

Mod 5 Systemic Pathologies

Arthritis



Arthritis is the leading cause of disability, reducing the quality of life, and contributor to high health care costs in the U.S.

Of the 46 million Americans who suffer from arthritis, nearly half say that arthritis limits their normal activities. The good news is that recent studies suggest that massage can help reduce pain and increase mobility in those who suffer from arthritis .

Milivojevic, JoAnn.

["Relief Within Reach."](#)

Massage Therapy Journal.

American Massage Therapy Association.

3/30/09.

Massage and Arthritis.....So, what does it do?

There are really two issues with massage therapy as it relates to arthritis.

The first is what it accomplishes.

That is, that massage helps the arthritis sufferer by loosening up the joints. Namely, in the muscles and ligaments that break up the adhesions that slow or hinder motion.

And secondly, when gentle joint stretching is done it can actually stimulate the production of synovial fluid which acts as a cushion. This reduces inflammation and pain.

Massage Study for OA using Swedish Tech.

The massage study focused on Swedish massage, the most widely available type in the U.S. The study included 68 knee osteoarthritis patients who were at least 35 years old (average age: 66-70).

Most were white women. All lived in northern New Jersey and had X-rays confirming a knee osteoarthritis diagnosis

First, patients rated their knee pain, stiffness, and function. Then, they were split into two similar groups.

For a month, patients in one group got two weekly Swedish massages, followed by a month of weekly Swedish massages. Each massage lasted an hour.

For comparison, patients in the other group waited two months before getting the same massage treatment.

After eight weeks of massage, patients reported less knee pain and stiffness and better knee function.

"Massage therapy seems to be efficacious in the treatment of OA [osteoarthritis] of the knee," write the researchers.

SOURCES: Perlman, A. *Archives of Internal Medicine*, Dec. 11/25, 2006; vol 166: pp 2533-2538. National Institute of Arthritis and Musculoskeletal and Skin Diseases: "Handout on Health: Osteoarthritis." News release, Yale University. WebMD Feature: "Massage 101: The World of Touch."

Tiffany Field, PhD, director of the Touch Research Institute at the University of Miami School of Medicine, who's conducted a number of studies on the benefits of massage, including on people with arthritis. In Field's research and other recent studies on the effects of massage for arthritis symptoms, regular use of the simple therapy led to improvements in pain, stiffness, range of motion, hand grip strength and overall function of the joints.

Field in a 2006 study conducted at the University of Medicine and Dentistry of New Jersey examined 68 adults with knee osteoarthritis receiving two Swedish massages per week for eight weeks, compared to a group who received no massage. The massage group reported significant improvements in knee pain, stiffness, function, range of motion and walking, the researchers found.

In fact, says Field, what matters most is the level of pressure used in the massage – preferably moderate to light. Her 2010 study, published in the *International Journal of Neuroscience*, showed that stimulating pressure receptors, or nerves under the skin that convey pain-reducing signals to the brain, with moderate pressure leads to reduced symptoms.

“The critical thing is using moderate pressure,” says Field. “Light pressure, just touching the surface of the skin or brushing it superficially, is not getting at those pressure receptors. Light pressure can be stimulating, not relaxing.”



According to research published in the May 2013 issue of the journal *Complementary Therapy in Clinical Practice*, study participants reported relief from pain and stiffness after four once-a-week moderate-pressure massages on arms affected by rheumatoid arthritis, supplemented with daily self-massage at home. They also reported having a stronger grip and a greater range of motion than those who were given only a light-touch massage.

Frequency of the Massage

Just like all therapies, this requires some attention to repeating to make it most effective. Sure, the first time you go in you will get some relief. But, to get the most out of it you really need to do massage therapy on a regular basis and it is best to use a therapist with experience with OA sufferers. (The risk is that they do massage too deeply if they are not used to working with OA)

The best schedule seems to be seeing a therapist once a week for about a month and thereafter, once a month should keep you on track.

Here is what I recommend for “General Arthritis Clients”

1x/week for 4 weeks (acute care phase) (if severely inflamed the do ½ hr sessions)

2x/mo (sub acute, structure supporting phase)

1x/mo (maintenance phase)



Drink lots of water. Carol Davis, PT, professor emerita of physical therapy at the University of Miami Miller School of Medicine

Davis explained that massage with any degree of pressure will affect the water flow in your body and will be more effective if you are well-hydrated. “We recommend drinking half your weight in ounces of water,” she said. So if you weigh 150 pounds, aim for 75 ounces of water daily.

Heat and Arthritis

1 Rule- ALWAYS GO FOR CLIENT COMFORT



How Does Heat and Cold Help Arthritis Pain?

Heat or cold therapy works by stimulating your body's own healing force. For instance, heat dilates the blood vessels, stimulates blood circulation, and reduces muscle spasms. In addition, heat alters the sensation of pain.

You can use either dry heat -- such as heating pads or heat lamps -- or moist heat -- such as warm baths or heated wash cloths.

Conversely, cold compresses reduce swelling by constricting blood vessels.

While cold packs may be uncomfortable at first, they can numb deep pain.

Caution make sure to put a towel between skin and cold pack

OA Osteoarthritis

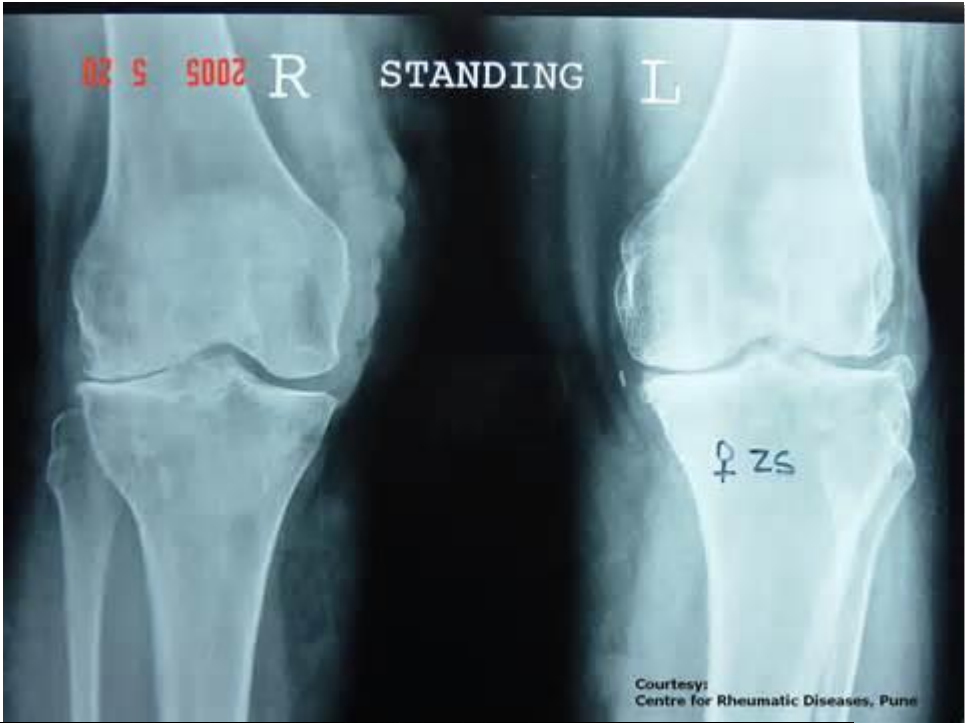
There are over 100 different types of arthritis. The most common are Osteoarthritis, Rheumatoid Arthritis and Gout Arthritis.

Osteoarthritis:

- The most common form of arthritis, affecting hips, knees and hands
- Affects more than 20 million Americans
- Also known as Degenerative Joint Disease (DJD)
- Occurs when the cartilage that covers the end of the bones slowly wears away and is more likely to occur with age



DJD



Signs and Symptoms

Key symptoms of arthritis include joint pain, swelling and stiffness, but each particular type of arthritis may yield different symptoms.

If you have any type of arthritis, you may experience:

- Stiffness, especially in the morning
- Joint pain and swelling
- Redness or tenderness around a joint
- Reduced ability to move

Symptoms of Osteoarthritis:

- Chills and fever during normal activities can indicate the gradual onset of Osteoarthritis
- Joint pain that worsens after exercise or putting weight on it
- Increase in pain in humid weather
- Fever during normal activities

Rheumatoid Arthritis:

- Long-lasting disease most commonly affecting hands, knees and wrists
- Typically affects people between ages 25-55
- Considered to be an autoimmune disease
- Begins when the immune system mistakes healthy tissue for a foreign substance and subsequently attacks itself, causing the joint lining to swell



Symptoms of Rheumatoid Arthritis:

- The disease begins gradually with fatigue, morning stiffness, weakness, muscle aches, loss of appetite
- Eventually joint pain appears in the same joints on both sides of the body
- When joint is not used for a period of time, it can become tender, stiff, warm and swollen
- Additional symptoms may include anemia, paleness, swollen glands, limited range of motion and numbness or tingling



RA criteria below:

- Morning stiffness
- 3+joints
- Arthritis of hand
- Symmetric arthritis
- Rheumatoid nodules
- RF in blood panel
- X-ray changes
 - Need 4 of the 7
 - 1-4 must occur for at least 6 wks

RA Stage Progression

- Stage I Early – no destruction
- Stage II Moderate – no joint deformity, osteoporosis w/ or w/out some bone and cartilage destruction
- Stage III Severe – cartilage and bone destruction with osteoporosis, joint deformity
- Stage IV Terminal – fibrous or bony ankylosis

Symptoms of Juvenile Rheumatoid Arthritis (Rheumatoid Arthritis in children):

- Loss of appetite
- Fever
- Weight loss
- Anemia
- Blotchy rashes on arms/legs
- Often seen limping in the am or after a nap
- Swelling in the knee(s)
- Rigid and slow





Juvenile Arthritis Symptoms

JRA – Classification Criteria

- JRA – Juvenile Rheumatoid Arthritis American College of Rheumatology 1970 three types of onset: oligo (pauciarticular), polyarticular, & systemic in the first 6 months of onset
- JCA Juvenile Chronic Arthritis (European League Against Rheumatism) 1977
- **JIA Juvenile Idiopathic Arthritis** proposed by the Pediatric Task force of the International League of Associations for Rheumatology ILAR (1993) – developed to achieve homogeneity within disease and categories.

Oligoarticular (affecting a few joints) JIA

- Arthritis in 1 to 4 joints during the first 6 months of disease
- Girls 1 to 4 years
- Knees, ankles, elbows
- Painless swelling of joints is common
- Uveitis: insidious, subacute, an internal inflammation of the eye. The condition involves the middle layers of the eye, also called the uveal tract or uvea. 15-20% have uveitis



JIA: Oligo – persistent

- No more than 4 joints affected throughout the disease course

JIA: Oligo - extended

- Affects a total of more than 4 joints after the first 6 months of disease.
At least 1/3 of children with Oligoarticular arthritis fall into this category
Outcome is more typical of RF+ polyarticular disease



Uveitis in JIA

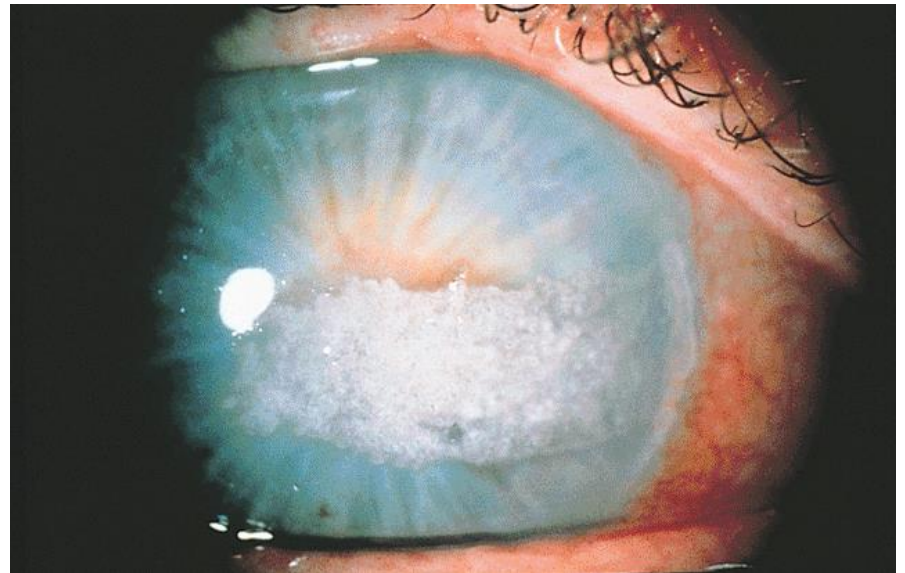
- Intraocular inflammation affects iris and ciliary body
- Usually insidious and may be asymptomatic
- Activity of eye does not parallel joint disease
- For dx, a Slit lamp exam detects anterior chamber inflammation
- Girls, that have onset before age 7 at higher risk



Prognosis of Uveitis in JIA

- Very good in 25% of cases
- 25% may require surgery for cataracts and/or glaucoma
- 50% require prolonged treatment for moderate to severe chronic inflammation; however, the prognosis is generally good

Complications: cataracts
20%, glaucoma 20%, band
keratopathy 16% (end stage
scarring)



Uveitis in JIA

- Usually occurs after onset of j. arthritis. Highest risk is within 2 years of onset of arthritis. Majority develop eye disease within 5-7 years after onset
- 65% have bilateral involvement, unilateral may progress to bilateral
- Treatment includes topical steroids, SQ Methotrexate, IV Remicade; SQ Humira and
- Enbrel.

Gout Arthritis:

Monosodium urate deposition – hyperuricemia **don't confuse w bunion!!!!!!**

- Painful condition causing joint pain most commonly in knees, wrists and the **big toe**
- Occurs when body overproduces or cannot get rid of uric acid
- Most common to occur in postmenopausal women, males and people with high blood pressure



Symptoms of Gout Arthritis

- Throbbing joint pains, frequently throughout the night
- Signs of tenderness, warmth and redness around affected joints
- Warmth, pain, swelling, and extreme tenderness in a joint, usually a big toe joint. This symptom is called podagra.
- The pain often starts during the night. It may get worse quickly, last for hours, and be so intense that even light pressure from a sheet is intolerable.
- Very red or purplish skin around the affected joint. The joint may appear to be infected.
- Limited movement in the affected joint.
- Peeling and itching of the skin around the affected joint as the gout gets better.



Gout Arthritis:

Purines (specific chemical compounds found in some foods) are broken down into uric acid. A diet rich in purines from certain sources can raise uric acid levels in the body, which sometimes leads to gout. Meat and seafood may increase your risk of gout. Dairy products may lower your risk.

Foods to limit (very high in purines):

Organ meats, such as liver, kidneys, sweetbreads, and brains

Meats, including bacon, beef, pork, and lamb

Game meats

Any other meats in large amounts

Anchovies, sardines, herring, mackerel, and scallops

Gravy

Beer

Foods to eat occasionally (moderately high in purines, but may not raise your risk of gout):

Fish and seafood (other than high purine seafood)

Oatmeal, wheat bran, and wheat germ

Artificial Sweeteners and Arthritis

Sugar substitutes such as Sweet 'N Low (saccharin), Splenda (sucralose) and NutraSweet (aspartame) have become staples of the American diet to reduce calorie intake and decrease the amount of sugar in food. The Food and Drug Administration has deemed aspartame safe for the U.S. population, and not a contributor to arthritis or other diseases.

Dr. Julian Whitaker, author of "The Lowdown On Aspartame/NutraSweet," published in the March 2000 issue of Health and Healing Journal of Complementary Medicine, cites in his article that rheumatoid arthritis was brought on by consumption of products containing aspartame. His review of numerous cases showed arthritis symptoms disappeared after eliminating aspartame from a patient's diet.

Dr. H.J. Roberts, author of "Aspartame Disease: An Ignored Epidemic," talked about the direct role products containing aspartame have on health in his article "Professional Opinion Concerning the Role of Products Containing Aspartame in Arthritis and Fibromyalgia." His 15 years of study of more than 1,200 patients found a dramatic decrease in joint pain after discontinuing use of products containing aspartame.

Dr. Tenesha Weine says in her article "Sickly Sweet: The Problem With Aspartame" that aspartame makes your body acidic, disrupting the normal pH balance, leading to joint pain and arthritis. In treating patients with arthritis, she finds that eliminating aspartame helps alleviate arthritis by bringing pH to a more alkaline level.

Once Arthritis starts to set in the joints mobilization is the key to help keep things from getting

- Immobilization due to pain is the kiss of death to joints. The result is contractures and deformity
 - You need to maintain passively pt's ROM esp. in non-weight bearing joints like shoulder and hand.
- Once immobilization begins then disc and or cartilage degeneration begins.
- Once this happens osteophytes begin to form (bone spurs)
- If left untreated then they form into syndesmophytes (bone fusion)



Osteophyte



Syndesmophyte



Psoriasis (Pso)

Psoriasis affects 2% of population

Almost a third of patients with Psoriasis will develop some form of arthritis

Psoriatic Arthritis

A chronic and inflammatory arthritis in association with skin psoriasis

Usually rheumatoid factor (RF) negative and ACPA negative

Distinct from RA

Psoriatic arthritis is an inflammatory disease, the manifestations of which may include:

- Inflammatory arthritis which over time typically progresses to involve greater numbers of joints and can result in joint damage in over 40% of patients
- Psoriasis
- Diffuse swelling of the fingers and toes known as dactylitis
- Enthesitis, which is the inflammation of the point of insertion of tendons, ligaments or joint capsules into bone. Shown here is swelling in the ankle region resulting from the inflammation of the Achilles tendon at the point of insertion into the heel. This is a common site of enthesopathy.

Psoriatic Arthritis



Psoriatic Arthritis

Although the exact cause is not known, psoriasis commonly runs in families. Aside from the possibility of a genetic susceptibility, most doctors believe that psoriasis involves the immune system.

This is because an increased number of white blood cells are present between the psoriasis skin layers and because this skin condition responds to immunosuppressant drugs. In addition, the following factors may contribute to psoriasis development, worsening or flare-ups:

- Cold, dry weather

- Skin injury

- Stress and anxiety

- Infection

- Certain medications

Although there are rarely any dangerous complications of this skin disorder, approximately 10-25 percent of people with psoriasis are at risk for a painful and possibly extreme form of arthritis, called psoriatic arthritis. General symptoms of psoriatic arthritis include:

- Pain in affected joints
- Swollen joints
- Joints that are warm to the touch

Asymmetric – This is the mildest form of psoriatic arthritis, and it usually affects less than five joints on one side of the body; typical culprits are the hip, knee, ankle or wrist.

Symmetric – Usually affecting five or more joints on both sides of the body, symmetric psoriatic arthritis is more common in women and tends to be severe.

Fingers and Toes – Distal interphalangeal (DIP) joint predominant psoriatic arthritis is rare and occurs mostly in men. This type of arthritis affects the small, distal joints in the fingers and toes and often causes thickening, pitting and discoloration of the nails.

Spine – Called spondylitis, this form of psoriatic arthritis causes inflammation in the spine as well as stiffness and inflammation in the neck, lower back and sacroiliac joints.

Destructive – A small percentage of people with psoriatic arthritis have a severe, painful and disabling form called **arthritis mutilans**. Over time, arthritis mutilans destroys the small bones of the hands, especially the fingers, leading to permanent deformity and disability.

For massage therapists, psoriatic arthritis is treated the same as rheumatoid arthritis:

Avoid areas that are hot and inflamed.

Strive for joint mobility and pain reduction when there is no active inflammation.

When a client is having a psoriasis flare-up, the affected cells are hyperactive. Thus, increasing energy or circulation in that area could aggravate the condition. Therapists must remember that psoriasis can also be triggered by skin trauma.

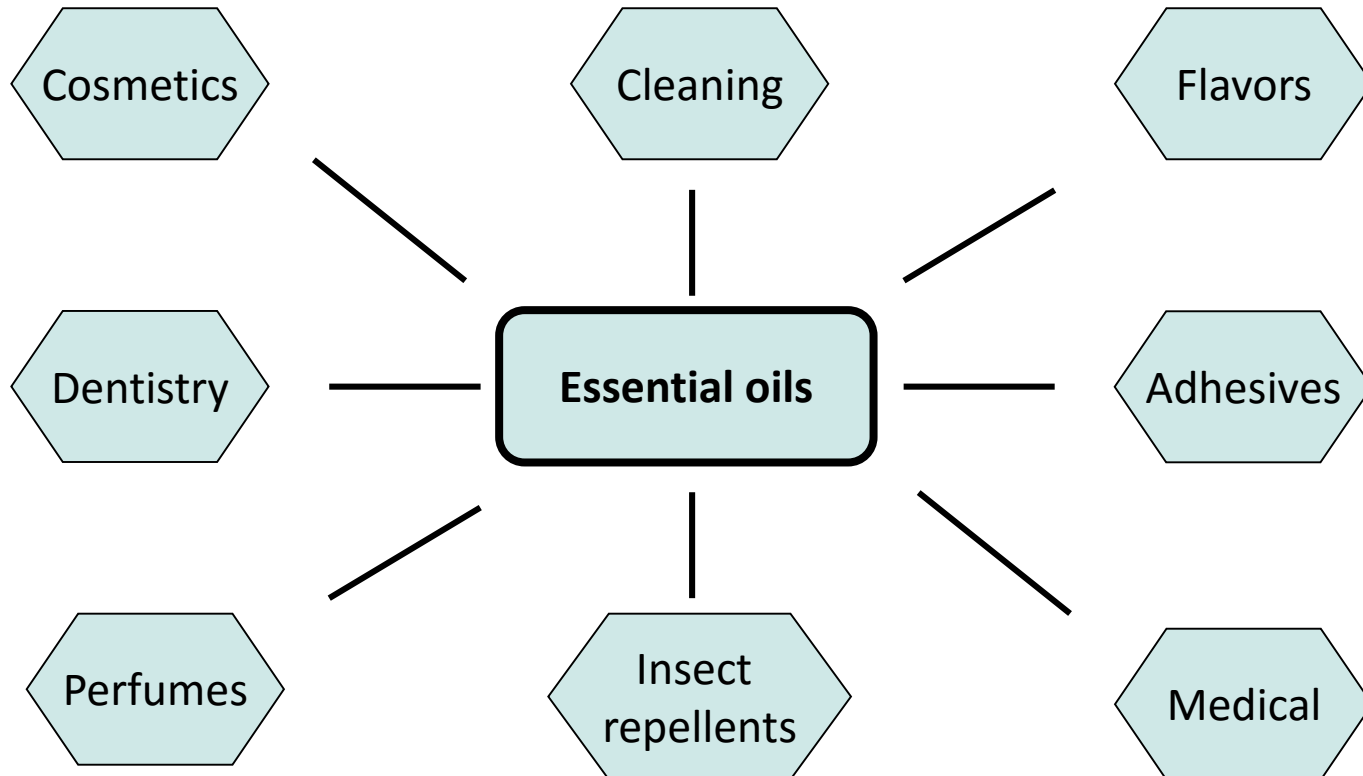
Accordingly, bodyworkers need to make sure their client immediately communicates if he or she feels any discomfort. After considering these two cautions, massage therapy can help alleviate the psoriatic arthritis trigger of stress. And just like for osteoarthritis, massage can reduce pain and stiffness in areas that are not currently inflamed.



Essential oils



Modern uses of EOs



- “The biggest and fastest growing part of American’s drug problem is prescription drug abuse.”

— National Institute on Drug Abuse



- Addictive,
- Toxic to our organs over time,
- Many side effects
- Don't improve conditions that cause pain.



Aromatherapy (EOs)

- ◎ Promotes health and prevents imbalances on the physical, emotional and spiritual level
 - Highly concentrated
 - More potent than herbs – One drop represents the potency of one ounce of plant material
 - Long history for using essential oils – Over 500 references in the bible

Essential Oils for Arthritis

Anti-inflammatory oils –

- Cypress – Increases circulation and anti inflammatory.
- Juniper Berry - Helps reduce pain and inflammation.
- Grapefruit – Great for flushing toxins from the body that contribute to arthritis.
- Frankincense– Frankincense inhibits the production of key inflammatory molecules which helps prevent the breakdown of the cartilage tissue which causes the pain in joints.
- Peppermint - cooling, anti inflammatory, increases oxygen and circulation.
- Wintergreen – clinical grade is equivalent to 2 aspirin caution with pts on blood thinner
- Black Pepper – increases circulation and has thermogenic effect

Arthritic joint Soaking Bath

Juniper berry - 4 drops
Lavender - 2 drops
Cypress - 2 drops
Rosemary - 2 drops
Bath Salts 1-2 cups



To make a blend of Bath salts mix Baking Soda with Epsom Salt in equal portions. Then add to your tub. If you have some *Magnesium Chloride flakes and Sea Salt*, add a bit of that too! Add the essential oils once blended to a bath while filling or just after filling tub and soak for 20-30 minutes.

EO Arthritis Blends

Blend 1

Carrier oil (FC Coconut) 2-3 oz
10 drops Roman Chamomile
2-3 Drops Black Pepper

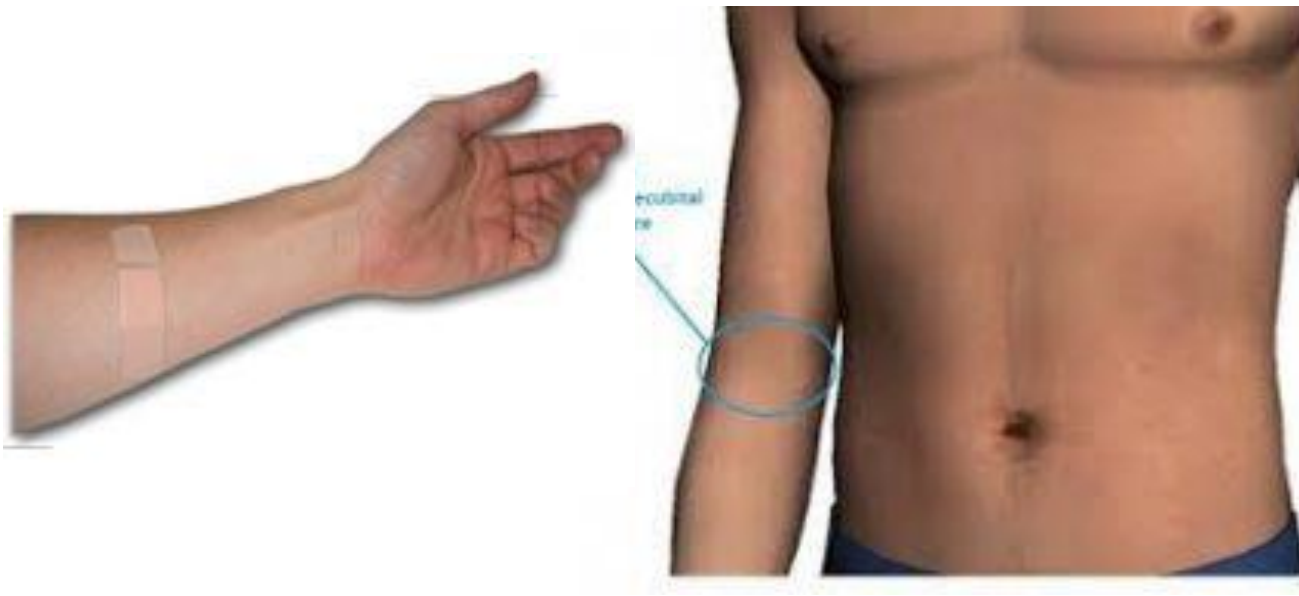


Blend 2

Carrier oil (FC Coconut) 2-3 oz
5 drops Roman Chamomile
5 Drops Helichrysum

NOTE: *dosage has been diluted for clinical grade oils.*

Skin reactivity is becoming more of a problem as synthetic aroma chemicals become more common adulterants in the essential oil industry. A general rule is to never apply more than one to two drops of undiluted oil to the skin. Patch testing is always advisable.



Oils that may not be safe for you to use while pregnant

Nutmeg, which may have hallucinogenic effects and react with pain relieving drugs in labor.

Rosemary, which is thought to increase blood pressure, and may cause contractions.

Basil, which is thought to contribute to abnormal cell development.

Jasmine and clary sage, which may trigger contractions.

Sage and rose, which may cause bleeding in your uterus (womb).

Juniper berry, which may affect your kidneys.

Others you should avoid

Cassia

Cinnamon bark

Lemongrass

Thyme

Vetiver

Wintergreen

White Fir

NOTE: Use Peppermint essential oil sparingly near the end of your pregnancy and while breastfeeding. Mint is known to decrease milk production.

STOP

End of Arthritis

