefruit seed extract and herbal mixes. It is important to introduce natural remedies gradually, controlling the die-off reaction; start with one remedy, then add others one by one. Many people find that taking under control worms and other parasites with natural remedies allows them to move on through the Introduction Diet. Some people find relief with mainstream anti-fungal, anti-parasitic and anti-bacterial medications. The trouble is that drugs cannot be taken for long periods of time, as they are toxic and have side effects. If they work, they may provide an immediate relief but, when they are stopped, the problem may come back fairly soon. Natural remedies can be taken for long periods of time without harm, that is why it is a good idea to start with natural remedies, continue taking them through the drug treatment and to follow with the natural remedies when the drug has been stopped.

When should supplements be introduced during the Introduction Diet? Which should be introduced first: probiotics, cod liver oil, fish oil, nut/seed oils?

In the first two stages of the Introduction Diet I recommend not to introduce any supplements, just introduce fermented foods. In a small number of patients no fermented food can be tolerated, so for these patients I recommend introducing a probiotic gradually starting from a tiny dose. From the third stage, if fermented foods have been successfully introduced, you can start introducing the probiotic and the cod liver oil in tiny amounts, gradually increasing the daily dose. When cod liver oil has been introduced (the full dose is taken daily), introduce fish oils. When olive oil is being introduced, you can introduce cold pressed nut/seed oils gradually with meals. For those who started from the Full GAPS Diet, probiotics and cod liver oil can be introduced from the beginning, starting

from a tiny amount and gradually increasing the dose. When cod liver oil has been successfully introduced, start the fish oils and the nut/seed oils.

Some families report vomiting during the Introduction Diet as a die-off reaction. Can you please address this issue and how families should proceed?

Vomiting can be a sign of hypoglycaemia: as we cut out many carbohydrates in a person with an overgrowth of yeast, it is easy for the blood sugar to drop too low. In that case give your child some apple or orange juice and see if it helps. Freshly pressed juice from apple or orange with carrot is best, but if the situation is urgent use a commercial juice. If this measure helps, then use this juice in as small an amount as possible to remedy the nausea and vomiting, when it happens (ice lollies or ice cubes, made in advance from freshly pressed juice, may provide immediate help). In the long run stick to the diet and make sure that your child has plenty of animal fats: they will regulate the blood sugar level. Allow your child to eat often and in small amounts (to graze) to keep the blood sugar steady, rather than insisting on set meal times. As the die-off subsides, so will the nausea and vomiting. Ginger tea is a known remedy for nausea; use it as a drink between meals.

Since starting GAPS Intro 2 weeks ago I have noticed what looks like a fine white powdery substance in my urine. There is not a large quantity, but enough that it's noticeable to me. A few of us on the message board have had this symptom and I'd like to know if it is something I should be concerned about or see my medical doctor for?

It would be a good idea to test your urine, when you notice this powder in it, as it may be a number of things: calcium salts, oxalates, protein complexes or something else. The important thing to observe is how you are feeling: if you feel well then probably there is no need to worry. GAPS Introduction Diet initiates a clearout of toxins from the body; these toxins can precipitate various salts in urine and fall out as a white-looking powder.

How do patients progress if they only tolerate a very limited diet?

Food intolerances are due to damaged gut lining. If you cannot introduce a particular food, it means that your gut lining is not ready for it. Please read **Food Allergy** (Available in the Resources section) to learn more. It makes sense to look at taking pathogens under control (please look at other FAQs on this), because these pathogens may be interfering with the healing process in the gut.

Why is carrot juice the first juice we need to tolerate before moving forward with juicing? When can one introduce citrus juices?

Carrot juice is the basis of all juices - it is very therapeutic, gentle on the gut lining and tasty. That is why it is introduced first. Orange or grapefruit juice is quite acid and has other irritating substances in it, that is why I recommend to introduce it on the Full GAPS Diet, when quite a bit of healing has happened in the gut. A bit of fresh lemon squeezed

into a glass of water is usually tolerated well and can be introduced earlier, as well as a little of raw cider vinegar added to water. Just make sure that diarrhoea has cleared first.

Ketosis and GAPS. Is it induced via GAPS Introduction diet? Is it a danger in doing GAPS Intro? Is it one and the same as die-off? How to prevent it?

There is a popular myth that sugar is the main source of energy in the body; this myth has been created by commercial companies selling sugary foods and drinks, and by funded by them “research”. Mainstream nutritional institutions are funded by food industry, so they are the main propagators of this myth. Here is the truth: vast majority of all cells in the body use fats as a source of energy: your heart, your muscles, your inner organs, etc. Whenever fat is used as a source of energy ketone bodies are created. There is no need to fear ketosis, as we all have it now and then almost every day (it is very different from diabetic ketosis, induced by non-functioning pancreas). It is possible that during the Introduction diet there will be periods of ketosis, but don't worry about it as normally you would not feel it at all. Eating vegetables will prevent ketosis. Ketosis is not the same as die-off.

How long should it take on the GAPS diet for under eye darkness to disappear? If one has completed the Introduction diet and darkness is still there is this a sign that something was not done correctly?

Dark circles around eyes is a sign of toxicity and allergy. GAPS programme is a journey, some people find that they get better quickly, others need more time and other interventions, such as chelation of heavy metals, neutralisation of allergies, etc. Consider GAPS programme as a basis for your recovery, a foundation of your health. For many people GAPS is all it takes to get well. For others, after building the foundation, they have to build other structures on top of it to get completely well.

How long should you expect to be on the diet before you notice improvements? I know this can be very individual but is there an amount of time where if you have not seen any improvements the diet might not be right for you?

This is very individual and your choice. Give the diet 6 months, if you do not see anything happening, try to stop it. Some of my patients found that when they stopped the diet, they realised that it was working!

In an earlier question you said that if a person is stuck in the intro stage, then perhaps a natural anti-parasitic/anti-bacterial remedy may be helpful. Could you give a suggestion about how a person could begin doing this? Are any of these remedies safe for young children?

There are many anti-parasitic natural supplements on the market which can help: garlic extract, olive leaf extract, oregano oil and grapefruit seed extract. The first supplement, which I find useful, is garlic extract. Always start from a small dose and gradually

increasing it. The dose can be increased to quite large amounts: some adults take 5-10 grams every day, for a child 500mg – 1 gram with food is usually enough. Once garlic is well tolerated, olive leaf extract can be added, starting from a small dose and gradually increasing to 1-2 grams twice a day for adults; for children 500mg twice a day is usually enough. Once garlic and olive leaf extracts are well tolerated, oregano oil can be added, starting from a small dose (1-5 drops) per day and gradually increasing to 30-40 drops for adults and 5-10 drops for children. The last supplement to add is grapefruit seed extract, starting from 1-2 drops a day and gradually increasing to a dose that is tolerated: adults manage to get up to 10 drops 2-3 times per day, for children 4-5 drops may be enough. There are many brands of these supplements on the market, try to find good quality. Some herbal preparations include MSM (Methyl Sulphonyl Methane), which is a good source of sulphur, essential for detoxification and controlling parasites in the body. If the herbal preparation does not include MSM, you may want to add it to the mix. Start from a low dose and gradually increase to the level of 1-2 grams per day for children and 4-5 grams per day for adults.

I know you say we should not skip introduction, but can you clarify for us if it is OK to do the Full GAPS Diet first and then do Intro after a few weeks of transitioning the body to lower carbohydrates, lower fibre, higher fats and the addition of probiotics?

Absolutely! Some people start from the Full GAPS Diet, and then later on, if there is a need, they do the Introduction Diet. Some people, particularly those without severe digestive symptoms, never do the Introduction Diet; they get well with the Full GAPS Diet alone. It is very individual. Generally, the Introduction Diet should be followed if there is diarrhoea, other serious digestive problems and food intolerances. Children and adults with severe learning disabilities do well on the Introduction Diet. But if we have an adult without much digestive trouble, and who finds it difficult to change their diet at all, they often start from the Full GAPS Diet. An adult with chronic persistent constipation usually does well starting from the Full GAPS Diet; later on many of them find it very useful to do the Introduction Diet, when they are mentally ready for it.

After 13 months in Intro, I still cannot digest fat and have problems with carbs. Fat maldigestion contributes to my daily heartburn and SIBO (Small Intestinal Bacterial Overgrowth) side effects: fibre gives me bloating. I know low carb-low fat is an unsustainable diet long-term, and I am underweight, and often hungry. There is plenty I cannot eat yet: garlic, onion, good fats, nuts, and fruit. I eat meats, fish, broth soups with zucchini and juices. I am taking herbal anti-parasite remedies and have started coffee/whey enemas although I don't suffer from constipation. Any other ideas?

Please, look at questions in the section *Liver*. Poor fat digestion is usually due to bile stones. You need to introduce GAPS milkshakes, coffee enemas and use Ox bile supplements with your meals. Introduce fats gradually, starting from small amounts per meal.

GAPS Milkshake: make a juice from a mixture of fruit and vegetables, add 1-2 raw eggs (both the yolk and the white) and a large dollop of raw sour cream (if sour cream was not introduced yet, use coconut oil) and whisk the whole thing. It will turn into a delicious 'milkshake'. The fats and protein balance the sugars in the juice, keeping the blood sugar under control. The juices of apple, celery, beetroot and other vegetables soften the gallbladder stones over time, while the fat provides gentle stimulation to the liver to squeeze these stones out. Start this milkshake from a few tablespoons per day and gradually increase to 2 glasses per day: first thing in the morning on an empty stomach and middle of afternoon.

I just read on the FAQs that only fermented juice should be taken during stages one and two. Is this for all patients or only those who were not previously taking probiotics or cod liver oil? Should we stop those supplements until stage 3 or just continue since we are already doing them?

You probably refer to the juice of the sauerkraut, which we introduce in the Introduction diet. If you have already been taking probiotics and cod liver oil prior to GAPS, continue taking them; your body has already adapted to them, so your starting position is stronger than in a person who never had them before.

Can I begin the Introduction Diet with H pylori? Will this alone begin to cure it or do I need to do something else?

Yes! In my experience majority of people remove symptoms related to H pylori by following the GAPS Nutritional Protocol. In a small percent the symptoms may persist and at that stage we can try to deal with it.

H pylori is present in the stomach of the majority of people on this planet, and about 80% of them have healthy stomachs. So, there is more to this microbe than we know currently. It is possible that in the future H pylori will be qualified as a normal inhabitant of the human stomach. H pylori is always accompanied by yeast in the stomach and it appears that they feed off each other. So, in many people symptoms of gastritis, reflux and indigestion are due to the overgrowth of yeast rather than H pylori. Only your own body will know how to bring these microbes into balance, so follow the diet first for a 1-1.5 years before considering any other intervention.

I'm in stage 3 in the Intro Diet and I'm still suffering from bloating, even after having just broth. Should I push through it for a while longer or change meat broth? I've tried chicken, turkey, bone marrow, short rib and a combo of all in my broths. I still have bloating issues.

Push through it. The bloating is due to yeast activity in your digestive system. The yeast is there because it is dealing with particular toxins, which only yeast can neutralize, for example mercury. No matter how much you try to bring the yeast down, it will be there until the toxins are gone, which can take a long time. In the meantime make sure to

remove all dental amalgam fillings or any other extraneous sources of toxins (particularly toxic metals) in your body. Your body has enough to deal with clearing the toxins produced by the abnormal gut flora. Garlic enemas and enemas with bicarbonate of soda will help. For a garlic enema crush 2-3 cloves of fresh garlic into 1 liter of water, strain and use in enema. For the bicarbonate of soda enema add 1 teaspoon of it per liter of water.

At what stage is coconut oil introduced?

It depends on the severity of the condition, try it at any stage and see how you feel. Coconut oil has some powerful anti-microbial substances, which can cause die-off.

JUICING

You recommend carrot juice with cod liver oil supplement for constipation. Carrots are very high in sugar and make my sugar levels bounce off the walls. Do you have any other suggestion for vegetable juice for those with diabetes?

I am not sure where you found this recommendation. Please look in the section Constipation in FAQs on my website, gaps.me for my recommendations. For a person with diabetes when you want to start juicing start from green juices only with some lemon added, avoiding fruit and sweet vegetables, such as carrot. In a few months time you may find that you can start adding carrot.

In the GAPS book you recommend juicing greens such as kale, spinach and cabbage among other vegetables. However, it is my understanding that some vegetables contain anti-nutrients, and should thus be primarily consumed cooked (for example cooking spinach reduces oxalate content). How is juicing such vegetables beneficial?

All foods contain anti-nutrients, plant and animal. The beautiful thing is that spinach is not made from oxalates only: it contains hundreds of other substances in a natural balance. Some of these substances are known to prevent cancer and to clean the liver; if you cook spinach these substances will be destroyed. We don't make juice just from spinach either, we add other fruit and vegetables, and we can also add raw eggs and sour cream to the juice to balance it further. It is all a matter of balance and personal sensitivity. If a person has particular sensitivity to oxalates (burning urination for example), then oxalate-containing foods need to be avoided until the gut heals enough to be able to handle them. But if there is no such sensitivity then there is no need to be afraid of spinach or cabbage or broccoli or any other food just because some anti-nutrient has been found there.

I find it too expensive at this point to be juicing for six people on the diet. Is there any benefit in using non-organic veggies for juicing or would it be better to skip the juicing

because of the pesticides, etc? I know organics are preferable, but until the summer, we can't afford the expense.

Organic produce in our supermarkets is expensive! But that is not the only problem with it: most of this produce comes from large industrial farms, which use exhausted soils. As a result their organic fruit and vegetables may not contain pesticides, but they do not contain much useful nutrition either. Non-organic fruit and vegetables in the supermarkets are not as expensive as the organic ones, but they are devoid of nutrition and full of pesticides, which in reality makes them really expensive for your body. Supermarkets are not a good place to buy fruit and vegetables. It is best to find local produce, grown in people's private gardens, allotments and small farms. They may not be organic (though these producers do not use much in a way of chemicals), but they will be rich in minerals and other nutrients; and the price will be much lower. Don't worry if you are not juicing at the moment. Perhaps, next summer you can find good local producers and stock up with inexpensive, but nutrient-dense local fruit and vegetables.

KETOSIS

Ketosis and GAPS. Is it induced via GAPS Introduction diet? Is it a danger in doing GAPS Intro? Is it one and the same as die-off? How to prevent it?

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I have read: 'dietary carbs can feed candida in the gut, but they also feed competing probiotic bacteria and promote intestinal barrier integrity and immune function, and thus their effect on the gut flora is complex. More importantly, ketosis promotes systemic invasion by candida and glucose is needed for the immune defence to candida, so a moderate carb intake is helpful, as candida is an effective intra-cellular pathogen that can flourish systemically.' This author recommendation is to eat 'safe starches', which he says are white rice and sweet potatoes. Please, comment.

Starch is a very specific molecule and it does not exist in Nature in pure form. Grains are not 'starches', as they contain hundreds of other substances. Rice, other grains and potatoes contain many anti-nutrients which damage the gut wall. They also cross-react with a gliadin antibody for celiac disease, initiating an autoimmune attack on the gut

wall, joints and other connective tissue in the body. You will get plenty of carbohydrates from vegetables and fruit allowed on the GAPS Diet.

Candida is not the only pathogen in the gut; it is always in company with thousands of other pathogenic microbes. GAPS Protocol deals with all of them at once, not just candida.

GAPS diet generally is not a ketogenic diet. Every person needs to find the right individual balance between meats and vegetables. If you are predominantly malnourished you need to have more building foods, which are animal foods. If you are predominantly toxic, then you need to eat more vegetables for a while. However, there is no need to fear ketosis. I have quite a few patients who opted for having no plant matter at all and are doing very well on purely animal food diet. Ketosis is a natural state for these people. Generally, we all go through periods of ketosis every day; natural ketosis is quite normal and is not dangerous. Diabetic ketosis is a very different condition and is dangerous, but here we are not talking about it.

There are many ‘scientific’ – sounding speculations on candida, ketosis and diets around. Try to focus on what feels right for you: your body has much more wisdom than any science.

KIDNEYS

Would a patient with compromised kidney function have to do anything differently in the GAPS diet? Traditional recommendations for poor kidney function are to reduce protein, potassium and salt consumption: do you agree with those for a GAPS patient?

The most common reason for damaged kidney function is improperly digested proteins being filtered through the kidneys. Where do they come from? From the gut: when the gut wall is damaged and porous proteins in food do not get the chance to be broken down properly before they absorb. When the body tries to eliminate these proteins through urine, they block up the kidneys causing nephropathy and kidney failure. Our mainstream medicine knows that it is protein that is damaging the kidneys, so they recommend reducing protein-rich foods. But that does not address the real problem – the damaged gut wall. GAPS Introduction Diet will heal the gut wall; the protein in food will start digesting properly. So, when it is absorbed it will do no damage to kidneys or any other tissue in the body. In the initial stages focus on gelatinous meats rather than muscle meats, as they heal the gut lining quicker.

Kidneys have a good ability to re-generate. As soon as the gut wall will start healing and improperly digested proteins will stop coming to the kidneys, they will heal themselves. Damaged kidneys lose potassium and other minerals. When they heal they will stop doing that.

You do not need to remove salt, but what you absolutely must do is to use only NATURAL UNPROCESSED salt, such as Himalayan Crystal salt or Celtic salt. Make

sure not to eat any processed foods at all as they are full of processed salt, which is unhealthy for anybody, particularly for a person with damaged kidneys.

LIVER & GALLBLADDER

What liver support would you recommend for GAPS patients? Many patients report struggling with congested / toxic livers adding to digestive problems such as constipation and fat digestion.

Please look at the question on gallstones. GAPS people usually have lots of gallstones blocking the bile ducts. Without good flow of the bile we cannot digest fats. Three measures over time will remove the stones and restore normal bile flow. Juicing is one, particularly apple, celery and green juices. Adding some herbs to your juices will support the liver: fresh dandelion leaves, roots and flowers, burdock leaves and a little ginger root. Coffee enemas are the number two: this procedure makes the liver cleanse itself and flush the toxins out through the bile, removing the stones at the same time. Third - good amounts of fat in every meal: the fat stimulates the bile flow and removes the bile stones on a daily basis. If initially you are unable to digest fat, start from a small amount with every meal and gradually increase: use both animal fats and cold pressed oils. In the initial stages supplementing Ox Bile with every meal will help you to digest fats (you should be able to find supplements of ox bile with some additional digestive enzymes from most multi-supplement companies). There are herbal supplements for liver support on the market containing milk thistle, dandelion, phyllanthus, liquorice, burdock and other herbs. It is important to complete the Introduction Diet first before trying these supplements; it is also very important to find a supplier of good quality organic herbs to make sure that the herbs have not been grown in areas contaminated with lead or other industrial pollution.

Could you explain "animal fat causes glycogen to be produced"?

You mean glucagon, not glycogen. Glucagon is a hormone produced by the liver in response to consumption of fat and animal protein. This hormone works in opposition to insulin. Insulin is the 'master fat-storage' hormone in the body, as long as you have too much insulin in your blood you will store everything you eat as fat. Insulin dominance in the body is the cause of obesity, diabetes, heart disease, cancer and many other modern maladies. Why do people have insulin dominance? Because of consuming processed carbohydrates: bread (including sandwiches), breakfast cereals, sugar, soft drinks, snacks and sweets, etc. These carbohydrates stimulate production of too much insulin. In Nature everything works as a union of opposites: to oppose insulin our bodies produce glucagon. Glucagon is a 'master fat-burning' hormone, it mobilizes your own body fat to be used for energy production. When your body starts producing glucagon you lose excess weight, your body assumes its natural healthy shape, and the risks of diabetes, heart disease and cancer are removed. To produce glucagon you need to eat plenty of animal fat and protein: meat, fish, eggs and good quality dairy products.

After being on the GAPS diet for a year I still occasionally get a wave of nausea or a sharp pain in the lower tummy area usually just before passing stool. Do you know what is causing this?

It may be a good idea to deal with worms at this stage. Please, read about this in the *Worms and Parasites* section in FAQs. Nausea is often due to bile stones impairing your bile flow (which in turn are often caused by worms). Taking GAPS Milkshakes regularly will help to remove the stones, please read about this in *Liver and Gallstones* in FAQs.

What effect does caustic bile have on inflammation in the gut? How does one manage a situation whereby one cannot tolerate any die-off or foods or supplements that have an impact on detox pathways (sulphur, amines, salicylates, glutamate, etc), when their liver is jammed and thus struggle to do any gut healing? Conversely if the liver and gallbladder are supported, such that bile flow is improved, how can one avoid or reduce the abrasive nature on the gut of toxic bile?

Please, view the other FAQs on liver support, these will explain to you why your liver may not be functioning well, and what to do in this situation. If the person is eating enough fats with meals, the bile will be handled properly by the gut, even if toxins are present in the bile.

I am wondering how well patients without a gallbladder do on the GAPS diet?

It is important to introduce fats in the diet gradually and take Ox bile supplement with every meal for a period of time, until you feel that you can digest fat without it. It is more difficult for people without the gallbladder to introduce fats, but over time your liver adapts to working without the gallbladder.

What does it mean to have fat in stools and how should one proceed with the diet?

Fat in stools means that not enough bile is being released from the gallbladder to emulsify fats. The most common reason in GAPS patients is gallstones. A gallstone is a clump of infection or a fragment of a worm, coated by bile: this is a defense reaction the liver has, when pathogens get into the bile ducts. Bile stones form all of our lives, and in the initial stages they are small and soft and pass easily through the bile ducts into the duodenum every time we eat fats. Once in the duodenum, the stones go all away to the bowel and get eliminated in stool. If the person has been eating processed carbohydrates and low fat foods for a while, then the liver does not get enough stimulation to empty the bile into the duodenum, so the bile stones stay in the bile ducts too long and become calcified. As the stones accumulate calcium salts on their surface, they get larger and their surface becomes hard and rough, so they cannot be easily passed through the bile ducts (they get stuck). When enough bile ducts are obstructed by stones, the bile flow gets impaired; hence the person cannot digest fats very well. GAPS diet is rich in fats, which stimulate bile production and excretion into the duodenum at every meal. It may

take time for your liver to get into full gear, but it will do so. When juicing is introduced, the active substances in juices dissolve calcium salts in the stones and make them softer, so they can be eliminated from the bile ducts with the next fatty meal. It takes time, but in the majority of patients this situation gets resolved naturally, without any special measures (particularly in children). In some severe adult cases following Dr. Hulda Clark's Liver Cleanse Protocol may help to eliminate gallstones.

After 13 months in Intro, I still cannot digest fat and have problems with carbs. Fat maldigestion contributes to my daily heartburn and SIBO (Small Intestinal Bacterial Overgrowth) side effects: fibre gives me bloating. I know low carb-low fat is an unsustainable diet long-term, and I am underweight, and often hungry. There is plenty I cannot eat yet: garlic, onion, good fats, nuts, and fruit. I eat meats, fish, broth soups with zucchini and juices. I am taking herbal anti-parasite remedies and have started coffee/whey enemas although I don't suffer from constipation. Any other ideas?

Please, look at questions in the section *Liver*. Poor fat digestion is usually due to bile stones. You need to introduce GAPS milkshakes, coffee enemas and use Ox bile supplements with your meals. Introduce fats gradually, starting from small amounts per meal.

GAPS Milkshake: make a juice from a mixture of fruit and vegetables, add 1-2 raw eggs (both the yolk and the white) and a large dollop of raw sour cream (if sour cream was not introduced yet, use coconut oil) and whisk the whole thing. It will turn into a delicious 'milkshake'. The fats and protein balance the sugars in the juice, keeping the blood sugar under control. The juices of apple, celery, beetroot and other vegetables soften the gallbladder stones over time, while the fat provides gentle stimulation to the liver to squeeze these stones out. Start this milkshake from a few tablespoons per day and gradually increase to 2 glasses per day: first thing in the morning on an empty stomach and middle of afternoon.

When I do the soups and stocks as per the diet I get a build up of fat in my mouth with this continued taste. I have tried digestive enzymes but they absolutely hate me. Any suggestions?

It is likely that your bile ducts in the liver are blocked with stones. Work on GAPS milkshakes, they will remedy this situation long term. In the meantime take ox bile supplement (often contains some herbs with it, such as black radish and beetroot) with every meal, and start your meal from 1/3 a cup of fresh cabbage juice, cabbage salad or sauerkraut. This situation is temporary, it will resolve itself.

What is your advice for those of us who suffer from nausea after eating moderate amounts of fat with meals? What causes this and what are the immediate and long-term remedies?

Please, read the sections on gallstones and liver. When you are unable to release bile for fat digestion, you may feel nauseous and find it difficult to digest fats. Take ox bile with your meals for a while and introduce fats gradually. Eating fermented vegetables with your meals, particularly at the beginning of your meals will also help.

Can a GAPS gut or detoxification measures of GAPS treatment, or other aspects of the GAPS Program be responsible for elevated liver enzymes (particularly GGT)? If yes, how high should liver enzymes generally be allowed to increase above normal range before action is taken to limit them? Finally, if any part of the GAPS Program may be contributing to elevated liver enzymes, can you suggest anything to limit how high they climb?

A person going through the GAPS Nutritional Protocol often has to go through the die-off and detox stages, when the body has to clear out many toxins. This clearing out is largely accomplished by the liver producing certain detoxifying enzymes; we can test these enzymes in the blood. As the amounts of toxins-to-clear-out grow, so grow the levels of enzymes the liver has to produce. Gamma-glutamyltransferase (GGT or 'gamma GT') is one of these liver enzymes; amongst other toxins it normally deals with alcohol in the body. There is always yeast overgrowth in a GAPS person (yeasts produce alcohol) and the die-off will manifest itself with more alcohol released, hence a rise in the GGT level. So, this is to be expected and is a good sign that your liver is working well and responding properly to the situation.

Testing for liver enzymes is not reliable, the so-called 'normal' levels can vary quite widely depending on gender, age, the state of the person, the method used and even the laboratory used. Don't worry about testing and just listen to your body: if the die-off gets too much for it, it will send you a signal of severe worsening of your usual symptoms. So, this would be the time to slow down with die-off and let your body catch up, regardless of how high or low your liver enzymes are.

LYME DISEASE

Many people are coming to the GAPS diet with or after having been treated for Lyme disease. What are your recommendations for these individuals?

I recommend that you follow the Introduction Diet. If you find it too difficult, then implement the Full GAPS Diet first; you may be able to do the Intro diet later. The standard treatment for Lyme disease is antibiotics, lots of them. So, the gut flora in these people is damaged and needs restoring.

Is the GAPS diet enough to eradicate Lyme disease or do we need to do something else to deal with this infection?

Lyme disease is fashionable at the moment, as our medicine goes through fashions all the time; all sorts of problems are blamed on Lyme disease today.

Lyme disease is caused by bacteria of the family *Borrelia* which are transmitted by ticks. The natural hosts for ticks are wild animals, such as deer, squirrels, chipmunks, rabbits and other animals. *Borrelia* has been in existence for a long time, possibly longer than us, humans. Yet Lyme disease has become so common only recently despite the fact that contact with wild animals is very minimal in our modern urbanised populations. So, what happened? A very big thing happened in the recent few decades: our immune systems got compromised by our modern life-styles and the environment which we, humans, have created. A good demonstration of this is what is happening to the bee population in the industrialised world: the bees are dying out. They are dying out from a couple of opportunistic infections, which they used to be resistant to only a few decades ago. Why? Because their immunity has been compromised by all the spraying of the countryside done by our modern agriculture. We, humans, are no different. When your immune system is not working properly, you become susceptible to all sorts of infections, which used to be harmless.

People who suffer from chronic fatigue, fibromyalgia, peripheral neuropathy, autoimmunity and other degenerative conditions, recently blamed on Lyme disease, are immune-compromised. The fact that *Borrelia* has been discovered by our science does not mean that it is the answer to these problems: when the immune system is disabled, all sorts of microbes can be at work, many of which we have not even discovered yet. And indeed antibiotic treatment for *Borrelia* does not eradicate chronic degenerative conditions, despite the fact that tests may show that this bacterium is gone. Very powerful antibiotics are used to treat Lyme disease, often intravenously and long-term. Antibiotics are not harmless! Healthy bodily flora is the most essential factor in keeping your immunity healthy. Antibiotics will destroy that factor very effectively, making your immune system even more disabled, making you even more vulnerable to *Borrelia* or any other pathogen.

So, if you suffer from a chronic degenerative condition and had a positive test for Lyme disease, don't rush to have antibiotics. What you need to rush to do is to restore your immune system. Number one intervention is the food you eat! If you have digestive symptoms, follow the GAPS Nutritional Protocol. If your digestion is OK, follow the Weston A Price-type diet. As your immune system starts working again, it will deal with *Borrelia* and lots of other microbes, which you don't even need to know about. A good percent of people, who test positive for *Borrelia*, have no symptoms and are healthy and well. Why? Because their immune systems are working properly! And make no mistake: well-functioning human immune system is infinitely cleverer, than any doctor or scientist!

The only exception is a fresh *Borrelia* infection from a recent tick bite (which was tested and identified as such), which manifested with typical symptoms of a fresh *Borrelia* infection: erythema migrans (a typical circular skin rash) in combination with flu-like symptoms of fever, malaise and aching joints and muscles. A course of antibiotics in this situation is sensible. While taking antibiotics take all the essential steps to boost your

immunity with diet and protect your gut flora with a good quality probiotic. Following the GAPS diet or the WAPF-type diet will restore your immune system long-term.

The question about eradicating *Borrelia*: why eradicate? If somebody did a study of testing everybody for this parasite, they may find that the majority of the population has it, just as the majority of the population has *H pylori* in their stomachs. We do know that about 70-80% of people who test positive for *H pylori* are healthy and have no symptoms. Should we try to eradicate *H pylori* in all of them, exposing them to powerful antibiotics? Absolutely not! Vast majority of microbes on this planet are not our enemies, they are our friends! What every one of us has to do is to find a balance, a harmony between the myriad of microbes living on us and inside us and our immune systems. So, focus on feeding, nourishing and nurturing your immune system, rather than killing, attacking or eradicating anything.

NAUSEA & VOMITTING

What is your advice for those of us who suffer from nausea after eating moderate amounts of fat with meals? What causes this and what are the immediate and long-term remedies?

Please, read the sections on gallstones and liver. When you are unable to release bile for fat digestion, you may feel nauseous and find it difficult to digest fats. Take ox bile with your meals for a while and introduce fats gradually. Eating fermented vegetables with your meals, particularly at the beginning of your meals will also help.

NUTRITION

Will the GAPS diet provide all the necessary minerals needed, even for those with proven or suspected mineral deficiencies?

Mineral metabolism is complicated: it is not just a matter of intake of minerals. To be absorbed, minerals require acids, which are produced by healthy gut flora. To be utilised appropriately by the body, minerals require fat soluble vitamins A, D and K. If a person is deficient in those vitamins and suffers from gut dysbiosis, then no matter how many mineral supplements he or she takes, and no matter how rich in minerals the diet is, those minerals will not be utilised appropriately. Another big issue is that the body accepts organic minerals only in complex with protein and amino acids. Many mineral supplements supply inorganic minerals, which the body cannot utilise. Mineral water is not a good source of minerals either, as it contains inorganic minerals and in tiny amounts. The best source of minerals is natural good quality food: meats, organ meats in particular, fish, eggs, fermented dairy, fermented or cooked vegetables and fruit. Fresh food provides minerals in an organic form packaged with amino acids and, in the case of animal foods, fat soluble vitamins. Just make sure to buy good quality foods: organically grown and from free-range animals, raised on natural pasture. The GAPS program works at normalizing the gut flora, so it can assist in absorption of minerals, and the GAPS diet

provides ample amounts of fat soluble vitamins to process them properly. Some people find it helpful to supplement particular minerals for a while, following testing. An excellent natural balanced source of all minerals and trace elements is seaweed. It is illegal on SCD, on GAPS I allow it to be introduced once severe digestive symptoms are gone. [Seagreens seaweed products are the only certified organic seaweed products available. Please go to the GAPSdiet online store for more information.]

Do you have any comments on the science of the blood type diet?

Please, read my article *One man's meat is another man's poison*. It will explain this issue in great detail for you. Also, please look at my reply to a question on metabolic typing in FAQs. Dividing people into groups based on any surrogate measure (genetic background, blood type, sympathetic/parasympathetic, etc) and prescribe to them what they can or cannot eat based on that does not work in my experience. We humans have been travelling and mixing on this planet for a long time, it is hard to find a pure genetic stock in anyone. And strictly speaking we are not dealing with only four blood groups; scientists have identified a very large number of blood groups and subgroups (more than 100 according to some researchers). On top of that a person's blood group apparently can change during an illness: many infections and cancers are known to do that. I trust in Mother Nature, going down to basics (healthy digestion, natural foods), in working with your own body and listening to it.

I've noticed there's no mention of the importance of not combining protein and starchy foods in the same meal. It's well documented that the stress of digesting these foods together is a major source of stress that can cause acid reflux, heartburn and stomach ache. What is your opinion on this?

The whole point of GAPS Diet is to exclude starch! What is there to combine? Almost all fruit and vegetables contain minute amounts of starch, which is not an issue for the majority (even for people with damaged gut), but all really starchy foods are out of the GAPS Diet.

I have just read that metabolic syndrome is the condition of the blood being full of glucose. But honey is nearly one third glucose (31% according to wikipedia). Why is the glucose in sugar bad for me and the glucose in honey good for me? Can I eat too much honey and develop metabolic syndrome?

Sugar is a processed substance; it is extracted from natural plants which contain many nutrients necessary for your body to metabolize sugar safely. When sugar is extracted from cane or sugar beet all those other necessary nutrients are removed. So when this processed sugar comes into your body, your body has to come up with all the missing nutrients in order to make that sugar safe. Magnesium deficiency is a major result of sugar consumption, causing high blood pressure and neurological and behavioral problems (because to metabolize sugar the body needs large amounts of magnesium). But magnesium is just one nutrient necessary to make sugar safe, there are hundreds of

others. Honey is a natural product full of magnesium and other nutrients necessary for the sugars in honey to be safe for the human body.

Metabolic syndrome is caused by processed carbohydrates, which dominate our Western food consumption (breakfast cereals, sugar, everything made from flour including breads and pasta, etc). If you remove those and replace your sugar with natural honey you will be protected from metabolic syndrome. Listen to your taste buds and they will not allow you to overdose on honey or any other food. Please read more on this subject in my book *Put Your Heart In Your Mouth*.

PARASITES & WORMS

You mention controlling parasites with natural remedies. Do you recommend any particular herbs?

There is a long list of plants and herbs traditionally used for driving out parasites and worms: the extract of the hull of black walnut (the green skin on young walnuts), goldenseal root, gentian root, grapefruit seed, pumpkin seed, Artemisia annua, Garlic, Quassia bark, Berberis, Neem and other plants and herbs. There are many good supplements on the market made out of these herbs. One traditional remedy is pickled young walnuts, which used to be popular in Britain and other European countries. They are delicious to have as a pickle with meats and other foods, and are quite powerful as an anti-parasitic. If you have a serious problem, start with one walnut per day because it can cause quite a ‘die-off’ with headaches and other symptoms. Eventually you will be able to have a few pickled walnuts every day: have them with every meal for 4-6 months to drive out all sorts of parasites. If you have walnut trees pickle your own young walnuts; you will find several traditional recipes on the Internet.

I have been on the GAPS Diet for a year. I am feeling a lot calmer but continually feel like my stomach is on fire. I am unable to tolerate charcoal, digestive enzymes or Betaine HCl with pepsin. They make me feel terrible. What do you think the problem is?

Your stomach is populated by pathogenic flora – parasites; they are causing chronic inflammation and irritation in your stomach wall. To start with take diatomaceous earth in combination with the Introduction Diet; start gradually and eventually get up to 4-5 tablespoons a day (preferably on an empty stomach).

Test yourself for H pylori; eradicating it helps some people with this problem. It is important to keep in mind that large number of H pylori species are resistant to common antibiotics; so before agreeing to an antibiotic course ask your doctor to test your individual H pylori for sensitivity to antibiotics.

Please look at the ‘worms and parasites’ section in the FAQs.

In the meantime follow the Introduction Diet to sooth and heal your stomach.

Is the GAPS diet beneficial to someone who has the Blastocystis parasite? The parasites like carbohydrates, so it seems that this is an ideal diet to get rid of them. However, I hear that the blastocystis eat and live on probiotics, so the fermented vegetables and probiotic supplements could make the parasites thrive? What are your recommendations for getting rid of blastocystis?

Blastocystis hominis is a protozoan, which we can get from food and drink, other people or animals. In majority of people it causes no problems, but in people with weakened immunity and abnormal gut flora, it can cause diarrhoea, bloating, nausea, abdominal pain and anal itching. Many other symptoms have been attributed to this parasite as well. Mainstream treatment involves various antibiotics, often combinations of them; but unfortunately there is no unified effective treatment to eradicate it. I have stated my opinion on parasites in other questions or worms and parasites: we all have parasites in our digestive systems. They are a part of our gut flora, so there is no need to fear them or to attack them without good cause. Work on your gut flora using GAPS Programme, get it in balance and all the micro-creatures there will control each other. If you got an acute infestation with this parasite, then a short antibiotic treatment may be helpful. In chronic cases antibiotics are usually of no help; they will only damage your gut flora further.

You recommend Ovex for worms. Here in the USA it is available as Vermox by Rx only. Can we use herbal preparations for worms? What about tapeworms?

I recommend Mebendazole, 100mg (available in Europe as Ovex or Pripsen) as an easy and quick option for common worms, like hookworms, pinworms and some round worms. Take 2 tablets per day (chew one in the morning and one in the evening) for 3 days, repeat this course after 10-14 days to kill remaining eggs. Worms generally are nearly impossible to eradicate, they almost always come back. Herbal preparations work while you take them, but as soon as you stop, these kinds of worms usually re-surface, as they do after Ovex as well. The advantage of Ovex is that it works in 1-3 days, where herbal treatment takes months. Ovex does not address tapeworms. Those are more difficult to remove and for those I would recommend a medication to start with, then followed by herbals. Generally speaking, we all have worms. The important question is: are they affecting your health? If yes, then it is a good idea to fight them. But if they do not bring any symptoms, then there is no need to attack them, as they are a part your inner eco-system and may fulfil some useful roles, such as regulating immunity and preventing autoimmune disease. The typical symptoms of common worms getting out of control are crampy pain in the middle of your abdomen, particularly after food in the mornings, difficulty putting weight on, persistent anaemia (usually hookworms) and bouts of irritating dry cough (the larvae travel up the breathing passages into the throat to be swallowed again).

Many GAPS patients are struggling to fight various forms of parasites. What foods should be avoided to help starve the parasites, such as a roundworm?

Processed carbohydrates, sugar and other processed foods feed parasites. These foods are not allowed on the GAPS diet. However, parasites are adaptable, if you deprive them of one food source, they will use another. Generally speaking, worms and other parasites are an inevitable part of life, everybody has them. In the majority of people they cause no symptoms and, unless they cause problems, there is no need to attack them. Worms may fulfill some useful functions in the body by controlling other microbes and stimulating immunity. For example, it has been discovered that some worms have a balancing effect on the immune system and may prevent autoimmunity.

For those with a history of worms, can Vermox be used preventatively? Is it harmful to do 2-3 treatments a year?

Yes, it can be used preventatively 2-3 times a year.

Do fermented foods help fight parasites?

Fermented food introduce beneficial microbes into the body, which will play their part in a very complex interaction of various micro-creatures, who already live there. We do not know what exactly they do, but in a clinical setting regular consumption of fermented foods helps to eliminate digestive symptoms, caused by parasites.

For pet owners, while there are many benefits, should there be any concerns about picking up parasites? Should any precautions be made when living with pets?

Pets are wonderful: they provide an unconditional love for the whole family, and they provide stimulation for the immune system. The important thing is to have healthy pets, and in order to do that they must be fed properly. Dogs and cats have not been designed to eat grains or soy. Commercial pet foods are largely made out of grains and soy; that is why, thanks to the commercial foods, our dogs and cats get arthritis, autoimmune disease and cancer. On top of that they get skin problems, such as dermatitis and eczema, shedding allergy-causing dandruff. Feed your pets the way Nature has designed them to eat, and you will never need to worry about your pet's health. Cats do best on raw meat with fat on it, raw milk, raw fish and raw liver. An occasional leftover of cooked meat and fish will do them no harm. Dogs do very well if you mix raw minced meat (with good amounts of fat) with some finely chopped raw carrot and live yoghurt. Raw eggs, raw milk and raw fish should also be a regular part of their diet. Cod liver oil and fish oil are very good for dogs, particularly in winter. Occasional cooked vegetables and meat, left over from your dinner, will also do your dog no harm. You will find that feeding your dog and cat that way will cost you less, than buying commercial pet food, and you will save a fortune on vet's fees. Worm your dog or cat once every 6-8 months, and don't worry about parasites: we all have them and no less than our dogs or cats.

PREGNANCY & NURSING

Any special recommendations for pregnant women?

For pregnancy, the diet is very important. The birth canal also needs to be prepared for birth by populating it with beneficial bacteria. To do that, apply live yogurt or kefir on your genital area after you bathe, particularly in the last trimester. Also apply kefir or yogurt on your breasts and armpits. Every 2-3 weeks, insert 1-2 capsules of Bio-Kult in the vagina at bedtime, particularly if there are any unpleasant symptoms in that area.

What are your thoughts on IV antibiotics during labor for streptococcus B infection?

I recommend populating your vagina with beneficial probiotic flora prior to birth and continue after birth. How do we do it? We apply natural homemade kefir to the groin twice a day after baths or showers. We insert 2 capsules of a good quality probiotic into the vagina at bedtime, or use a piece of cotton soaked in kefir inserted into the vagina for a few minutes at bedtime. As you populate your groin with beneficial flora it will take under control or eliminate not only Strep, but every other pathogen that might be there. I do not recommend antibiotics at birth, as they will damage your bodily flora and give your baby an unfortunate start in life (antibiotics not only damage the gut flora but have a direct damaging effect on the immune system, yours and your baby's).

I am currently still breastfeeding my 22-month-old son. After 4 months on GAPS I have not been able to determine what foods he is allergic/sensitive to. Since he is likely reacting to things through breast milk, what pluses and minuses of breastfeeding in my situation should I take into consideration?

Your child should follow the New Baby Diet or the Introduction Diet (in my book) in order to heal the gut lining. You need to be on the 2nd-3rd stages of the GAPS Introduction Diet while you breastfeed. This will 'clean-up' your milk and help you to heal your own gut lining. Breastfeeding longer is good for children and it is very good that you are trying to do it. But it is important to slowly make your milk just a supplement for your son, he is old enough to eat a full diet now.

The introduction diet is not recommended for pregnant and breastfeeding mothers. For those women starting the diet at this stage, should fermented dairy be avoided? Should these women follow the long dairy introduction?

If you have been eating good quality dairy products before your pregnancy, when starting the diet you do not have to go through the Dairy Introduction Structure (p.121 in the new edition of the GAPS book), just continue consuming fermented dairy products. If you were not eating dairy products before, then it is a good idea to follow the Dairy Introduction Structure, but introduce ghee and butter straight away, as they will provide you and your baby with very valuable nutrients. When ghee and butter are well tolerated, gradually introduce homemade sour cream. After the sour cream you can try to introduce full-fat cheese. It is the dairy fats you need the most during pregnancy, so go for the high-fat dairy foods.

Is it harmful to conceive while doing the Intro? Will die-off harm the new foetus?

If you were doing the Intro and then discovered that you got pregnant, don't worry about it: your body obviously felt strong and well enough to conceive, regardless of the die-off. If you are already pregnant then follow the Full GAPS Diet, it will provide a wider range of nutrients for you. If you are suffering from colitis with severe diarrhoea, vomiting and abdominal pain during pregnancy, then follow the Intro diet starting from the 2nd stage; make sure to have plenty of animal fats and liver, and introduce homemade kefir from the beginning (gradually). Having diarrhoea during pregnancy will do more harm to the baby than any die-off a diet may induce. Please, read part four in the GAPS book: *Having a new baby in the GAPS family*.

Should juicing be done by pregnant and nursing women?

Yes! To avoid any reactions, start slowly from small amounts of juice per day and gradually increase. It is a good idea to balance your juice with fat and protein by making GAPS milkshake: make a juice from a mixture of fruit and vegetables, then whisk 1-2 raw eggs into it and a generous dollop of homemade sour cream.

Why can a breastfeeding mother who had a natural birth have trouble with constipation? Doing enemas is tricky with a small baby. Can I take a magnesium supplement?

There are many reasons for constipation, too many to discuss here. Please look at the *Constipation* section in FAQs; there are a number of things you can do to deal with this problem including taking magnesium supplements.

My obstetrician has recommended a baby aspirin daily to help reduce miscarriage risk. Will this cause gastrointestinal distress and interfere with GAPS healing?

Yes, regular intake of aspirin even at a low dose will damage the gut lining. Having freshly pressed juices and GAPS milkshakes daily may be a better option than taking aspirin. Also supplementing fish oils will work as an anti-coagulant and anti-inflammatory agent better than aspirin.

Do you recommend any special supplements during pregnancy? What about a multivitamin?

During pregnancy the most important supplement is good food, particularly natural animal fats, meats, fermented dairy, eggs and liver. These foods will provide fat-soluble vitamins, all B vitamins, lots of folic acid and all other essential nutrients. Add good quality vegetables and fruit, a bit of seaweed, and you will have everything you need. Eating liver daily is particularly important in pregnancy; for example, it is still traditional

in France and Belgium to give pregnant women liver pâté on a daily basis. It is best to eat fermented foods daily, but if you cannot eat them for whatever reason, take a commercial probiotic. If you are not eating enough high-fat animal foods, take good quality cod liver oil. Spend at least 3 hours per day in the fresh air in the sun. Sunbathe, if possible; the sun will provide you with plenty of vitamin D and many other benefits. We are all bombarded by marketing of various supplements; women produced healthy babies for millennia without any supplements, just by eating well, sleeping well and spending most of their days outdoors.

I understand the dangers of doing Intro while nursing. Do you have any advice on what to do if eating the full GAPS diet (nuts, dairy, eggs, coconut oil, etc) causes reactions in the Mother? Do these not get passed on in the breast milk as well, and cause reactions in the baby, if the baby is also intolerant to them?

Yes, this is a serious concern. That is why it is best to do the programme before conception. But of course life is not planned and predictable, and some women have to start the diet while pregnant or nursing. Just do your best to keep your gut working well by eating homemade soups and stews made with meat stock every day. Make sure to eat plenty of animal fats. Avoid raw nuts, soak them overnight in salty water and use them in baking – this way they are easier to digest. If you are reacting badly to certain foods, then avoid them. Limiting fibre in your diet, which means limiting raw plant foods, will reduce food intolerances and reactions. You can have all the benefits of raw fruit and vegetables making juices from them. Eat your vegetables well-cooked as a soup or stew. Concentrate largely on eating animal foods (meat, fat, eggs, organ meats, fish, high-fat dairy), as they are easy to digest, and they provide concentrated amounts of nutrition for you and your baby. If you are eating dairy, concentrate on having high-fat products, such as butter and ghee, sour cream and natural creamy cheese.

Is there ever a situation where it's OK to do the Intro diet while nursing, and if so how young can the baby be when you start? I would like to do GAPS Intro, but I am nursing my 4 month old. Why it is not recommended to do the Intro while nursing? I feel that it is much needed and would like to seal up my gut so that we can both go on and eat nourishing foods. What should I do?

If your baby is well, you can start introducing solids from the age of 4 months. Please, follow the *Baby Diet* in my book. Once your baby is eating solids, and your breast milk is only used for topping up, you can go on the Introduction diet. The reason for not starting the Introduction Diet while nursing a newborn baby is this: the diet can initiate die-off and detox in you, which will put toxins into your milk. Also the diet will change the nutritional composition of your milk, which may not be a good idea while nursing. However, you can follow the Full GAPS Diet while nursing, including on the healing foods from the Intro, such as meat and bone broth, soups and stews.

Would you recommend enemas (specifically coffee enemas) for nursing and or pregnant women?

I would recommend enemas for pregnant and nursing women only to remedy constipation, but not coffee enemas. Just use water with a bit of salt.

Before conceiving should one have been successful in introducing dairy, eggs, nuts and/or fruit? In other words, what are the essential components of a healthy diet for pregnancy? For someone with dietary restriction, would you recommend supplemental vitamins beyond your protocol?

You can get all the essential nutrients for your baby from fresh meats, organ meats, animal fats, fish and vegetables. Make sure that you consume a variety of vegetables with every meal: some cooked, some raw and some fermented. You don't have to introduce nuts or fruit to have plenty of nutrition for your baby. You don't have to consume dairy either, but ghee and butter will be very valuable for your baby, so see if you can introduce them; the majority of people with dairy allergy can tolerate ghee and butter. Test not only cow's ghee and butter, but goat's, sheep's or other. Eggs are also very valuable for your baby, so do the Sensitivity Test separately with raw egg white and raw egg yolk and see if you can tolerate raw egg yolk. Apart from chicken eggs try duck, goose, quail eggs or any other eggs you can get: some people who cannot tolerate chicken eggs can eat eggs from other birds without any problems.

I would be cautious with supplements during pregnancy and focus only on natural ones: probiotics, seaweed, bee pollen and fermented cod liver oil. If you consume natural unrefined salt and seaweed you will get plenty of minerals in your diet. If you consume homemade freshly pressed juices you will get lots more minerals and vitamins. Vitamin supplements contain synthetic vitamins, which I do not recommend.

During my last pregnancy in 2010 my blood tests showed that I was no longer immune to rubella. My husband is concerned that should we conceive again, I would be at risk if exposed to rubella. Once I finish breastfeeding, do you suggest a mother such as myself get vaccinated against rubella? If so, how long before planned conception should this be done?

Rubella is quite uncommon in the Western countries and your chance of contracting it during pregnancy is very small. If you are travelling abroad, obviously the situation changes. Look after your immune system through diet and lifestyle and you will be protected from contracting rubella or any other infection.

Your frame of mind is very important in contracting any infection! If you and your husband are worried about rubella, then perhaps it is a good idea to do the vaccination. Just make sure that you stopped breastfeeding and are not pregnant with your next baby yet. And make sure that you are absolutely healthy and well-nourished during the vaccination. I would wait for 2-3 months after the vaccination before conceiving.

My baby got acne – 2 weeks after she was born and still has it at 2 months. People say ‘it’s from the hormones she gets from me’ or due to the fact that ‘a baby’s digestive system still has not developed’. But if this is true then why do some babies not get baby acne? Could such acne be caused by food I eat that leaks through my leaky gut and gets into my milk? How do you know when baby acne is a sign of digestive issues and whether those issues are mine or my baby’s?

Chinese say that face is the mirror of the bowel. This is not likely to be hormones, but toxins. The baby can have spots on the face due to toxins coming from milk and due to toxins produced in her gut; possibly both are involved. So, try to change both your diet and your baby’s diet. If the baby is exclusively breastfed, then just changing your diet (to the Full GAPS diet) and giving the baby a probiotic should help.

Would you please comment on depression in pregnancy, and how can GAPS be used to deal with morning sickness?

Depression during and after pregnancy is due to deficiencies in fats and protein in the mother, because her own fats and protein are being used to build the baby’s body (the brain in particular). To deal with that eat fresh meat, eggs and animal fats every day with vegetables, beans and some gluten-free grains (if you do not have digestive problems). Avoid bread as it is very filling (and low in useful nutrition) and leaves less space in your stomach for the nourishing foods (meats, eggs and fat). Take a supplement of cod liver oil and fish oils + some evening primrose oil. Raw fats, such as raw butter, raw sour cream and fresh raw cream are easier to digest and assimilate, eat as much as you can tolerate (no matter how alarming these large amounts might look to others). Morning sickness happens at the beginning of pregnancy. Generally it goes away fairly quickly, but in women with larger toxic load in the body it can be quite severe. Make fresh ginger tea for yourself and sip it all day. See if you can tolerate adding some fresh lemon to the ginger tea; it will add some potassium and magnesium. Make meat stock or vegetable stock and keep drinking it. Eat what you can tolerate until the morning sickness goes away.

We are a GAPS family. For our third child (to be born by C-section, like the first two), would you recommend some kind of vaginal swab as a means of inoculating the newborn’s mouth with beneficial micro-organisms?

There is no need for that, as flora from the groin spreads all the over the body by our hands. Make sure to breastfeed you baby, while following the Full GAPS Diet yourself. Occasionally dust your nipples with a probiotic before breastfeeding; this way you will supplement your baby’s digestive system with a probiotic. Apply your homemade raw whey or kefir all over you armpits and breasts after baths and showers to keep those areas populated by beneficial flora (as long as your baby does not have a true IgE allergy to dairy). When your baby is ready for solids, follow the *New Baby Diet* in my book (second edition).

RESTLESS LEG SYNDROME

Can Restless Leg Syndrome be helped with GAPS?

Yes! This unpleasant condition is due to lack or abnormal metabolism of magnesium in the body; often both are involved. Just supplementing magnesium may not help, as the toxins in the body interfere in its functions. Nevertheless, try to supplement magnesium and continue with the GAPS programme, which over time will remove toxins from your body and improve magnesium functions.

Another thing to consider is dentistry: though your legs seem to be far away from your teeth, the restless leg syndrome is often caused by metals in your mouth (in dental fillings, bridges and crowns). Nickel, gold, silver, titanium and of course amalgam can create a condition, called oral galvanism. Simply put, oral galvanism is like having an active electric battery in your mouth, with currents between different teeth. The electricity in your mouth is picked up by your nervous system, causing very unpleasant symptoms far removed from the teeth, such as in your legs, arms and elsewhere. A good environmental dentist will be able to measure electric currents in your mouth.

The FAQs talks about restless leg syndrome and muscle cramps in GAPS people. What does it mean if muscle twitching in legs starts happening AFTER starting the Introduction Diet?

This is one of the die-off symptoms often seen in GAPS people. Toxins released by the die-off can cause muscle cramps and restless legs; it will pass.

SCD (SPECIFIC CARBOHYDRATE DIET)

SCD vs GAPS?

As I explain in my book *Gut and Psychology Syndrome*, GAPS has evolved from SCD. When my book was first written, Elaine Gottschall read it and was very complementary about it. We never met, but we corresponded regularly and I would say, that we had a professional friendship. It is up to every individual to decide what is right for him or her: SCD or GAPS. I have many patients who used to be on SCD, and then switched on to GAPS with good results. Also GAPS is not just a diet, it is a Nutritional Programme.

SUPPLEMENTS

Would supplementation with hydrolyzed collagen powder during the GAPS protocol be beneficial to further support gut healing?

It is much better to have homemade meat stocks, bone broths and gelatinous meats to provide collagen for your gut. Supplements may have started from natural ingredients, but then they were subjected to industrial processes that make them unnatural.

I am writing to inquire about IV glutathione treatment in conjunction with GAPS Diet. Is IV glutathione something you have experience with, or an opinion about for someone doing the GAPS Diet? I am exploring this adjunct therapy to help heal neurological brain injury.

I don't have much experience with IV glutathione. There are different opinions about it amongst professionals; the response to this therapy seems to be very individual. If you really want to try it, give it a try; your body will let you know quite quickly if it works for you.

To heal your brain you need to feed it well and protect it from toxins and autoimmune damage. GAPS Nutritional Protocol will do all three for you. Make sure to have plenty of good quality fresh animal fats, particularly bone marrow, inner abdominal fat (suet), tongue, liver, raw butter and cream, raw cheese and raw egg yolks.

For a person who had their colon completely removed due to ulcerative colitis is it wrong to introduce bacteria species that only live in the colon (bifidobacteria strains) because there is a change they will colonize where they are not supposed to be? Or is it good to use a full spectrum probiotic like Bio-Kult so the person will receive the benefits of the beneficial flora that they no longer have since the colon was removed?

I have been recommending broad spectrum probiotics, such as Bio-Kult, to patients with parts of their digestive system removed with good results. Generally human body has a wonderful ability to compensate: other parts of the digestive system take it upon themselves to do the work of the removed parts. We don't have enough research in this area, we don't know exactly how the body copes after the operation, but I would imagine that some reconstruction and adaptation happens. It is essential for a person in this situation to stay on the 1-2 stages of the Introduction Diet for a long time, for years sometimes, and take probiotics in order to reach some form of normality.

What is your position regarding a new protocol called MMS, which is becoming very popular amongst parents of kids with autism? It involves chlorine dioxide to be given orally or/and in enema to combat parasites, bio-film and yeast. Is it GAPS legal? Can it be used at the same time as doing GAPS?

MMS (Magic Mineral Solution) was developed for treating malaria by drinking a solution of chlorine dioxide. The chemical itself is not incompatible with the GAPS Protocol, but in my clinical experience it is not something that makes much difference to the overall state of the patients. So I do not recommend it.

I have heard and read from multiple sources that taking L-glutamine can speed the healing process in the gut. Is this true? What's the science behind this claim?

The cells of the gut lining can use glutamine as one of the energy sources. Based on this fact an idea of supplementing glutamine was born suggesting that it may assist in healing the gut. From a clinical perspective I see much more happening with changing the diet rather than supplementing anything. A cup of warm homemade meat stock or bone broth will prove your gut lining with lots of glutamine as well as all the other amino acids necessary for healing.

What is your opinion on pine cone extract?

Pine trees have traditionally been used to produce many different health remedies; pine bark, needles, resin, cones and roots all have medicinal properties (antiviral, antibacterial, antifungal, detoxifying and immune boosting). There are many different pine-based supplements on the market. I made it a rule not to recommend any specific brands of supplements. The only way to know is to try them for yourself and decide if they are helpful or to work with a practitioner who is experienced in using a particular supplement. Alternatively you can collect parts of pine trees yourself and use them at home, as people used to do in traditional societies. Young pine needles and buds can be eaten fresh and added to salads; mature pine needles and pine cones can be used for making tea. Pine bark can be dried and added to your soups and fermented mixtures in small amounts and used for making teas. Strong concoctions of any part of pine can be used topically for skin problems.

Can Bio-Kult be given to infants?

Probiotics are safe at any age. New born children get their first dose as they emerge through the vaginal canal and further inoculations from sticking dirty fingers into their mouth. The dose needed for an infant is basically enough to get through the stomach - 1 or 2 capsules daily is probably enough in most cases. You can't overdose - you just won't get any extra benefit from giving more than is needed and it will cost more! [Please consult your healthcare practitioner before giving any supplements to infants.]

I have read that sometimes an excess of probiotics can upset the GI microbiome and promote excess candida. Can you please comment on this?

I know people who took enormous doses of probiotics, beyond anybody's imagination, with excellent results for their health. I know one family whose child's PANDAS (Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal infections) got removed by taking very large doses of probiotics, with no other changes introduced. I know people who recovered from Crohn's disease, ulcerative colitis, IBS and other digestive disorders with large doses of probiotics. The important thing that many people overlook is the die-off; you have to introduce probiotics gradually. Candida is a fungus. The large family of fungi is on this planet for a purpose – they are cleaners and detoxifiers. If there are toxins in the body which need to be neutralized fungi will be there, and will not go away until those toxins stop coming into the body. Amalgam fillings are a major cause of candida overgrowth in people's digestive systems,

as they keep releasing mercury and other toxic metals. But there are many other toxins (usually man-made chemicals) which will cause candida overgrowth. Think carefully what chemicals you are exposed to on a daily basis and remove that exposure.

Who should take Betaine HCl with Pepsin?

Not everyone should take Betaine HCl right from the beginning, particularly children. In many GAPS people, stomach lining can be too sensitive to tolerate it. Usually for children it is not recommended at the beginning at all; later on if there is excessive burping after food, which will indicate low stomach acid, it may be introduced. In adults, it is recommended for people with excessive burping. You may want to introduce the Betaine after the meal, (not at the beginning as it usually indicates on the label) to avoid burning the stomach. When a good amount of healing has taken place, the person can start taking it at the beginning of the meal.

Is castor oil recommended?

Not routinely. An overnight application of castor oil on the abdomen of the person, covered with a hot towel and a hot water bottle can be helpful in cases of chronic constipation. Some chronically constipated people find it helpful internally.

Is colloidal silver safe and do you recommend to use it?

No, I do not. Silver accumulates in the body: people, who take it for long periods of time get a grey skin colour. It is a very old antiseptic; it was proposed around the same time when mercury was used as an antiseptic. It is indiscriminate in attacking the microbes: it attacks the good and the bad, just like antibiotics do.

Are there any specific recommendations for a good seed/nut oil blend?

You do not have to find an exact ratio of omega-3 to omega-6 in the oil, just make sure that it is pure and good quality and has more omega-3 fatty acids in it, than omega-6 (we get quite a lot of omega-6 from nuts).

Aloe Vera and Seaweed?

These products should be avoided by those with severe digestive issues. Once your digestive system is fairly healed through the GAPS protocol, Aloe Vera and Seaweed can be slowly introduced if desired.

Is nutritional yeast GAPS legal?

Yes, some species of yeast are allowed, providing that the person is not allergic to it, as some people with yeast overgrowth can be. Kefir contains yeast species (which are

recommended for the majority of patients) and in many patients *S. boulardii* is recommended as a supplement, which is also yeast.

If an individual seems to be sensitive to one of the recommended supplements, how should you proceed? Many people report having difficulties with cod liver oil.

There are several reasons for why a supplement may disagree with you (providing that the supplement is of good quality and works at all). It may cause a detox / healing reaction, which in the long run may be better for you, but at the moment is too severe. In the case of probiotics it may be a die-off reaction. Or it may be just unsuitable for your health condition or constitution. Strictly speaking supplements are not 100% essential; it is the GAPS diet that will do the work for you. So, if a supplement is causing a serious reaction, just stop it and give all your attention to the diet for a few months. Then, when your digestion is considerably better and you feel that a particular supplement may be of help now, try it again, starting from a tiny dose. Cod liver oil, other fish oils and evening primrose oil may be problematic for people with seizures, tics, Tourette and other involuntary movements. We don't know why: whether some healing restructuring of the brain gets initiated by these oils or some other mechanism is at work, but the seizures can get worse; so, it is a good idea to avoid these oils in people with involuntary movements. With probiotics: control the die-off by starting from a very small dose and increasing the dose very gradually. If no amount of probiotic can be tolerated, then work on fermented foods first as part of the diet. It is a good idea with all supplements to start from a small dose and build the dose up gradually, observing your body. We are all different, we all have unique physiology; a supplement that worked for your friend is not necessarily going to work for you the same way.

I was wondering if chlorophyll is allowed. We had been supplementing with it on occasion before starting GAPS, and I'm wondering if we can continue.

Yes, chlorophyll is allowed.

Is Bentonite Clay GAPS legal and is it recommended?

No, it is not recommended to use bentonite clay, particularly when digestive symptoms are present. When you have been on the Full GAPS Diet for a while and your digestive symptoms are gone, then you can experiment with nutritional supplements and remedies (such as bentonite clay), if you feel that they may be helpful to you.

How should *S. boulardii* be dosed when used for candida?

Always start from a small dose and gradually increase it to a therapeutic level, stay on this level for 3-4 months, then gradually reduce to none. For an adult the therapeutic dose is usually 4-5 billion live cells per day. For a child use smaller doses depending on the age of the child: 3-5 years of age the dose is 1 billion live cells per day, for 6-11 years of age 2 billion per day, for older children 3-4 billion per day. I would not use *S. boulardii*

with children younger than 3, it is better to use homemade kefir for these children. It is important to always combine *S. boulardii* with other probiotics, as it should not be allowed to dominate in the gut. Based on my experience, I would not use *S. boulardii* permanently, only as a course. On a long term basis it is better to use kefir, which contains a group of beneficial yeasts as well as bacteria.

I was able to get to the therapeutic probiotic dose in a matter of days and have not seen any sign of die-off. What does this mean?

It may mean that your body compensates well for various toxins and your liver is processing them well. Or it may mean that you are not processing your sensory input well. We are all different: some of us have acute senses and react to the smallest pain quite dramatically; others are able to tolerate quite a lot of discomfort without much reaction. Many GAPS people have a high threshold of pain, which is particularly pronounced in some autistic children: they can hurt themselves quite badly and show no reaction, as they do not feel the pain the way they should.

I have read that prolonged use of magnesium citrate tablets/capsules can cause the body to become lazy and that peristalsis will stop? Do you agree with this theory? I was taking roughly 1,000mg at night to help me sleep and so I would have a bowel movement in the morning. After reading about peristalsis I quit taking magnesium citrate. I am finally having daily bowel movements without it, but now I wake up 4 to 5 times during the night and my blood sugar seems higher. I would like to add this supplement back in but I am hesitant?

I would not recommend taking any supplement on a permanent basis. It is better to have magnesium in food form in fruit and vegetables: oranges and other citrus fruit, greens, natural local apples, etc or juices made from them (drinking a green juice first thing in the morning will regulate your bowel). Nuts are usually rich in magnesium. If you are not eating sugar or any other processed carbohydrates, then your body will handle magnesium well without losing it. To sleep better you may try other approaches, for example try to boost your serotonin production by taking 5HTP supplement for a while. Try to take melatonin for a while. Try some herbs, such as valerian and hops. Spirulina will help with both bowel movements and sleep.

Some people advise the use of hydrogen peroxide to get rid of the bad gut flora. Would that be a good idea? Could it help GAPS patients?

The short answer is yes. However, due to taste and immediate die-off it is far from easy to take hydrogen peroxide (H₂O₂), and in my experience vast majority of people, having tried it, simply cannot do it. You need 35% food grade H₂O₂, which you can get in some health food stores. It is recommended that you start from a few drops per glass of water on an empty stomach once or twice daily, and gradually increase the concentration by adding one more drop at a time. Once consumed H₂O₂ breaks into water and free oxygen, which is considered to be the most deadly agent on this planet for any microbe. People with GERD, reflux and other stomach problems may find it helpful to take H₂O₂

on an empty stomach, because their problems are largely due to yeast overgrowth in the stomach. After initial die-off, as the stomach becomes more sterile, the symptoms may clear. It is essential to use only food grade H₂O₂, as other preparations may have chemicals added to stabilise it. I don't routinely recommend hydrogen peroxide, as it is quite harsh and can cause a very serious die-off reaction.

Does diatomaceous earth help with digestive system?

Yes, I would try this supplement to help to reduce the parasite burden. In my experience it seems to be safe for the majority of people and helps to reduce digestive symptoms, particularly reflux, burping and other symptoms of gastritis. It is best to take it on an empty stomach, so first thing in the morning and before meals are good times. I also recommend taking a dose last thing before bed. To avoid die-off start from a small amount (1/3-1/2 of a teaspoon once a day), and then gradually increase to a tablespoons 3-5 times a day for an adult and ½-1 teaspoon for a child (depending on the age), in half a cup of water.

Do you recommend or support the use of activated charcoal, clay or vitamin C for detox use during die-off?

Yes, many people try these remedies and find that they help.

What is your opinion on EMs (Effective Micro-organisms)?

EM concept is very similar to what we understand about gut flora: it is a complex world of various microbes living side-by-side and affecting each other, as well as the host. The original development of the concept is attributed to a Japanese Professor Teruo Higa. The EM formulas are mixtures of various bacteria and fungi; originally they were used in silage preparation in farming. Now there are many various proprietary formulas on the market under the name of EM. Professor Higa classified the microbes in any natural ecosystem into three groups: beneficial, negative and opportunistic. Exactly the same classification exists for human gut flora. EMs aim at boosting the beneficial microbes in order to keep the system healthy. So, any multi-strain probiotic can be considered an EM, as it is a mixture of beneficial microbes.

Even the smallest amount of any probiotic food or supplement causes me severe bloating, fatigue and pain. How do I do the diet if I can't take probiotics? Are there any conditions where probiotic are not recommended?

People suffering from ME, chronic fatigue syndrome, fibromyalgia and some other debilitating conditions often have difficulties introducing probiotics. The reason for that is the die-off effect: it is so severe in this group of patients that they find it very difficult to cope with. Just start from a tiny amount and go up very slowly. I have patients who start from 1/18th of a capsule of the Bio-Kult (or as much powder as would fit on the end of a sharp knife), and it takes them months to get up to one capsule per day. The same

with fermented foods, start from a tiny amount per 5-7 days; as your body gets used to that amount, start taking it a bit more frequently. When you can take that tiny amount every day, start increasing the dose. Proceed in this very slow manner. It is important for you to introduce probiotics in the form of food or supplement. You just have to go slowly.

Does the acidity of certain supplements, for example Betaine HCl or vitamin C in the form of ascorbic acid cause any irritation to the gut?

Yes, it does! That is why these supplements need to be taken carefully and only when they are needed. Take Betaine HCl only with main meals when fats and meats in the meal will bind it. Don't take Betaine HCl permanently, it is a temporary measure. In the long run restore your normal stomach acid production with cabbage juice, sauerkraut and other fermented cabbage recipes. I generally do not recommend ascorbic acid as it is an irritant to the gut lining. GAPS diet provides plenty of vitamin C in the food form (particularly when juicing is introduced). If you wish to take a supplement, it is better to have vitamin C in a whole natural form, such as acerola cherry powder.

Will natural remedies such as grapefruit seed extract and oregano oil kill the good bacteria like antibiotics do?

Yes, they will. That is why they need to be used only in certain cases, when the overgrowth of a particular pathogen, such as candida, warrants its use. While attacking candida with these remedies, keep adding beneficial bacteria to the gut in the form of both fermented foods and a good quality probiotics.

Are tinctures of digestive aids such as ginger or mugwort GAPS allowed?

Yes, as long as they do not contain sugar or any other non-allowed ingredients. Alcohol is commonly used as a preservative in tinctures, which is OK: as tinctures are taken in minute amounts the dose of alcohol is insignificant.

I have been recommended to try bitters. Are they GAPS legal?

Many bitters contain sugar and other ingredients added. So, read the ingredients list carefully: if it contains only herbs then try it. It is a strong alcoholic beverage and should be consumed in very small amounts after food.

What is the typical time frame for giving HCl&Pepsin? I have given it to my two young sons and it seemed to help, but it would be difficult for my youngest to express whether or not it is causing stomach distress. What would be the minimum amount of time I should try using it with them? How will I know when it is OK to stop?

Long-term consumption of HCl&Pepsin can cause stomach irritation. Generally for children I recommend to use cabbage as a stomach acidity stimulator: give them cabbage

juice, fresh cabbage salad or a small helping of sauerkraut 5-10 minutes before the meal, and their stomachs will be ready and full of acid. If this measure is not enough, then use a little of HCl&Pepsin with large meals only.

What is the difference between algae and seaweed that seaweeds are allowed and algae are not?

Actually seaweed is a form of algae, strictly speaking. This is a good point which slipped my attention, thank you for pointing it out. As nutritional supplements algae are commercially cultivated and can be sold under names of spirulina, algae, chlorella and dunalialla. Both seaweed and algae can be introduced when the Introduction Diet has been completed and there are no more digestive problems. Keep in mind that supplements of algae can cause diarrhoea and can be very helpful in resolving constipation.

My toddler and I experience severe diarrhoea with the intake of omega-3 supplements and fish. We also have suspected pyroluria. It is my understanding that with pyroluria omega-3 can cause problems and should be generally avoided. Should we just avoid these healing foods until the pyroluria imbalance is cured after being on the GAPS diet for a while? Or is there such a thing as omega-3 intolerance? Some other reason this would cause diarrhoea?

Yes, just avoid fish oils and fish for now. There may be a number of reasons for not being able to tolerate them: intolerance to some ingredients in the oil (which may not be listed, such as solvents and other chemicals used in the extraction process), mercury and other contaminants from the sea, or it may be a healing reaction. We may never know. You can get well without supplements of fish oil. In about six months time try to introduce fermented fish and see if you and your child can tolerate that.

Can a person with shellfish allergy safely take cod liver oil? I am able to eat fish such as tuna and salmon with no reaction. If CLO is not recommended for persons with shellfish allergy, what can be taken instead of it to achieve similar beneficial effects?

I suggest that you do the Sensitivity Test with cod liver oil first (the test is described in the book and the website). If you can eat fish, then chances are that you will tolerate cod liver oil. If not, don't worry, GAPS Diet provides plenty of vitamins A and D in the form of animal fats, liver, meats and egg yolks.

I have read many times that natural anti-bacterials such as grapefruit seed extract, oil of oregano, etc will also kill the beneficial bacteria in the gut, much like antibiotics do. The theory is that an anti-bacterial cannot distinguish between 'good' or 'bad' bacteria. Wouldn't the same be true for coconut oil? It is claimed that coconut oil is anti-fungal, anti-parasitic and anti-bacterial.

Please see other question in the Supplements section of FAQs, which cover natural anti-bacterials. Coconut oil is a whole food, it is balanced and usually is not associated with any damage to beneficial flora. Take probiotics to protect your flora.

Your book indicates that seed/nut oil blends must be refrigerated at all times. I have not seen any products on the market that are continuously refrigerated. Most manufacturers recommend refrigeration after opening. What do you recommend?

Refrigerate these oils all the time they are in your possession. Always smell the oil when you open the bottle to make sure it is not rancid. Plant oils are very fragile and easily damaged by oxygen, light and heat.

I have heard of some controversy regarding grapefruit seed extract, that it is actually a synthetic preservative that is added to the GSE, benzethonium chloride that is responsible for its anti-microbial benefit. Do you have any comments, or is there a particular brand that you trust?

This just demonstrates again that we need to be careful with supplements! Many of them are so processed that the original natural substances, which are supposed to be responsible for the benefits, are destroyed. Then preservatives are added and other chemicals. Original grapefruit seed extract was made by hand from the seeds of organic grapefruit. But as this substance became popular larger companies got involved and started using industrial processes, which changed the quality of this supplement. Today it is difficult to find real grapefruit seed extract. The original company which supplied my clinic has gone out of business and I have not found a replacement yet.

I would really love to hear your opinion on the following two substances: colostrum and shilajit.

Both are allowed on GAPS and can be very beneficial, providing that you have genuine substances of good quality. Quite a few colostrum supplements on the market are heated and processed to such a degree that they lose their potency. Shilajit or mumijo has to melt in your hands, if it does not - it is not genuine. The response to colostrum and shilajit/mumijo (as to any other supplement) is very individual: some people find them miraculous, other people find no benefit at all.

I never know how to answer this: people ask why we, GAPS patients, can't simply take 'enzymes' to digest our carbs?

These are people who want a 'quick fix' and 'a pill' for their problems. On some level they do know that there are no quick fixes in life, but they do not want to put any real effort into their health. Surprising as it may sound, for many people good health is not their priority, they are busy with other things in life. There is no 'enzyme' or another pill that will heal your gut, change your gut flora and make your whole body healthy.

I found that Transfer Factor (a natural substance in milk) is very useful when my family caught flu, had cold or fever. May you advise whether this supplement is safe and I can use it as a natural remedy?

I made it a rule not to promote any brands of supplements. There are many good supplements on the market, but the market changes all the time. Please work with a practitioner and judge for yourself if a particular supplement works for you.

What are your thoughts on Cell Food in supporting the GAPS diet?

I made it a rule not to promote any brands of supplements. There are many good supplements on the market, but the market changes all the time. Please work with a practitioner and judge for yourself if a particular supplement works for you.

TEETH

You mention oil-pulling, but only so far as dipping a toothbrush in oil. Would traditional oil-pulling with cold-pressed unrefined sesame oil be good for detox? How about sesame oil massage? What are your thoughts on sesame oil in cooking?

Oil pulling is a very old and effective detoxifying procedure. Of course I recommend it, with any cold-pressed oil available to you. Sesame oil is the most available oil in India, where oil pulling procedure comes from, that is why it is used the most in the literature. There are written accounts of healing all sorts of chronic 'incurable' conditions by doing oil pull all day long for many days. Oil massage is also good.

I do not recommend cooking with sesame or any other plant oil, instead I recommend cooking with animal fats. Please read about this in detail in my books.

Is it safe for a child to try oil pulling? If so, how can I convince my pre-teen to do it? Also, is olive oil enough to brush teeth with (morning breath)?

It is safe for a child to do oil pulling. The easiest way for your child to do it is to brush his teeth with olive oil twice a day; it cleans the teeth very well and will deal with the 'morning breath'. Occasionally, when you want the teeth to be particularly white, add some bicarbonate of soda (dip the brush into olive oil first and then into the soda, brush as usual). Do not use any commercial toothpaste, even natural ones for the child. In order to convince the child to do anything, including brushing teeth, I suggest to use behaviour modification; please read the chapter *A few words about education* in the GAPS book.

Why do some GAPS patients experience tooth discoloration and hair loss?

Tooth discoloration and hair loss are very rare in GAPS patients, and usually happen in very toxic people, particularly people with metal toxicity. Hair and teeth are those places where the body often stores toxins in. Many things happen in the body, as the GAPS program is initiated. We don't know what happens exactly, but it is possible that the hair, full of toxins, get dropped by the body to allow new "clean" hair to grow. With teeth: I have seen autistic children who had their permanent teeth growing with black spots imbedded in them. One particular boy displayed noticeable improvements in his autism in the weeks following the removal of the black spot by the dentist. It is possible that his body had stored mercury from vaccinations or some other toxins in the growing tooth. We don't know what happens exactly, but it is likely that the detoxification initiated by the GAPS Nutritional Protocol starts shifting the toxins around, which may be the cause of tooth discoloration in the initial stages. In the long run, however, your child is likely to grow beautiful whit teeth, as I have seen in so many GAPS children.

Does over-consumption of nuts and seeds cause tooth decay?

The GAPS diet does not equate to eating nuts only, it is a varied balanced diet. I have not seen any tooth decay with GAPS diet, just the opposite. I have children in my clinic, who had terrible problems with milk teeth, but once on GAPS Nutritional Programme they grow beautiful healthy permanent teeth. I remember one child, who had 11 filling put into his milk teeth at the age of four, as his tooth decay was terrible. He went on GAPS Programme at the age of five and now, at the age of 12, he has the most beautiful smile with white, perfectly shaped, healthy teeth.

Should any precautions be taken when dental work is needed? Is it possible for cavities to resolve on their own with the GAPS diet? What if a root canal is recommended?

Please, look inside your mouth and consider a question: how many functional teeth you would have left if it wasn't for the modern dentistry? For many people the answer is going to be: not many! Yes, root canals are not ideal, but I am sure you know many people with quite a few root canals in their teeth, who are functioning perfectly well and can be considered healthy. It all depends on the balance of things in the body: if your immunity is strong and well nourished, it will keep your root canals and other places of chronic infection under control. So, keep your immune system well nourished with animal fats, probiotics and good quality homemade food.

I would recommend working with your dentist to use the least toxic alternatives, but if the root canal is recommended then you will probably have to have it. I do not know anybody whose root canals resolved on their own. Try to find a holistic dentist, there aren't many of them, but if we all start demanding it, more dentists will have to get trained to become holistic. Eat well prior to the treatment and sleep well, avoid late nights or alcohol. Do the same after the treatment. Taking some natural vitamin C (such as acerola cherry) for a few days prior to treatment and after it is helpful.

I am planning on getting my silver fillings removed. Do you recommend a detox protocol before, during and after?

I do not recommend removing amalgam filling until you strengthen your digestive system and your immunity with the GAPS Nutritional Protocol. When your digestive symptoms are gone and you feel well, then work with a holistic dentist to start removing amalgams. It is very important to work with holistic dentists, as they are trained how to remove amalgams safely.

Probiotics and fermented foods are powerful chelators of toxic metals, such as mercury, lead and other. You will be having plenty of probiotics and fermented foods in your GAPS Programme. Juicing will also remove many toxins out of your body. When your digestive symptoms get better you can start taking seaweed as a supplement, which is also a good chelator of toxic metals. Continue with your GAPS diet, continue taking probiotics, seaweed and drinking juices through the process of amalgam removals and after it.

I have had slight receding gums for 10 years which I hoped would get better on GAPS. After 6 months the situation has got worse and some of my teeth are eroding at the gum line. Is there anything specific I can do to help? I believe oil pulling can help but is it OK to do with amalgams in the mouth?

Amalgams need to be removed! Receding gums are often due to autoimmunity – the immune system is trying to clean out mercury and other toxins from the mouth, attacking the cells which have accumulated those toxins. GAPS restores the strength of our immune system; as it gets healthier and more able to do its jobs it would attack and remove toxic and diseased cells more vigorously. Majority of these cells are likely to be in your gums. Yes, oil pulling should help. Brushing your teeth with olive oil and bicarbonate of soda will also help (instead of toothpaste). Following the GAPS Introduction Diet will help to provide plenty of materials to repair your gums and other tissues.

My teeth keep developing black/grey discoloration. My dental hygienist has to work hard to remove it every time. What can it be and what can I do to stop it?

You have an overgrowth of microbes in your mouth (likely to be some sort of yeast), which produce black pigment. I suggest the following: instead of using toothpaste brush your teeth with a mixture of olive oil and bicarbonate of soda. Have two different dishes in the bathroom: one with olive oil and another with bicarbonate of soda; dip your brush into the oil first and then into the soda. Brush your teeth as usual, rinse; then brush again with clean wet brush and rinse again. Bicarbonate of soda is deadly for fungi/yeasts. Oil will soothe and feed the gums, remove any fat-soluble toxins produced by the yeast, and neutralize the abrasive qualities of the soda. You can brush your teeth this way every day and they will stay white and clean.

I need to have dental surgery. Do you have any advice for managing pain without harming the gut flora? I know that NSAIDs and other pain medications are bad, but what about the drugs they will give me to put me to sleep during the surgery?

The injections you get during surgery should not affect your gut flora significantly. After the surgery stick to the diet strictly, and have some pure turmeric supplement (take the highest recommended dose). You will have to have liquids or soft food for a while anyway, so have meat stocks, bone broths, soups, softly cooked eggs, lots of sour cream, kefir and butter. Onion sautéed in butter with also help (it should be well cooked and soft); very good with eggs and olive oil on top. They will all help to remove pain quickly and heal quickly. If the pain is strong, ask for injectable pain killers rather than NSAIDs. Get some sea buckthorn oil and apply it to the wound in your mouth between meals (just take a mouthful and hold it), it will help in healing.

TESTING

Do you find the hydrogen breath test for lactose intolerance to be a useful tool for GAPS patients?

In some occasions it is useful. However, most things can be assessed without testing: if after drinking milk fairly shortly you get bloating and cramps, you are lactose-intolerant.

Is a stool analysis a reliable way to determine candida overgrowth?

No. Testing for candida is notoriously unreliable; the diagnosis is usually done from clinical observation.

THYROID

If one has hypothyroidism, should they be concerned about the goitrogenic properties of cabbage when it comes to eating sauerkraut? If so, how much would be an acceptable amount? I have hypothyroidism and generally drink three tablespoons of sauerkraut juice prior to each meal. I take medication for hypothyroidism; will sauerkraut juice suppress my thyroid function?

Three tablespoons of sauerkraut juice will not suppress your thyroid function; I have never seen such effect in my patients. I have not found any studies on this subject, but during fermentation many substances in the cabbage change, so it is possible that the goitrogenic substances may have been destroyed.

In addition to the GAPS diet, to support a weak thyroid (hypothyroid), is careful supplementation with Lugol solution acceptable or would this be discourages?

Many people are deficient in iodine, which is essential for thyroid function. Every one of us has a unique individual need for iodine, so the standard daily recommended allowances are usually not helpful. To test if your body needs iodine (and to supplement it) paint a patch the size of your hand on your skin using Lugol solution or an iodine tincture. The solution will colour that patch of your skin brown. If in 24 hours the brown colour has disappeared (which means that iodine got absorbed through the skin), then your body is deficient in iodine. If you are on the GAPS introduction diet, you can supplement iodine by taking the Lugol solution or by painting the brown patch on your skin every day (choose a different patch of the skin every time). If you are on the Full GAPS diet and your digestion is OK, introduce seaweed: there are many supplements of kelp on the market or other high-iodine varieties of seaweed (such as knotten wrack seaweed or askophyllum nodosum) [Please view the Seagreens products at our online store]. Eating seaweed (or taking it as a supplement) is the best way to supply your body with iodine long-term. To work out what dose of seaweed you need, keep using the skin test while gradually increasing your daily dose of seaweed.

What do you suggest for those with thyroid issues? Should medication be used until the body begins healing?

In GAPS people the thyroid function can be affected in more than one way. The thyroid gland may not function well and not produce appropriate amounts of hormones. When those hormones are released into the blood stream, in order for them to accomplish their jobs they need to attach to receptors on tissues and organs all over the body. In GAPS people there are many toxins coming from the gut which occupy those receptors and do not allow the thyroid hormones to attach themselves. As a result thyroid hormones cannot fulfil their jobs – this is called a ‘functional deficiency’. So, the person may have normal amounts of thyroid hormones in the blood, but be hypothyroid.

Autoimmunity is usually present in GAPS people and some of the antibodies may attack the thyroid gland. In most cases this causes low thyroid function, but in some cases it may cause hyperthyroidism.

Working on the GAPS Nutritional Protocol will re-balance immunity and remove most of toxins from the body. So, the thyroid function will start improving. In the meantime, if you have started taking a thyroid medication, continue with it during the programme. In about a year or so on the GAPS diet you may find that you can start reducing your thyroid medication and eventually stop taking it. Iodine paint and seaweed supplementation will help you to restore your thyroid function quicker (please see other questions in the Thyroid section on FAQs).

For those of us on thyroid medication, do we continue with our medications while starting the diet?

Yes, while starting the diet you may want to continue with your medication, particularly if you took it for a while and it is helping. When you are over the die-off and

detoxification and are starting to feel much better, then you may want to gradually reduce your medication and see how you feel. Most long-term medications get built into your body's physiology, so you have to withdraw the drug slowly and gradually, so your body has time to re-adjust to life without it. It is a very individual process and cannot be rigidly prescribed by anyone; only your body knows how fast to proceed. So, you need to listen to your body and move ahead by trial-and-error: for every two steps forward there may be a step back.

There is a lot of talk on-line about low carb diets affecting thyroid function and fertility. I would appreciate your comments on this as some people are concerned about doing the GAPS diet for these reasons.

GAPS Diet does not have to be low-carb, it is up to you what proportions of meat to vegetables to consume. People with thyroid problems recover well on GAPS programme. Restoring fertility in women and men requires less carbohydrates and more animal products, particularly animal fats.

URINARY PROBLEMS

Enuresis (bed-wetting) and polyuria (excessive urination) are common concerns of parents before GAPS and seem to increase during the early stages of GAPS. Please comment.

Please, read my article on *Food Allergy* (Available in the Resources section), which explains this issue in detail. Urine is one of the venues for toxins to leave the body. Abnormal gut flora produces a lot of toxins, which are excreted in urine. This toxic urine irritates the lining of the bladder and causes a low grade inflammation there, so the person gets symptoms of chronic cystitis. The bladder does not want to hold toxic urine, so the person has to empty it frequently. If a child (or an adult) with this condition is fast asleep, then the bladder may empty without waking up the person, hence bed-wetting. Die-off increases levels of toxins in the body, so the urine will become more toxic, exacerbating the problem. It is always important to control die-off by slow introduction of probiotics and various foods.

GAPS Programme will eliminate this problem long term, as it will remove its cause. In the meantime do what works to help the situation: drink plenty of water, supplements of cranberry help to reduce inflammation in the bladder, use various mechanical alarms and devices developed for enuresis, wake your child up a few times during the night and take him/her to the bathroom. Foods high in salicylates and oxalates can make the problem worse, so try to avoid these foods for a while until things get better. When the natural defences of the mucous membranes of the bladder are damaged by toxins in the urine, then any infection can join in easily. So people with this problem get urinary infections frequently which have to be treated with antibiotics. Populating that area with beneficial flora will prevent urinary infections. So, I recommend applying

homemade kefir or yoghurt all over the groin after showers and baths. Probiotic microbes will slowly travel up the urethra into the bladder, protect it and help it heal.

I have been told that having red/purple urine after consuming beetroot is an indication that one has low stomach acid. Is this true?

It has been observed that when people take antacids (drugs which reduce stomach acid), they get red urine after consuming beetroot. Beetroot has pigments in it, which get broken down by extremes of pH. When the stomach produces enough acid it is supposed to break down the pigment. When the pigment is not broken down in the gut, it absorbs and leaves the body through urine, colouring it red. This is harmless as far as we know and should not cause any worry.

Have you had any patients with non-classic or thiamine responsive MSUD (Maple Syrup Urine Disease) benefit from the GAPS diet?

I had no patients with MSUD, and cannot comment.

Do you have any experience with GAPS and nephrotic syndrome?

No, I have no direct experience in treating nephrotic syndrome. It can be caused by many different factors and it is essential to identify the cause and deal with it appropriately.

VERTIGO

Is vertigo common in GAPS patients? Will it improve on the GAPS programme?

Yes! Vertigo happens in many GAPS people because of toxicity in the brain altering the sensory perception. Another problem for these people is overproduction of histamine (many pathogenic species of microbes in the gut produce histamine). Excessive release of histamine drops the blood pressure down and causes vertigo, dizziness and fainting episodes. GAPS programme will change the gut flora, reduce histamine production and reduce the toxins reaching the brain.

VITAMINS & MINERALS

Will my child get enough calcium on the GAPS diet? Do we need to supplement calcium?

There is plenty of calcium in nuts, particularly almonds, meat broth and vegetables. When fermented dairy are introduced there will be even more calcium in the diet. Calcium has to be balanced with other minerals, particularly with magnesium. Supplemental calcium usually causes deficiencies in many other minerals, as it chelates them and does not allow them to be absorbed. That is why I do not recommend calcium supplements. When you get calcium from natural foods you get it in combination with

many other minerals and other nutrients, which allow the body to use them all appropriately.

Calcium works in opposition to magnesium in the body. GAPS patients are usually deficient in magnesium. Supplementing calcium will make that deficiency worse with serious consequences.

What causes leg cramps in GAPS patients and what should be done if this is a common issue?

Magnesium deficiency causes leg cramps. What causes magnesium deficiency? Many factors: toxins from the gut, mercury, lead, any other toxic chemical accumulating in the body, nutritional deficiencies, infections, etc. But the number one cause of widespread magnesium deficiency in the population is consumption of processed carbohydrates, sugar in particular. GAPS diet removes processed carbohydrates and includes foods rich in magnesium. Many people use supplements of magnesium, which may or may not work, as there are many factors involved in magnesium metabolism in the body. Fat soluble vitamins A, D, K and E are one of the most essential nutrients for the body to be able to absorb and use magnesium from food or supplements. To supply these vitamins we need animal fats: fats on meats, butter and sour cream. In order for magnesium to work it needs other vitamins, minerals and amino acids, as they all work as a team. So, diet as a whole is the most effective treatment.

I know that you warn against taking calcium as it can cause the depletion of other minerals in the body as it chelates. What can someone do to make sure they get enough calcium when they cannot tolerate any of the calcium rich foods like leafy greens, nuts or fermented dairy?

Please look at other questions answered on this topic. There is no need to worry about calcium, it is present in most foods and meat can be a very good source of calcium in a good balance with magnesium. Bone broth and vegetables will add more.

It seems as though many GAPS patients are mineral deficient. Do you ever find it necessary to supplement with minerals or is it better to just follow the diet alone? Is there a concern of throwing other minerals off balance if one supplements zinc, for example, when there is a known deficiency?

There is far more to mineral balance in the body than just supply. Many people get plenty of minerals in the diet but cannot assimilate them because of deficiencies in vitamins (A, D and K in particular) and toxicity. GAPS Nutritional Protocol over time will work on all aspects of mineral balance in the body. But in the initial stage it may be helpful to supplement a full spectrum of minerals in some natural form. There are some conditions where selected minerals need to be supplemented, for example zinc in eating disorders.

WARTS

After over a year of being gone, my warts have come back on the GAPS diet. How do you suggest handling these?

In my experience it is due to the general pH shift in the body: when we get too alkaline, warts and other viral infections thrive; when we get too acid, yeast thrives. To shift your pH try to avoid fruit, particularly citrus, nuts and chocolate for a while and see if that makes a difference. When warts appear, use a standard topical salicylic acid preparation (it is sold in pharmacies under different brands around the world). 35% food grade hydrogen peroxide also works well of fresh warts (apply a drop and let it dry; keep applying twice a day until the wart is gone). Old protruding warts are best tied-off: use a strong cotton or silk thread, make a loop and tie it tightly on the neck of the wart; the thread will stop the blood supply to the wart, so it will dry and fall off in a few days (to speed the process up you can apply 35% hydrogen peroxide to this wart as well).

Is there a connection between GAPS and moles? Does GAPS help with Chronic Epstein Barr Virus?

Moles are brown spots on the skin (sometimes raised); many we are born with and some appear later in life. It is not clear what causes moles, but there may be a connection with viruses (papilloma virus in particular which causes warts). We all have dormant viruses living in our bodies (herpes family, papilloma virus, etc); some we acquire even before we are born. Epstein Barr Virus is part of herpes family; it is a resident virus in most of us. There is no need to fear resident viruses as long as you keep your immune system in good shape. You cannot get rid of your resident viruses, they will always be with you. So it makes sense to look after your immune system.

GAPS people have compromised immune systems, so is not unusual during die-off for your resident viruses in the body to get active, so you can get a cold sore, or shingles, or warts and moles. When your immune system gets stronger with the GAPS Protocol, it will take them under control.

Keep in mind that citrus fruit, nuts, chocolate, and coffee (and too much of any fresh fruit) shift the balance in your immunity and allow the viruses to get active. Meat/bone broth, hot rich soups and stews with animal fat will do the opposite: they will allow your body to bring the viruses down. Supplementing an amino acid Lysine will also help to bring the viruses down: an adult usually needs 4-6 grams a day, a child about half that dose.

WATER

How much water should be consumed? Should anything be added to the water?

Water should be drunk between meals, as too much water with meals interferes with

digestion. With meals I recommend to drink meat stock with some sauerkraut juice or homemade yogurt/kefir, adults can have a glass of dry red wine. The meat stock and the wine are good digestives. I do not believe in commonly published recommendations, which state that everyone should drink 1.5-2.5 liters of water every day. The water requirement changes from day to day, depends on what the weather is like, how we feel on that particular day and what activities we undertake. Your body will tell you how much water you need on any given day by making you feel thirsty. If you are not thirsty, there is no need to force those litres of water down yourself, despite what popular books may say. A lot of thirst is a sign of too much acidity in the body; many toxins are acids. Water will only dilute the acids; you may drink lots of water and still feel thirsty. That is why it is important to take steps to alkalize your body: a 1/2 teaspoon of natural unprocessed salt added to water, a tablespoon of apple cider vinegar, a piece of lemon squeezed into water, eating a fresh rip apple or a fresh juicy carrot, drinking freshly pressed vegetable/fruit juice will alkalize your body and quench the thirst more effectively, than just drinking water.

We have been drinking alkaline water and the family has done fine, but I have had severe bloating and burping and constipation. Is this something my system will adjust to with a little more time or does this mean that I am too alkaline?

Alkaline water attacks yeast. Our stomach always has some yeast in it, it is a normal inhabitant of the healthy human stomach. It is possible that you have an overgrowth of yeast in your stomach and getting a die-off reaction. I suggest going onto the GAPS Introduction Diet for a few months without drinking alkaline water. When your symptoms subside, you can try to introduce it very slowly and gradually.

I have extreme dryness in the mouth that does not go away despite of drinking. What that condition is associated with and what could be helpful to resolve it? I have been on GAPS Protocol for 2.5 years.

It is possible that the pH in your body is too acidic, which always makes us thirsty and gives the dry feeling in the mouth. Try to take a glass of water with 1 teaspoon of bicarbonate of soda dissolved in it, see if that helps. Take it twice a day on a fairly empty stomach. If you are doing enemas, add 1-2 teaspoon of bicarbonate of soda per litre into the water for your enemas. Juicing and reducing the toxic load in the body will alkalise you and remove this feeling.

Any thoughts on alkaline water? It seems to be the health craze lately and I'm just wondering if it's worth the investment? Also what type of water filtration do you recommend?

Yes, there is active promotion of water ionisers with some impressive testimonies. In my experience some people benefit, while some do not. In the initial stages of drinking

alkaline water most people report an effect on kidney function: the urine output is reduced, urine becomes very concentrated and urination can be unpleasant. This effect is usually temporary, but to reduce it build the alkalinity in the water and the volumes of this water consumed gradually. Before investing in the device (which is expensive) it is advisable to buy the alkaline water from a local distributor: many pharmacies and clinics buy the machine and sell the water in bottles, which is very affordable. If after 1-2 months you feel that this water really helps you, you may consider the investment in the machine.

Water filtration: there are many methods and devices, from simple carbon filters to very complex and expensive solutions. Majority of people I know use an under-the-sink carbon filter; a separate tap comes from it. It is affordable and does provide acceptable quality water, removing fluoride, chlorine and pesticides. I do not recommend using distilled water or reverse osmosis, as there is a concern amongst scientists that this water loses its 'life' and becomes 'dead', because all minerals and salts are removed. Water is a universal carrier of information and requires minerals and salts to maintain its crystalline structure and carry information.

What is your opinion of the algae problem in drinking water? How can it be removed?

Algae have a purpose in nature, they are cleaners. They usually grow in water that has been contaminated by agricultural chemicals, particularly artificial fertilizers. Algae absorb toxins and remove them from the water. When the water has been cleaned algae naturally disappear. Majority of algae species are harmless and there is no need to fear them. Algae which produce toxins usually smell of rotting vegetation, and the waters that they grow in are seriously contaminated. I cannot imagine anyone swimming in such water or drinking it. But if there is a bit of algae in the river or lake which otherwise look and smell healthy, I wouldn't worry about it.

If your drinking water supply smells of rotting vegetation you should not drink it at all. The issue here is not just algae but the toxins that the water is contaminated with (that is why algae are there in the first place). I would find an alternative water supply rather than trying to 'clean' the algae out. Algae are only a symptom of the bigger problem, so don't fight the symptom, find the problem itself.

WEIGHT

I seem to be gaining weight specifically in my hips, thighs and even my calves. It seems like it may be fluid retention, especially in my calves. What could be causing this? Is there anything I should do? If it is not fluid, why would I be gaining so much fat in these certain areas?

It is natural for women to lay fat on their thighs and hips. In our modern world it became fashionable for women to look like little boys: with narrow hips and small bottoms. This is not normal. So, it is possible that your body is re-structuring itself into feminine shape

you are meant to have. Swollen calves are a different matter: this is likely to be water retention, which is usually due to toxicity in the body. Try to do a few coffee enemas to clear your liver, and start juicing. Make sure to add plenty of greens to your juices: dandelion, dill, stinging nettles, coriander, parsley, sheep sorrel and sage (add these greens to a nice sweet tasting juice from a mixture of carrots, apples, pineapples, a little celery and beetroot; then add 2 raw eggs and some sour cream, whisk and enjoy). Apart from helping you to detoxify, the juices will boost your minerals to assist the kidneys in water removal.

After reading your book about dietary fat, cooking fats, and toxins stored in body fats, I now am wondering what your understanding of belly fat on individuals is?

Fat is the preferred source of energy for most of the cells and organs in the human body. Body fat is stored energy. There are two main depots of energy in the body: under skin fat and visceral fat (belly fat).

Under skin fat is an endocrine organ producing certain hormones essential for human physiology, such as leptin, resistin and cytokine TNF alpha. Women normally have more under skin fat than men, as female hormones lay the foundation for feminine fat storage on hips, breasts, buttocks and thighs, giving women their beautiful shape. Male hormones favour storage of under skin fat on the upper body, giving men their masculine shape. Regular consumption of sugar, flour and other processed carbohydrates alters hormonal balance in the body: that is why nowadays we see many women with male-type bodies and many men with feminine looking bodies.

Belly fat is largely a storage space for quick energy: this energy is stored inside the abdomen around inner organs: intestines, bowel, stomach, liver, kidneys, etc. Normal amounts of visceral fat are essential to support and insulate our inner organs. Processed carbohydrates in the body are quickly converted into fat. Some of this fat is stored under skin, which has a limited storage capacity. But if the carbohydrates keep coming, excessive fat is largely stored in the abdomen. Alcohol is a form of energy, which is quickly converted into fat and stored almost exclusively in the abdomen, giving the person a “pregnant” look. Fat attracts water: almost a quarter of belly fat tissue can be stored water. Men (and women) who drink too much alcohol regularly without consuming too much carbohydrates have large, hard-to-touch bellies with very little under skin fat – a “pregnant” belly; a belly full of fat and water. Men and women who indulge in both (too much alcohol and processed carbohydrates) will have large hard bellies and too much fat stored under skin as well.

The obesity epidemic is caused by processed carbohydrates which came to dominate our modern diets. Natural animal fats (butter and fats in eggs, meat and fish) balance our hormones and go into our bodily structure. Unfortunately, our modern diet is very low in these nourishing fats. Eating lots of carbohydrates while depriving your body of essential-to-life animal fats lead to obesity, diabetes, heart disease, cancer, auto immunity and most other modern plagues.

Am I going to lose weight on the GAPS diet? I am already underweight and find it very difficult to gain weight.

Regular consumption of grains and processed carbohydrates causes water retention in the body. As you stop consuming these foods, you will lose that excess water and hence lose some weight, which usually happens in the first few weeks. Without the water retention you will get to your real weight and size, which will show you the real extent of your malnutrition. As you follow the GAPS nutritional protocol your digestive system will start absorbing foods properly and nourishing you; you will start building dense bones, healthy muscles and other tissues and organs and gaining weight as a result. You may remain fairly slim for the rest of your life (as it may be your constitution), but you will become strong, vibrant and full of energy.

I have been steadily losing weight for many months and I feel like I do not look healthy. What suggestions do you have for patients losing too much weight?

Please view the answer above to "Am I going to lose weight on the GAPS diet? I am already underweight and find it very difficult to gain weight."

WOMEN ISSUES & HORMONES

Is PMS a sign of digestive issues? Can the GAPS diet help with common infertility issues such as endometriosis and PCOS? Some women report irregularities and loss of menstruation during die-off. Is this cause for any concern?

Digestive system is always involved in PMS, PCOS, endometriosis and other hormonal abnormalities: toxins produced by unhealthy gut flora interfere in the delicate balance of hormones in the body - some hormones become low or insufficient, other hormones become excessive. When the die-off is initiated, more toxins are released into the bloodstream, so your typical hormonal symptoms these toxins cause, become more acute. Indeed the menstruations may become irregular and PMS may get worse. Die-off is temporary, so these symptoms will pass. Just keep them under control by gradual introduction of probiotics, fermented foods and food items, which you may be sensitive to. I do not specialise in infertility or other female reproductive problems, but I have many patients, who started the GAPS Programme, and their first symptoms to go were symptoms of PMS. More chronic conditions such as endometriosis and PCOS take longer to remedy, but GAPS Programme works well for many women with these conditions as well. In order to make steroid hormones (and all sex hormones are steroids) we need plenty of cholesterol and animal fats. So, for all these conditions it is essential to have high-fat and high-cholesterol diet, where main sources of fat are animal products: meats, eggs, fish, butter and cream. Women, who are trying to conceive, should consume 2 cups of homemade sour cream per day, as well as 4 fresh eggs and plenty of fatty meats and fish. As the gut flora becomes more normal and the gut wall heals, the toxins will disappear, and your hormonal system will come back to normal balance.

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These statements have not been evaluated by the Food and Drug Administration. This information is opinion and is not intended to diagnose, treat, cure, or prevent any disease.

Is it realistic for me to think that GAPS could help my body naturally increase its progesterone level?

Yes, GAPS programme will re-balance your hormones to normal production. Progesterone has to be balance by other hormones, and only your body knows how to do that and in what proportions. Try not to interfere in this process by taking any hormonal preparations: drugs or natural.

Can your spouse pass bad bacteria to you? Should any precautions be taken? My husband will not follow the diet and I know he has gut issues and I am trying to heal my own issues.

We all pass microbes to each other on contact. But, if we live in fear of that, then our lives will be very difficult. Mother Nature gave us immune systems in order to deal with microbes. As long as we keep our immunity strong there is no need to worry about who we are in contact with. I would not want you to banish your husband out of the house in order for you to heal. Just work on boosting your immunity and his: maybe he will agree to take probiotics and cod liver oil capsules? If both of you increase animal fat consumption with your meals, then your immunity will be stronger and more able to deal with invaders.

Should any precautions be taken when choosing feminine care products?

We need to be very careful with all personal care products! Please, read about it in the *Detoxification* chapter in my book. It is particularly dangerous to use any personal products in the groin. I recommend that women wash themselves with water only without using any soap, and never put any chemicals in that area. Apply your homemade yoghurt or kefir all over your groin after a bath or a shower to populate that area with beneficial flora. Once the good microbes are there, they will not allow any pathogens in. It is particularly important for pregnant women to do this, as they will pass their vaginal flora to their babies at birth. The best thing to put on your child's nappy area is your homemade sour cream. If there is allergy to dairy, then use any cold pressed oil (olive oil, coconut oil, etc) or animal fat (lamb fat, pork fat, goose fat, etc).

My doctor recommends that I avoid meat and dairy to help endometriosis, because meat and dairy contain oestrogens. What should I do?

Just like us, all animals produce natural hormones, these hormones are present in all animal foods (meats, fish, eggs and dairy) and are of no concern to human physiology. We have been exposed to these hormones for millions of years in our diet and our bodies know how to deal with them: they just get digested and assimilated like any other protein. The mainstream recommendation to avoid meats and dairy is misguided and is not based on any reliable scientific evidence. In order to have healthy reproductive systems women must avoid xenoestrogens (synthetic oestrogens), which come from personal care

products, contraceptive pill, HRT, many other drugs, many man-made chemicals in the environment, and processed foods; they disrupt our normal hormonal balance and can cause infertility, endometriosis, PMS and other reproductive problems. It is unfortunate that doctors give women no advice on avoiding xenoestrogens, instead they recommend to replace meat with soya, which is full of xenoestrogens.

As a woman in 50s I have found the use of BHRT (bio-identical hormonal therapy, both oestradiol and progesterone) to be critical in getting through the day and having a decent quality of life on so many levels. If I understand correctly from your FAQs and the book, you are not an advocate of HRT. Having been on the GAPS Diet for 2 months and on BHRT for 3 years, I wonder if you have any experience with women tapering off BHRT after some mileage on the diet? What does that look like? What are your thoughts on BHRT?

I do not support the drug-based standard HRT.

But BHRT can be very helpful, particularly during menopause. Many women, particularly those who eat conventional Western diets, have such terrible menopausal symptoms that without BHRT they say that 'life is not worth living'. Bio-identical hormones, particularly progesterone, can make a huge difference, particularly at the beginning of the therapy. Trouble is that our hormones work as a team and changing one or two of them will affect the whole hormonal balance. So, after initial improvements new symptoms appear, and the hormonal prescription often needs to be constantly changed and monitored (which can be tricky and expensive). Also many women understand that, helpful as it can be, taking any kind of hormone (including bio-identical) permanently is not natural. Menopause is not a disease, it is a natural normal stage in a woman's life and it should not be so troublesome.

GAPS Nutritional Protocol has helped many women to remove their menopausal symptoms naturally: remove or make them bearable. As your metabolism normalises menopause becomes normal, and healthy normal metabolism brings many other benefits for your health.

If you have been working on the GAPS Nutritional Protocol (while being on BHRT) and your health has been improving, you may want to come off the hormones at some point. It is a very individual process of trial-and-error; you need to listen to your body and work with it. When you feel well and strong enough to start reducing the dose of your hormones, reduce them gradually and observe your symptoms. Your body will let you know how fast (or slowly) you should reduce the dose. Try to reduce by 1/10 of your daily dose at a time once a week. If your body copes well with it, you can reduce the dose faster. Having reduced the dose gradually, many women manage to stop the BHRT completely, while some women have to stay on a lower dose for longer. The woman herself has to be in charge of this process, as no health practitioner will be able to monitor this process as effectively as your own body can monitor it. So, trust yourself and listen to the signals your body gives you.

Is henna safe as a hair die?

I am not aware of any research to why natural henna without any additives should not be safe. It is an herb, which has been used for millennia by people in India and other countries as a natural remedy for scalp problems, dermatitis and dandruff. The fact that it also dyes your hair is a mere side effect and can be used as a bonus.

What do you recommend for bacterial vaginosis that came back after an antibiotic cream given to me by my obstetrician / gynaecologist?

You need to restore your normal vaginal flora. To do that insert 1-2 capsules of a good quality probiotic into your vagina at bedtime for a few nights; and apply homemade kefir all over your groin area daily after a shower or a bath.

After doing the diet for a year and seeing a lot of healing, just before my last menstrual cycle I got very severe fatigue, brain fog, radiating pain, stiff neck and headache. I never had these symptoms before and I am at a loss as to what could have caused it. Any suggestions on managing this new symptom?

It is possible that you got a viral infection. Try to take L-lysine 3-4 grams per day as a supplement and remove citrus fruit, nuts and greens from the diet for a while; try to go back to rich soups and stews with sour cream and kefir. Another thing to do is to find a good homeopath and see if that can help.

Throughout the year being on GAPS I have noticed that when I am eating dairy or cheese, my breasts get tender and swell a week before menstruation. I also have more sensation in my abdomen. When not on dairy, my breasts have no change in shape or sensation. Is the swelling and tenderness a sign that I am not tolerating dairy or are these typical signs of a normal menstruation cycle?

There are two issues here. First: if the cows are pregnant when milked, they have higher levels of hormones in their milk, which can cause swelling and tenderness in your breasts. This happens at the end of summer in particular - at the beginning of the cow's pregnancy. As the cow's pregnancy progresses and you continue consuming her milk, your body makes adjustments to the levels of hormones in the milk, and the tenderness in your breasts should disappear.

Second issue: various toxins coming out of the gut can cause tenderness in the breasts, particularly in a few days before menstruation. Increased die-off often brings these symptoms. It is possible that in your case you have both issues at work. Try to reduce your dairy consumption before menstruation and see if that makes a difference. When the menstruation is over, you may find that you can return to eating your dairy products without any symptoms.

You state: 'it is particularly dangerous to use any personal products in the groin'. Does this mean you do not recommend any internal products during menstruation?

Absolutely not! It is physiological to just let the menstrual blood flow out freely, so use plain cotton wool or pads, but not tampons.

What do you recommend for birth control?

Please read a book by Katie Singer *Honouring our cycles: a natural family planning workbook*. Every woman has to acquaint herself with her menstrual cycle. When you know when your monthly ovulation is, you can avoid those days or use barrier methods during those days. A woman's egg, when it 'hatches', only lives 2 hours. So, you have to make sure that there are no active sperm cells around the egg in those 2 hours. The sperm cells live 2 days. So, by knowing when your ovulation is you can calculate the few days every month, when you can conceive.

Those women who have irregular cycles may have to use barrier methods for longer every month.

There is a lot of talk on-line about low carb diets affecting thyroid function and fertility. I would appreciate your comments on this as some people are concerned about doing the GAPS diet for these reasons.

GAPS Diet does not have to be low-carb, it is up to you what proportions of meat to vegetables to consume. People with thyroid problems recover well on GAPS programme. Restoring fertility in women and men requires less carbohydrates and more animal products, particularly animal fats.

I would like to know your advice or opinion about breast cyst. I read different articles that recommend avoiding dairy products and saturated fat for fibrocystic breast.

Breast tissue is very responsive to estrogenic stimulation, and breast cysts form as a result of this stimulation. Many man-made chemicals are estrogens, called xenoestrogens: many pharmaceutical drugs (particularly the pill and HRT), personal care products (particularly deodorants), cleaning chemicals, plastics, decorating materials, etc. Please, research xenoestrogens – these are the first things to remove from your life immediately. Milk has quite a substantial amount of estrogens which the cow produces, particularly when the cow is pregnant. So, if you have fibrocystic breasts it is a good idea to remove dairy until the condition has cleared. Animal fat stores many toxins, including xenoestrogens. That is why a person with fibrocystic breasts should have organic and grass-fed meats and fats and avoid conventional meats and fats, until the condition clears.

Keep in mind that estrogens from dairy and meats/fats are hundred times safer than man-made chemicals – xenoestrogens. So, it is the chemicals you have to remove first and foremost. And when your breasts have recovered, you can re-introduce organic dairy.

Do you know anything about vasopressin / ADH (anti-diuretic hormone) and how it relates to GAPS? Do you think temporary use of the synthetic drug would interfere with my gut healing? Do you think the GAPS Diet would eventually normalize my vasopressin hormone levels naturally? If so, any ideas about how long it could take?

Vasopressin or ADH is a hormone produced in the hypothalamus and stored in the pituitary gland; it conserves water in the body and recently it has been discovered to play a part in social development, memory and sleep. There are situations when vasopressin has to be supplemented for life, such as after removal of the pituitary gland (if there was an adenoma or another tumour there). There are some other less drastic situations when this hormone has to be supplemented. If you have been prescribed this hormone continue taking it while following the GAPS Nutritional Protocol. Monitor your levels of the hormone with your doctor and see what happens while you are on the GAPS Programme. It is possible that in your personal situation (depending on what it is) your dose can be reduced or even at some point discontinued.

MISCELLANEOUS/OTHER

Please comment on the idea that GAPS Diet has no understanding of high or low metabolism. How metabolism could be viewed individually, is metabolism not related to intestinal health?

Please read my article ‘*One man’s meat is another man’s poison*’. Metabolism is a very complex area; your body adjusts your metabolism depending on what you are doing, the season, the weather, your age, the time of day and hundreds of other parameters. And of course intestinal health has a lot to do with everything in the body, including metabolism.

Is there any validity to metabolic typing?

There is no doubt that we are all different genetically. Some of us come from northern stock, where for millennia meat and fish were the staples. Some come from southern stock, where more fruit and grains were consumed. Some come from areas where dairy have been a staple for thousands of years, some have no tolerance of dairy and their predecessors never consumed milk. No matter what diet you are trying to follow, you have to find your own personal comfort zone in terms of ratio of different foods. The important point is to eat foods freshly prepared at home, as none of us on this planet has evolved to eat modern processed foods.

In the Metabolic Typing you have to identify, what type you belong to: “protein type”, “carbo type” or a “mixed type”. What doesn’t seem to have been taken into account is the

fact that apart from genetics our state of health is important to take into consideration. Many people in this world are addicted to sugar and other processed carbohydrates and have many health problems due to that. Their personality reflects their poor health and sugar addiction, so they may mistakenly identify themselves as “the carbo type” in Metabolic Typing. Regardless of what type you decided you belong to, you have to start from a low carbohydrate diet and then slowly proceed from that introducing carbohydrates. If you are addicted to sugar and have candida overgrowth, in this initial stage you will suffer from die-off and hypoglycaemia, which will make you feel very unwell. So many people with these problems just decide that they are the “carbo type” and revert back to their high carbohydrate diet with all the processed foods and sugar. Get yourself well first with the GAPS type diet, then your healthy instincts will come back and you will be able to find your comfort zone.

Can broth / soups worsen digestion by diluting gastric juices during meals? If liquids worsen bloating during meals what would you advise?

Meat stock with some sauerkraut juice added (or freshly pressed cabbage juice) stimulate stomach acid production and generally are a good digestive. Drinking it 10-15 minutes before your meal, rather than with the meal, will help you to produce stomach acid and prepare for the coming meal.

Do you recommend kinesiology for testing the suitability of supplements?

Energy testing, such as kinesiology, relies heavily on the skill of the practitioner and may not be 100% accurate. The reaction your body may produce on testing can reflect the die-off or detox. So, testing may confuse you. To succeed in the programme you need commitment and determination, so anything that plants doubt in your mind may not be too helpful.

Which method of eating is least stressful to the body, small meals regularly or three or less square meals?

Small regular meals are better for people with blood sugar problems, such as GAPS people. If you include plenty of animal fat into every meal, then your blood sugar level will be steady through the day. If you work and cannot eat all the time, then snack on raw butter mixed with a little of raw honey to taste (take a jar with you to work or have it in the car). You can also snack on coconut oil and fresh nuts (when your gut is ready for nuts). For healthy people without blood sugar problems, it is a good idea to get hungry before their main meals, so snacking is not recommended for them.

I've heard from a recent talk you did that we should have a minimum of 40% of our diet as fat. Is this 40% calories, or volume?

This was probably said in a particular context. It is simply wrong to try and calculate composition of your meals, or calculate when you should eat and how much. These

things need to be done instinctively, from the signals your body's biology gives you, as your body has infinitely more wisdom about what it needs, than our mind and intelligence will ever calculate. Nobody in this world can tell how much protein your body needs at any particular moment of your life, or how much fat, or how much magnesium, or calcium, or zinc, or how much sleep, or how much sunshine! Only your body knows that, so listen to your body. Your bodily requirements change all the time, depending on what you are doing, what the weather is like and what state of health you are in. If it is cold and damp, and you feel run down, your body will need lots of fat and protein, so eat a hot rich meal (a stew or a roast). If the weather is hot and you feel hot and dry, a stew is the last thing you may want to eat; you may want a salad with some light meat or fish. Food needs to be enjoyable and appropriate for your body's requirements at every meal; and the way your body tells you what it needs is by creating desires. Every time ask yourself: what do I really fancy to eat now? And your body will come up with an answer immediately, including how fatty this food should be.

Since going on the GAPS diet I have an acid taste in the back of my throat. What do you recommend to help with this?

Have fermented vegetables with your meals and fresh vegetables too (salads made with juicy vegetables, such as lettuce, tomato, cucumber, onion and greens). They will add enzymes and help your stomach to handle food. The reason for this acid taste is likely to be reflux, as your stomach may not be producing enough acid and enzymes at this stage.

I understand that GAPS patients have a lot of food sensitivities/allergies and some of them are identified during the Intro diet and eventually resolved as the gut lining heals. What about the patients that have so called environmental allergies, i.e. reactions to pollen, dust mites, etc? Should they expect their issues to be resolved only after their gut completely heals?

GAPS Nutritional Protocol re-balances immunity, so its major arms (Th1 and Th2) get back into balance. It is an imbalance between these parts of the immune system that lead to allergies. I see allergies to dust mites, pollen, animals and other environmental influences disappear in my patients all the time. But if a patient goes back to eating junk food and sugar, these allergies can come back.

I have read that people are healing on a zero carb diet (meat, fat, eggs). Some even claim they saw no healing on GAPS but are healing on a zero carb diet. What is your thought on this type of diet, particularly how it relates to gut flora?

I do prescribe a no-plant diet for some patients, where they do the Introduction diet without any vegetables or fruit at all for a few weeks. It helps children with hyperactivity and diarrhoea, and people with severe digestive problems with diarrhoea and blood sugar problems. Everybody is different and it is important to fine tune the GAPS diet for your individual situation.

What is your opinion on using Dr Brownstein's iodine protocol to detox fluoride, chlorine and bromides?

I have no experience with this protocol and cannot comment.

I recommend iodine paint as a form of testing and supplementing iodine in the initial stages of the GAPS Programme (please see other questions under **THYROID**). Later on, when seaweed is introduced it will supply iodine in a natural form. In order to use iodine properly the body needs many other nutrients, such as vitamins A, D, K, B group and other. The GAPS diet will remove nutritional deficiencies naturally through food, so iodine can be used by the body efficiently. At the same time under GAPS Nutritional Protocol the detoxification system in the body starts working again, so toxins such as fluoride, chlorine and bromides can be removed naturally and safely by your own body (without you having to figure out all the immense chemical complexities of how to do it).

My friend was exposed to a high dose of chemicals at work and has brain injury from it (symptoms like a stroke). Would he benefit from the diet?

I would try it. Every situation is individual and there is no way to predict if the programme will or will not work.

What are your recommendations for chronic congestion? Chronic coughing?

Lungs are one of the major detoxification organs in the human body. Chronic problems with lungs mean that lungs are detoxifying too many poisons which they have not been designed to handle. Usually these poisons come from the gut, so the gut lining needs healing. GAPS Nutritional Protocol will do that for you. Other sources of toxins need to be considered as well: smoking active or passive, industrial air pollution or other air-borne chemicals, which you may be exposed to at work or at home (perfumes and scented domestic chemicals are often a culprit).

When the body is constantly exposed to particular toxins in the lungs, it employs common viruses, bacteria and fungi to help it with cleaning. So, the person becomes prone to chest infections, sinusitis and other infections in breathing passages. Every infection helps the lungs and mucous membranes to clean up by causing production of lots of mucous and other liquids to flush the toxins out.

Common worms are an important cause of chronic coughing: part of their life-cycle is for the larva to burrow through the gut lining, get to the lungs and then travel up the breathing passages to the throat to be swallowed again. This causes irritating dry cough, particularly at night. To deal with worms, please read the relevant section in the FAQs.

I wonder what causes bad smelling body odour. Is this to do with toxins or bad bacteria? Can GAPS diet stop bad BO?

Body odour is due to toxins eliminated through sweat and to an overgrowth of particular microbes in the armpits and other sweaty places, which feed on those toxins. As most toxins in our bodies come from the gut, cleaning that area with the GAPS protocol will help. Topically applying fresh lemon juice daily to the armpits instead of a deodorant helps. Also, 3% hydrogen peroxide can help: take a tiny amount and apply all over the armpits; if it is too strong dilute it with water.

Why are eggs so difficult for many GAPS patients to handle?

Eggs are very easy to handle for the majority of people. When there is a true allergy to eggs you have to avoid them and use egg-free recipes in my book. Many people with egg allergy only react to the egg white and can have egg yolks. Use the Sensitivity Test to see if you are one of those people. People who get flatulence and other digestive symptoms from eggs have abnormal gut flora and need to work on changing it. Raw eggs are much easier to digest than cooked eggs, so start from raw if eggs cause you trouble.

Do we need to be concerned about the high amount of polyunsaturated fatty acids (PUFA) in chicken fat and skin?

No, there is no need to be concerned about that. As part of the diet use all animal fats you can get: beef, lamb, pork and poultry.

Can you make any recommendations on sulphur deficiency and/or low CG syndrome, as mentioned in the recent WAPF Journal?

Sulphur is involved in hundred of functions in the body and one of the most important ones is detoxification. GAPS people are toxic, so their detox systems over-consume sulphur. At the same time GAPS people often have microbes in the gut which love sulphur reducing its absorption from food. That is why when we test GAPS people for sulphur in most cases we find deficiencies. Low CG (Cystein and Glutathione) syndrome is not a diagnosis, it just states the fact that sulphur is low in the body and, as a result, detoxification is problematic.

GAPS diet provides lots of food rich in sulphur. At the same time it deals with the abnormal gut flora, so sulphur has a chance to be absorbed properly. On top of that you can supplement sulphur in the form of MSM (methyl-sulfonyl-methane). Make sure to start from a tiny dose and gradually increase, as it causes a detox reaction. The top dose is very individual; people usually choose the dose that they feel well on.

Is it true that coffee mimics the gluten protein and if a person is gluten intolerant, they will react to coffee the same way as to gluten? If so, should coffee enemas be avoided as well by gluten intolerant individuals?

Coffee is generally gluten-free, though it can be contaminated with gluten during processing in the food factories. In any event, the amount of gluten there will be very

small and has never been any issue in coffee enemas. The vast majority of people are intolerant to gluten because their gut lining is damaged and lets gluten and other proteins through partially digested. This is not a true allergy with immediate dangerous reactions, such as anaphylactic-type allergy. So, there is no need to worry about microscopic amounts of gluten that may be in food. Just focus on healing and sealing the gut lining, and your food will start digesting properly before absorbing; and that includes all proteins, not only gluten.

Can someone with polyps, diverticulitis, strictures and other physical abnormalities be helped by the GAPS diet or would they require surgery?

Every situation is individual. If there is an emergency (for example bleeding from a polyp or malignancy), then perhaps you will need surgery. If there is no emergency, then GAPS programme can change a lot in your gut and remove the need for surgery. In any event, it is important to follow the diet in all of these conditions. We have a wonderful process of cell regeneration in our bodies. Most cells in the body have short lives; they get shed off and replaced by newly-born healthy cells all the time, ensuring that your body can re-structure and re-build itself. So, physical abnormalities are not cast in stone, the body can dissolve and remove them, as long as you remove the cause of the problem and provide the body with all the tools to heal itself.

Do you have any experience with benzodiazepines withdrawal and the GAPS diet?

Yes! Most psychotropic medications are addictive, though they may not be listed as such. Benzodiazepines are very addictive and need to be withdrawn slowly and carefully, and only when the body is ready to be without them. To prepare the body for the withdrawal follow the GAPS Programme for a few months. When you feel well, start reducing the dose of the drug by small increments, giving 1-2 weeks between the dose reductions. If you have been taking a few drugs, start from the one which you feel will be the easiest to remove. Remove one drug at a time slowly. Many people try to remove psychotropic drugs too quickly and run into trouble: the symptoms of withdrawal of the drug may look very much like the symptoms of the disease itself, so you are likely to be put back on drugs by your doctor.

To help in this process I recommend boosting your neurotransmitter production: serotonin, dopamine and GABA. There are very good supplements on the market to help you with that: 5HTP for serotonin, tyrosine for dopamine and a group of amino acids for GABA. All of these substances have to come with co-factors: vitamins and minerals. The doses can be very individual, so start from half the recommended dose and gradually increase to find your comfort zone. Get to the full dose of these supplements first before starting to withdraw the drugs.

I'm wondering if the GAPS diet is suitable for a person with cerebral palsy. Will it benefit them or help with minor seizures and brain confusion, depression and mood swings?

Yes, it can be useful for cerebral palsy. Of course the condition is not going to disappear, but the person will be healthier physically and easier to look after. The seizure frequency may go down and the mood becomes more stable.

My question regards haemochromatosis. Is there a way the diet would help even though it is a genetic disease?

Yes, haemochromatosis is considered to be one of the commonest genetic conditions, and the only effective treatment seems to be regular bloodletting. Look at other symptoms in the person: if there are also digestive problems, allergies, joint pains or skin rashes try the GAPS Protocol. Unless there is diarrhea, I would start from the Full GAPS Diet. I had no patients with this condition, so cannot offer any experience. But Mother Nature is full of surprises, so give it a try.

Reading the GAPS book I know the difference between refined and unrefined oils and why refined oils can be harmful. I recently found a source of palm oil that is refined but is not hydrogenated. Does this mean it is safe?

I would speak to the manufacturer and try to find out what they mean by ‘refined’, what exactly was done to the oil. If it was heated or pressure was used, or chemical solvents, then I would avoid it. If the oil was just filtered cold and nothing industrial was used, then it may good.

I have been following the GAPS diet for quite a while now. For two years I have been eating about 1-4 cups a day of kefir. I started to have diarrhea out of nowhere. So I cut back, but even a ¼ of a cup gives me terrible diarrhea and the urge to vomit. When I don't take any probiotics my stools are fine and as soon as I try again, it starts up all over again. Could I have taken too many? And now have an overgrowth of some of these bacteria? I am not sure how to proceed with the diet.

Everybody is different and we all have a unique gut flora. If kefir or your probiotic do not suite you anymore then stop taking them. Your body is sending you a signal, and you need to listen to it. Observe your body for a while and see what is happening. Please, read my article *One Man's Meat Is Another Man's Poison* in the “Resources” section and try to learn to listen to your body. You may be at a stage when enough healing took place in your body for you to relax with food a bit and divert your attention to other aspects of your life.

We have heard many people discuss episodes of regression while on the GAPS diet. Our DAN doctor told us that the GAPS can break down the biofilms over time, releasing additional toxins. Is this true and is this the cause of regression? If not, what causes regression?

Unfortunately, some DAN doctors see GAPS as a competition. This is very sad, because if they adopted GAPS instead of recommending a gluten/casein free diet, their work would have been much more rewarding. But most importantly many more autistic children would have been recovering! I have seen no end of families who have spent fortunes on DAN Protocol with no success, while precious years have been wasted when their child could have been healed. This is a tragedy, because the older the child is the more difficult it is to pull him/her out of autism; the little ones recover so much quicker! A support of a DAN doctor can be very valuable and helpful, but the basis and the first stage of the treatment for autistic children should be GAPS.

The 'regression' is usually die-off and detoxification of the body. It is temporary, but needs to be controlled by slow introduction of probiotics and fermented foods. I have covered the issue of 'biofilms' in other questions in FAQs.

I would like to know why we sometimes have puffy bags under the eyes and how to address the problem? Lately, I have them all the time so I don't think it's just lack of sleep.

You are right; it is not just lack of sleep. Bags under eyes are due to water retention in the body, which in turn is due to toxicity as toxins hold water and do not allow the body to dispose of it. As you start detoxifying the bags under the eyes should gradually disappear.

I was wondering why rashes occur in some places on the body and not others, e.g. only around the mouth. If around the mouth only, is this true eczema or could it be a reaction to food touching the mouth or perhaps the saliva?

Mouth is a heavily populated area of human body – it has its own microbial flora. In GAPS people it is often abnormal, dominated by pathogens. These pathogens spread outside the mouth and can cause rashes around that area of the face. Here is what I recommend:

1. Stop using all toothpaste and replace it with olive oil: dip your toothbrush into good quality cold-pressed olive oil and brush as usual; rinse with water. This is based on an Aurvedic procedure called 'oil pull' which has a good ability to detoxify the mouth and the rest of the body. Brush with olive oil twice a day.
2. After every meal and at bedtime open a capsule of good quality probiotic on your tongue and let the powder dissolve there. This way you will populate your mouth, throat and upper digestive tract with beneficial bacteria.

What is your take on exercise during GAPS if one has the energy?

Exercise has to be done only with the full agreement of your body. What I mean is that you need to do only what feels good and comfortable. Do not push yourself and do not do 'work outs'. Physical activity must be combined with joy, laughter and other positive

emotions. So, playing games, walking the dog or walking in pleasant natural environments are the most natural ways of exercising.

How long will it take to heal histamine intolerance and how long will it take before fermented veggies can be introduced? Are there any specific supplements you suggest to help with this intolerance?

It is very individual how long it takes to heal. Keep testing if you are getting more tolerant by trying to eat tomato, eggplant or spinach before trying to eat fermented vegetables. I believe that it is the abnormal flora that produces excessive amounts of histamine and also impairs enzymes which break the histamine down in the body.

Do you have any suggestions for someone experiencing gastric dumping? This is usually experienced by gastric bypass patients but I have been diagnosed with it and did not have this procedure.

People with abnormal gut flora often have a fast transit of food through their gut, not only rapid emptying from the stomach but moving too fast through the rest of the GI tract. The reason for this is an inflamed and sensitive gut lining; food irritates it and causes rapid peristalsis. Focus on healing your gut lining with the GAPS Introduction Diet step-by-step. It will sooth and heal your gut lining; as a result your peristalsis will slow down and your gut will stop trying to get rid of the food as soon as it is swallowed.

Do you have any specific recommendations for supplements for an adult that suffers from bipolar disorder as well as social phobia?

The diet is the main treatment; make sure to have plenty of animal fats with every meal. Boosting neurotransmitter production with supplements may help, particularly people with eating disorders, severe insomnia, severe depression, severe anxiety, bipolar disorder and psychosis. Make sure that you have no severe digestive problems at the time! If severe diarrhoea and abdominal pain are present, then no supplements should be given at the beginning of the programme: the person should focus on the GAPS Introduction Diet alone. But if there are no serious digestive symptoms present, then boosting production of serotonin, dopamine, GABA and noradrenalin can help to bring mental symptoms down quicker. For a specific supplementation in eating disorders please read pp. 231-241 in my book.

SEROTONINE BOOSTER

Serotonin is our 'happy' neurotransmitter, it is responsible for being content, calm and cheerful. It is also essential for falling asleep: people, who have low serotonin production may feel exhausted, but cannot wind down and fall asleep. This problem with sleep is typical amongst hyperactive children and children with other learning problems, as well as amongst adults with mental and psychological conditions. You do not need

testing to know that you are low on serotonin production: symptoms of depression, low mood or mood swings, hyperactivity while exhausted, inability to wind down and fall asleep, negativity and tearfulness are good indications. Many GAPS people are unable to produce enough serotonin, as most of its production happens in the gut.

Anti-depressant drugs aim at increasing serotonin levels in the brain. If the person has been taking anti-depressants, the serotonin booster will help them to come off these drugs safely (anti-depressants can be addictive). Start the GAPS Nutritional Protocol and the serotonin booster: once you have reached the maximum level of the serotonin booster, you can start reducing the dose of the medication gradually. The best indicator for how quickly the dose should be reduced is how you feel: mood, emotional stability and sleep.

An amino acid tryptophan is the precursor for serotonin production in the body. It needs cofactors to work well: niacin, biotin, vitamin B6, folic acid and zinc. Tryptophan is generally available on the market in the form of 5HTP (L-5-hydroxytryptophan), and the typical dose per capsule is 100mg of 5HTP with varying doses of the cofactors.

Supplements for children have 50mg of 5-HTP per capsule. Serotonin booster should be taken twice a day: first thing in the morning and at bedtime.

For an adult I recommend starting from 1 capsule per day at bedtime for 3-4 days, then 1 capsule in the morning + 1 capsule at bedtime for 3-5 days, then 1 capsule in the morning + 2 capsules at bedtime for 3-5 days; in this fashion continue increasing the dose until a desired effect is reached (the sleep is better, the mood is better and you feel happier altogether). The morning and bedtime doses can be different, but the bedtime dose should be the larger one, as serotonin is generally produced more at night. The maximum dose for an adult can be 6-8 capsules per day, but it is very individual (the the majority of people do well on lower doses than that). Serotonin booster can be taken for a fairly long time: 8 months to a year. As the person progresses through the GAPS Nutritional Protocol their normal production of serotonin will recover, and they can slowly reduce the dose and stop the supplement. When you feel well you should start reducing the daily dose slowly and see how you feel. You may halve the dose and find that you don't want to go any lower for a while; but in a few weeks' time you may be able to reduce the dose even further or stop the supplement.

Children: I generally do not recommend serotonin booster to very young children (they seem to recover their serotonin production very well just with the diet). From the age of 5-6 years it can be helpful in hyperactive children, children with sleep problems and children with tics and Tourette syndrome. Use the children's dose of 5-HTP, which is 50mg per capsule; use the brand with cofactors in it. The maximum dose for children depends on the age of the child: for 5-7-year-olds 4 capsules per day is enough, for 8-10-year-olds 6 capsules per day is maximum, for 11-14-year-olds 8-10 capsules per day is enough; older children can move into adult doses depending on the size of the child (remember that the adult capsules have 100mg of 5-HTP). Just as with adults, start from a small dose and build the dose gradually to an individual level for the child: a level at which there are improvements (the sleep is better, the mood is better and the tics/Tourette symptoms disappear).

I often combine serotonin booster with a dopamine/noradrenalin booster. The majority of people with low serotonin production have low production of other neurotransmitters as well, so it is a good idea to boost them together. However, every person is unique and the ratio of these supplements has to be worked out on an individual basis. Only the patient or the parents of the patient can work it out by trial and error, so build the dose up slowly and use your intuition. Over time the patients or the parents build up an experience of what works in their particular case. Serotonin is our most essential neurotransmitter, I recommend trying the serotonin booster first before considering other boosters.

DOPAMINE AND NORADRENALIN BOOSTER

An amino acid tyrosine is the precursor for these neurotransmitters. It requires some cofactors to work: vitamin C, niacin, B6, folic acid, B12, magnesium, zinc, copper and manganese. There are many brands on the market which contain these ingredients in different combinations; the dose of the main ingredient tyrosine is usually 500mg per capsule.

Dopamine and noradrenalin give us the enthusiasm and energy to live the day, to be interested in life, to have motivation to do things and experience happiness. People with depression, lack of motivation and enthusiasm, withdrawn and lethargic people benefit from supplementing tyrosine. People with sleep problems (particularly those who find it difficult to fall asleep, to wind down in the evening) also benefit from taking this supplement in combination with the serotonin booster (not on its own!). Dopamine and noradrenalin are the 'up-and-go' neurotransmitters, so tyrosine with its cofactors needs to be taken in the morning only.

For an adult start from 1 capsule every morning for 4-7 days, then 2 capsules every morning for 4-7 days; keep increasing the dose until the desired effect is reached: a maximum dose for an adult is usually 4-5 capsules per day. At this maximum dose it is prudent to balance tyrosine with the serotonin booster at bedtime. Generally, people with low production of dopamine and noradrenalin are also low on serotonin, so in the majority of cases I recommend using both boosters together.

For a child start from ½ a capsule per day for a week, gradually increase to 1-2 capsules every morning. I generally do not recommend this supplement for children younger than 5 years of age. Up to the age of 8 years 1 capsule every morning may be enough, for older children 2 capsules per day is the usual dose. In combination with serotonin booster, this supplement works very well in reducing tics and Tourette-like symptoms. However, if you overdose on this supplement, the child may become irritable and aggressive.

GABA (GAMMA-AMINO-BUTIRIC ACID) BOOSTER

GABA is a calming neurotransmitter, responsible for composed and relaxed disposition. People who are tense, anxious, unable to relax, 'driven, on the go and cannot switch off'

are low in this neurotransmitter. These people are prone to mood swings and are unable to cope with stress.

GABA in itself is an amino acid. However, there are amino acids which aid its production in the body: glutamine, taurine and a derivative of glutamine, called theanine (extracted from green tea). Cofactors to help GABA production are: vitamin B6, magnesium, niacin, pantothenic acid, folic acid and vitamin B12. There are supplements on the market containing these ingredients. GABA booster should be taken in combination with serotonin booster, and in some cases with the dopamine/noradrenaline booster. There are supplements on the market which contain all three; in appropriate cases they can be very convenient for the patient to take.

For adults the usual dose is 2-4 capsules per day, half in the morning and half in the evening. The dose should be built up slowly, starting from 1 capsule per day.

For children ½-1 capsule per day is usually enough, taken in the evening.

If one were to have pyroluria, would they need to do supplements in addition to the GAPS diet?

Kryptopyrroles are produced by pathogenic microbes in the gut. To deal with it long-term work on changing your gut flora with the GAPS Programme. In the initial stages supplementing zinc, B6, folic acid and sometimes other B vitamins can be helpful.

I think I have pancreatitis. Would this diet help heal it and are there any special recommendations?

Acute pancreatitis (inflammation of the pancreas) responds best to fasting. You can fast at home up to 3 days, but if you want to fast longer it is best to do it under professional supervision (pancreatitis often requires longer fasting). There are many fasting clinics around the world where you can fast for up to 40 days. Fasting is very powerful; there are many nuances to a long fast and it is easy to get into trouble if you are not experienced. When the fasting is over, implement the GAPS Introduction Diet step-by-step. Pancreas has a good ability to regenerate, so it can heal itself.

Will the GAPS diet help with fluoride poisoning?

Any poisoning with man-made chemicals overloads our detoxification system and often breaks it down. GAPS Programme is known for restoring your own detoxification system in the body. Once this system starts working, it will remove fluoride and other toxins out naturally.

Throughout my life I have often suffered from 'air hunger' where I breathe in and feel as if my lungs cannot take in enough air. Are you familiar with this problem?

Air hunger or shortness of breath can be caused by many things: lung disease, heart disease, anaemia, neuro-muscular disease and psychiatric conditions. You need to find out what causes your situation.

After months on the GAPS diet we still get dry lips. Why is this?

Dry lips can be due to nutritional deficiencies and toxicity in the mouth and the skin. Give your body longer time to heal. In the meantime at night apply raw honey on the lips; during the day apply olive oil, coconut oil, raw butter or any other edible fat. Never use lipstick or any other man-made chemicals. Toothpaste is often a culprit: try to brush your teeth only with olive oil or coconut oil (do not use any commercial toothpaste at all) for a few weeks and see if that makes a difference.

I occasionally get nauseous in the evenings but have not managed to find a reason for this. Do you know what causes there could be for this? I wonder if it is to do with poor fat digestion or lack of carbs?

It is always more difficult to digest food in the evenings, so try to avoid eating late: have your last meal around 4-5 pm and make it mostly vegetables (less meat and fat). Taking some digestive enzymes may help: HCL&Pepsin before the meal and pancreatic enzymes after the meal.

I have been on the GAPS diet for 5 months (just coming off Intro, but haven't as yet been able to introduce fruit) and am experiencing extreme muscle fatigue to the extent that I feel like my muscles will give way after climbing a flight of stairs and even blow-drying my hair takes extreme effort. Please could you comment?

Many GAPS people have toxins which damage their mitochondria (energy factories in the body), so their energy production drops. For a person with mitochondrial damage it takes longer than 5 months to start getting better. There are some things you can do to help the situation. First: to improve your blood sugar levels make a mixture of raw butter (or coconut oil) with some raw honey to taste, put this mixture into a glass jar and carry that jar with you everywhere; take 1-2 tablespoons every 20 minutes all day. Introducing fruit is not going to remove the problem necessarily because it is fats that are the best source of energy for the human body. If your digestion and assimilation of fats is not good yet, then you need to work on that: introduce GAPS milkshakes (you will find the recipe in the section on gallstones in FAQs).

Are you aware of any underlying imbalance or condition that could contribute to Geographic Tongue? I have been applying probiotics topically and perform oil pulling for 1 year on GAPS; is there any particular recommended treatment for this condition (or its causative condition)?

This condition often reflects the liver function: your liver may be struggling with some toxins. Try to do coffee enemas to unload the liver. Taking liver supporting herbs may help as well, such as dandelion and milk thistle.

I have tried to follow the recommendations to add lemon juice, apple cider vinegar or HCl to stimulate the appetite and the digestive juices. They do help, but also cause little pimples on my brow, chin and upper lip, which multiply daily for as long as I use these supplements. I don't know if this is some kind of die-off or if they are just upsetting some balance in my body.

HCl & Pepsin, cider vinegar, lemon juice and lactic acid in fermented foods kill pathogens in the stomach. Many GAPS people have an overgrowth of pathogenic microbes in the stomach. When dying they release toxins. Our skin is a major detoxification organ. It is likely that some of these toxins are leaving your body this way. To ensure that there are no other reasons for these pimples do not use any man-made chemicals on your face, such as make-up, moisturizers, soap, etc. Wash your face only with water and use olive oil, coconut oil (or any other cold-pressed oil) as a moisturizer. The general rule is: if you cannot eat it you cannot put it on your skin. When there is a chance swim in the sea and expose your face to the sunlight.

Is tamarind pulp allowed on the GAPS diet?

I don't have much experience with tamarind. So, to be cautious try it only when major digestive problems have gone. It is used as a laxative by the native people, so if you are prone to loose stools it may not be a good idea to try tamarind. People, who are generally prone to constipation, may be able to find a benefit from it.

My spouse has 'unexplained neuropathy' – unpredictable shooting pains that feel like jolts of electricity running down his left side that are quite incapacitating at times. All the medical tests show nothing (except low thyroid), and all the specialists say that while they believe he is in pain, there's nothing they can do for him. Do you think GAPS might be able to help, or even cure this problem?

Yes! The first thing to check is if there is a root canal or another trouble-tooth on that side of the body (with a chronic smoldering infection). If the answer is yes, it must be removed immediately by a holistic dentist. Most neuropathies are autoimmune. Autoimmunity is born in the gut, so following the GAPS Programme will help to remove that factor. Eat plenty of liver every day as part of the diet, as this is the best source of B vitamins, deficiency in which can also contribute to this problem.

What do you recommend for hemorrhoids?

Hemorrhoids are the visible sign of high blood pressure in the portal system. Portal system is all the veins that collect blood from your digestive system and bring it into the liver to be filtered. This high pressure in the portal system is due to the fact that the liver is overloaded with toxins and cannot process the blood quickly enough. As an immediate relief coffee enema is the best remedy. For the coffee enema procedure please look in FAQs on under 'enema' and 'constipation'. Long-term you need to follow GAPS to change the gut flora and heal the gut. As the flow of toxins from the gut to the liver drops, your liver will be able to process the portal blood quickly enough, so it does not back up and cause hemorrhoids.

Is there anything in particular to think about when healing ulcerative proctitis? Or is it just to stick with early stages of the Intro Diet for a long while?

Yes, the Introduction Diet is in order. Apart from that soothing enemas will help. Implement enemas only when there is no rectal bleeding. Garlic enemas will help to remove worms and other parasites from your rectum. For a garlic enema crush 2-3 cloves of fresh garlic into 1 liter of water, strain and use in enema. Enemas with a probiotic added will help to heal (particularly with homemade sour cream). Enema made with fresh camomile tea will sooth. If you have an aloe Vera plant at home, blend/crush a leaf into a liter of water, strain and use that as an enema; it will sooth and initiate healing (use only fresh leaf from the plant, not commercial aloe Vera preparations). Whenever you can, add some good quality probiotic into your enemas.

I wanted to ask about dioxin exposure using the GAPS diet. Dioxin is reported to be one of the most toxic chemicals produced, and has very strong ties to many cancers. Exposure to dioxin is primarily through the diet, with vegans having the lowest levels. Fish is the largest source, eggs is the second, meats are very significant sources too (even organically produced). I am concerned about eating so much meat, fish, eggs and dairy.

Why focus on dioxins only? What about hundreds of other man-made chemicals in our food supply, many of which are just as toxic?

There are several issues to toxicity: supply, your body's ability to detoxify and detoxifying substances in the food. The purpose of eating plant matter (vegetables, fruit, nuts, etc) is generally to keep the body clean, because they provide many cleansing substances. Plants generally do not feed us; they just cleanse and provide some energy. Animal foods are generally building/feeding foods, they provide the 'bricks-and-mortar' to build your body and your detoxification system; without meat, eggs, fish and dairy your own detox system may not work well. Raw animal foods provide a fair amount of detoxifying substances as well. It is important to build your body and to keep it clean. By combining both plants and animal foods, we allow our bodies to be optimally healthy. We are all different: some need more building while others need more cleansing. It is up to every individual to find the right balance between the cleansing foods (plants) and the feeding foods (animal products).

Is the GAPS Diet appropriate for someone with histamine intolerance?

Yes! I believe that people with this condition have an overgrowth of particular species of microbes in the gut which produce histamine and block the enzyme (diamine oxidase), which is supposed to process histamine. GAPS Programme will allow you to change your gut flora and remove this condition permanently. In the initial stages avoid all the culprit foods: all alcohol, black tea, canned and smoked foods, leftovers (you should eat everything as fresh as possible), beans and lentils, fermented vegetables, mature cheeses, cocoa, nuts, etc. All fresh foods prepared at home, including freshly fermented yogurt and kefir will be fine for you. It will be best if you follow the GAPS Introduction Diet.

Can you comment about Behcet's disease and non-reactive spondylitis arthropathy? Since they are thought to be autoimmune conditions, will the GAPS Programme bring some type of healing?

Behcet's disease is of unknown origin at the moment, though the symptoms and the pattern of the spread of the disease point towards some unknown infection. There is no clear autoimmune component found, there is just a clinical picture of inflammation in various tissues of the body. Inflammation is the major way for our immune system to deal with infections. The mainstream medicine attacks the inflammation with immune-suppressing drugs to reduce symptoms, which of course does not address the cause of the disease while stopping the body from dealing with it in its own way. Suppressing immune system in a body which is trying to deal with an infection does not seem like a wise thing to do.

I have no experience in treating Behcet's disease. However, I would try the GAPS Protocol and use large amounts of probiotics, both in the form of fermented foods and supplements. Try to apply the probiotic to mouth and genital ulcers several times every day. Diarrhea is a common symptom of this disease, so follow the GAPS Introduction Diet to clear it. The GAPS treatment will re-balance your immune system and make it stronger, so it will be better equipped to deal with the problem. Non-reactive spondylitis and various arthropathies can accompany digestive disorders, infections and various chronic conditions. I have no doubt that these problems stem from the gut and would recommend to try the GAPS Programme.

There is a lot of talk about genetic SNPs (single nucleotide polymorphism) related to methylation pathways, and how this affects the body's ability to detoxify, for example, Amy Yasko protocol. It seems from this information, food can only go so far in healing if we have genetic issues that require a need for certain nutrients not obtainable from the food (due to SNP). For example, if I have both MTHFR SNPs, then my need for certain B vitamins seems to go beyond what I can do with food? Do you recommend this form of genetic testing to help people heal?

By all means try the B vitamins, see if it works for you. I have not seen many patients on Amy Yasko protocol and cannot comment. However, I would recommend that you look

into the new science of epigenetics. The upshot of it is that our genetics DO NOT determine our destiny! We are all equipped with a huge choice of genes to use. Who chooses which genes to use on a daily basis? The environment, of which your diet is one of the most important factors. Depending on what you eat on a daily basis, what chemicals you are exposed to and other environmental factors, YOU CHOOSE which genes in your body you are going to express and which genes are going to stay dormant. So, whatever genetics you were born with are not important; it is the environmental factors that you choose for yourself that predetermine your health. The only exception to this rule is a small group of genetic diseases, such as Down's syndrome.

Can you discuss how a low-fiber diet can affect and/or worsen hemorrhoids? I am 8 weeks into the Intro diet and have developed painful hemorrhoids that seem to be partially blocking BM's from exiting the body. The hemorrhoids appear to be both internal and external. What can I do without having to put this diet on hold?

Please, read about hemorrhoids in the FAQs. Fiber can be very damaging in hemorrhoids. The best short-term remedy is a coffee enema. Long-term follow the GAPS Diet.

Do you have any thoughts about treating Charcot-Marie-Tooth disease with the GAPS Diet?

I have a number of people with peripheral neuropathy who recovered fully using GAPS Nutritional Protocol. Charcot-Marie-Tooth disease is a form of peripheral neuropathy which is considered to be genetic. However, according to the new science of epigenetics we are born with a large choice of genes. It is the environment we create inside our bodies that chooses which genes to activate and which genes to keep dormant. GAPS Nutritional Protocol will change your inner environment dramatically, so your body could switch to using different genes. So for a person with this disease and any other 'genetic' condition I would recommend to give it a try.

What is bio-resonance treatment? Is it effective with young children with multiple food and environmental allergies?

Bio-resonance is a form of vibrational medicine. By using a machine which picks up frequencies from your body the bio-resonance practitioner can diagnose various imbalances. The machine then can alter those frequencies and send them back to your body as treatment for those imbalances. Bio-resonance and other vibrational methods have a good record of clearing allergies. It works, but not in everybody; the only way to know if it will work on you is to try it. Vibrational medicine is new and will take time to perfect itself, and when it does it may become the medicine of the future.

Why do schizophrenia symptoms occur around the age of 25? What precludes it from occurring at an earlier age if the patients inherit a bad flora from their parents?

Schizophrenia can develop at any age, even in young children, and the sad trend is that it is becoming younger and younger. The usual age when it used to be diagnosed was around 17-25, but today many youngsters are diagnosed at the age of 15. It is one of the most severe GAPS conditions and the most difficult to treat.

It takes a very strong and united family to help a person with schizophrenia: the person has to be 'sectioned' at home by the family and treated with a very strict GAPS Nutritional Protocol. It is not essential to start from the GAPS Introduction Diet (many families find it easier to start from the Full GAPS Diet), but the Intro Diet has to be implemented at some stage.

As soon as the person feels better and becomes lucid the medication has to be removed, because the drugs have serious side-effects, one of which is often psychosis. All psychotropic drugs are addictive, they cannot be stopped abruptly, so the medications must be removed slowly and carefully, one drug at a time, a fraction of the daily dose at a time.

As to the question why schizophrenia usually develops in late teens – early 20s, I think the answer is simple. Until the late teens the person usually lives with the parents who generally look after their child's diet and life-style to their best ability. Vast majority of patients with schizophrenia are GAPS children from the start. While they live at home and are properly looked after they cope. But when they become independent, the usual trend is for poor diet, use of recreational drugs, alcohol, smoking, etc, all of which overwhelm their poor constitution and trip the person into severe GAPS, manifesting as schizophrenia. In a small percent of patients, who were not GAPS children from the start, the 'wild young years of self-abuse' undermine their immune system, which brings lots of infections, which in turn bring lots of antibiotics, and the result is the same – GAPS.

In one of your talks I heard you mention that some Chinese people don't ever tolerate dairy. Could this be the case for a baby who is 1/16th Chinese?

Not necessarily. I have seen many Chinese and other people from Asia who eat dairy and are doing fine, while others react to it.

We adopted a son from Russia whom we believe has FAS (foetal alcohol syndrome), though he has not been officially diagnosed. He does have some conditions, such as hyperactivity that your book says can be helped through diet. Do you have any experience with children pre-natally exposed to alcohol? If so, do you believe the GAPS diet could help such a child?

Yes, I had such children in my clinic and they can do very well. Adopted children often come from families with a history of drug or alcohol abuse and, from my experience a lot of the damage can be reversed. If the child doesn't have digestive symptoms you can

implement the Full GAPS Diet from the start and keep him on it for many years. If the child is suffering from diarrhoea, abdominal pain and other digestive problems, then you need to implement the Introduction Diet first before moving into the Full Diet.

I am wondering if the GAPS Diet would be a good idea for someone with PKU (phenylketonuria). If so, are there any recommendations for how to go about that?

Phenylketonuria is a genetic disorder where the person cannot metabolise an amino acid phenylalanine, resulting in physical and mental disability. The mainstream diet is devoid of all sources of phenylalanine, which means virtually no animal foods and some plants are also monitored. Unfortunately, I have no experience with this condition. If any of you tried to use the GAPS Diet, please let me know.

Will GAPS help with Cyclical Vomiting Syndrome?

Absolutely! I have many cases who recovered from this terrible condition. Follow the GAPS Introduction Diet.

Can you comment on the use of the GAPS diet for P.O.T.S. (Postural Orthostatic Tachycardia Syndrome)?

Many GAPS people have POTS: you get lightheaded (almost fainting) when changing position from sitting or lying down to standing up. It is due to imbalance in the autonomic nervous system caused by toxins coming from the gut (in many people their abnormal gut flora produces too much histamine, for example). Work on your gut flora with the GAPS Protocol, and don't forget to eat lots of animal fats, and this problem will go away.

A big part of India (at least 40% from India Today's recent survey) is completely vegetarian. Given that 400 million or more people are traditionally vegetarian (and all their ancestors were), why do you call vegetarian diets unhealthy? Are you referring specifically to cold climates similar to Northern or Eastern Europe, when you say meat is essential? I know hundreds of my fellow countrymen who have grown up without any meat or eggs and are completely healthy.

Please, read *FEEDING VERSUS CLEANSING* on my blog Doctor-Natasha.com , where I have covered this subject in detail.

