

**HIGH
CHOLESTEROL**

Effective Strategies for Avoiding Body Betrayal

By Verne Varona

Answer:

Over 100 million Americans.

Question:

How many Americans have high cholesterol (above 200 mg/dl), which can block arterial blood flow and instigate heart attacks and strokes?



FRESIJDEA – FOTOLIA.COM

Do you fit this picture? Can you change your cholesterol levels, including “good” and “bad” cholesterol? Ongoing studies have proved that people with low cholesterol have greater longevity.

Let’s take a quick look at cholesterol and then examine some practical solutions that work toward lowering it to safe levels, without deprivation and the cravings that typically accompany health regimes.

Cholesterol: Waxy, Fat-Like and Everywhere!

That's more or less, the cholesterol story. It's a waxy, fat-like substance found in practically every cell of our body. But, it's not all bad. We need cholesterol to manufacture cell membranes, hormones, vitamin D, and bile acids that help neutralize and break down dietary fat. Cholesterol also helps in the formation of our memories and is critical for neurological function. And, some studies have linked low cholesterol to memory loss. Now, did you remember all that? If not, you might need a cholesterol check...

Some cholesterol comes from diet and some is manufactured in our liver. Since cholesterol cannot dissolve in blood, lipo-proteins (lip-o-PRO-teens) act as little rickshaw drivers, taking it wherever it needs to go. These tiny lipoprotein packages are composed of fat (lipid) on the inside and proteins on the outside. And, there are two kinds of lipoproteins that transport cholesterol throughout our body:

- 1) Low-Density Lipoproteins (**LDL**)
- 2) High-Density Lipoproteins (**HDL**)

Having a balanced ratio of both LDL and HDL is foundational for good cardiac and arterial health. Fortunately, nature has given us the capacity to make all the cholesterol we need. But, cholesterol also is found in many popular foods consumed—and this is where problem begins...

Positive Functions of Cholesterol

There is a front and back to cholesterol—It's all not just negative. Here are some of cholesterol's positive aspects:

- Helps to create vitamin D from sunlight, which helps to keep bones strong, while nourishing immunity.
- Helps manufacture vital sex hormones (ex: estrogen and testosterone), that support reproduction
- Is essential for creating cell membranes and nerve coatings with a protective fatty layer
- Comprises 60-80% of our brain material (one reason cited for cholesterol lowering drugs that have been linked to dementia).
- Is essential for good digestion and the ability to absorb fat (as well as fat soluble vitamins, such as vitamin A, D, E and K). Cholesterol also helps produce bile salts which help to emulsify fats for better digestion.
- Has an anti-inflammatory response in our body, which repairs cellular damage due to stress, poor diet, toxins and other negative influences.

LDL

LDL is a form of cholesterol that stands for *Low Density Lipoprotein* (not, *Little Dog Laughed*). It also has a juvenile delinquent reputation, generally nicknamed: “the bad cholesterol.” A rising LDL level leads to the gradual arterial buildup of cholesterol in our artery linings— the blood vessel pathways carrying blood from our heart to all body parts.

Research has proven that a key strategy for avoiding a heart attack is to keep the LDL cholesterol low. On blood panels, levels of 100 and below is decent, but dropping to 80 and even lower is thought to be ideal and most protective. *

A Journal of New England Medicine (JAMA) study of 4,162 patients concluded that LDL cholesterol levels of **62** were more desirable than levels of **95** at preventing death, heart attacks and other cardio-related problems in people with heart disease.

The mechanism of how an elevated level of LDL cholesterol creates plaque growth and narrows your arterial pathways (leading to atherosclerosis) is fascinating (if not horrifying). Here’s a simple rendering of how it works:

A portion of LDL cholesterol adheres to the walls of your artery lining. This process begins as early as childhood or adolescence. The white blood cells, as is part of their immune function to protect the vessels, immediately engulf and try to break apart the LDL. Part of this process entails the white blood cells converting the LDL to a toxic (oxidized) form.

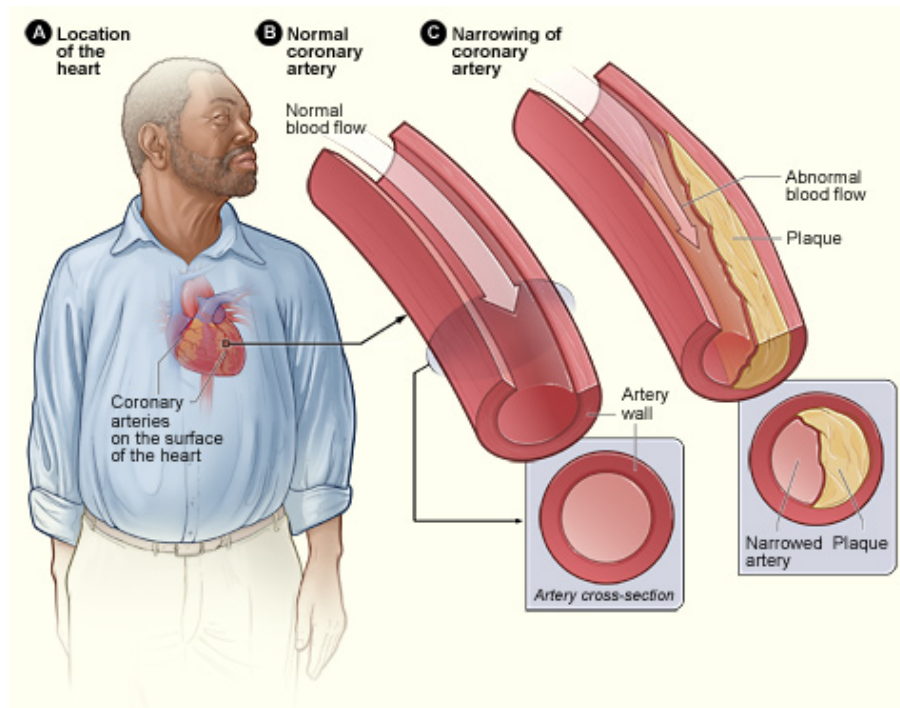
Gradually, more white blood cells, as well as other cells, migrate to the area. This activity build-up creates a steady low-grade inflammation along the artery wall.

As LDL cholesterol continues to collect in the area this bump in the artery wall is now called “plaque.” Plaque contains cholesterol, body cells, and miscellaneous debris. If this process continues, the developing plaque slowly blocks the artery, thereby reducing blood flow, forcing greater blood pressure to try and circulate and potentially blocking the artery.

Another danger, far greater than developing plaque is the sudden rupture of the plaque surface, forming a blood clot on the ruptured area and leading to a pulmonary or cardiac embolism.

* **Note:** In the United States, cholesterol levels are measured in milligrams (mg) of cholesterol per deciliter (dL) of blood. In Canada and many European countries, cholesterol levels are measured in millimoles per liter (mmol/L). For Canada and Europe, desirable cholesterol is best below 5.2 mmol/L; LDL, below 2.6 mmol/L (ideally: Below,1.8 mmo/L); HDH, below 1 mmol/L.

Arterial Illustration



HDL

HDL is a form of cholesterol that stands for *High Density Lipoprotein* (not: Huey, Dewey & Louie). Its reputation is opposite to LDL and thus earns the nickname: “the good cholesterol.” This is because HDL carries cholesterol *from* other parts of your body back to your liver. Among its many functions, our liver removes cholesterol from the body—a natural detoxification effort.

Each fragment of HDL cholesterol is a microscopic mass that consists of a lipoprotein rim surrounding a cholesterol center. Compared to other types of cholesterol particles, the HDL cholesterol particle is fairly dense, therefore it's called *high-density*.

The known benefits of HDL cholesterol are the following:

- HDL cholesterol scavenges and removes LDL
- HDL reduces, reuses, and recycles LDL cholesterol by transporting it to the liver where it can eventually be eliminated
- HDL cholesterol acts as a maintenance crew for the inner walls (endothelium) of our blood vessels. Damage to these walls of the artery lining is the first step in the atherosclerosis development, laying the groundwork for potential heart attacks and strokes. HDL “scrubs” the wall to keep it clean, resilient and healthy.

In terms of blood values, HDL levels that are greater than **60mg** are high is a good thing. HDL levels lower than **40mg** are considered low—and that's not so good.

In one scientific study, more than 3,500 civil servants were monitored to investigate how levels of HDL cholesterol were associated with memory. It was found that *HDL cholesterol influences the formation of the beta-amyloid "plaques,"* which are a distinctive feature in the brains of Alzheimer's patients.

Triglycerides

Triglycerides are a type of fat found in the blood. In the process of digestion, our body converts excess calories into triglycerides, which are then stored in our fat cells. During low energy periods, as between meals, hormones release triglycerides for increasing energy during low blood sugar periods. Common ways to increase triglycerides is to consume more calories than you can burn, specifically from simple carbohydrates and fat. High triglyceride levels are also known as, *hypertriglyceridemia*.

Triglycerides and cholesterol are often confused, since they are both different types of fats, since they cannot be dissolved in blood, and because they both circulate throughout the body with the help of proteins that transport the fats. The main difference is that triglycerides store unused calories, providing the body with energy, while cholesterol builds cells and specific hormones. "Normal" blood values for healthy triglyceride range are the following:

- Normal — Less than **150 mg/dL** (or outside the US: less than 1.7 mmol/L)
- Borderline high — **150 to 199 mg/dL** (or: 1.8 to 2.2 mmol/L)
- High — **200 to 499 mg/dL** (or: 2.3 to 5.6 mmol/L)
- Very high — **500 mg/dL** or above (5.7 mmol/L or above)

Testing for Triglyceride levels is a standard part of Lipid Panel Testing (the range of cholesterol blood values) that requires a 9 to 12-hour complete food fast before blood can be drawn in order to get an accurate triglyceride measurement.

Lab values, Courtesy: www.nhlbi.nih.gov



High Cholesterol vs. Low Cholesterol

High blood cholesterol is a condition in which you have too much cholesterol in your blood. By itself, the condition usually has no signs or symptoms. Thus, many people have little clue that their cholesterol levels are too high.

It is well known that people who have high blood cholesterol generally have a greater chance of developing coronary heart disease (also known as, Coronary Artery Disease). Here are two points to remember:

- The **higher** the LDL level of cholesterol in your blood, the **GREATER** potential you have for getting heart disease.
- The **higher** the level of HDL cholesterol in your blood, the **LOWER** your chance is of getting heart disease.

Coronary heart disease is a condition where plaque (as in: *plak*) builds up inside of your coronary (heart) arteries. That plaque, composed of cholesterol, fat, calcium, and other blood substances, attaches itself to your artery wall. This developing condition is known as atherosclerosis (ATH-er-o-skler-O-sis). It's like the "gunk" that collects on your plumbing pipe walls, eventually slowing down the flow of water as the area of flow narrows.

High blood cholesterol means you have *excessive* blood cholesterol. By itself, the condition usually has no signs or symptoms. As a result, many people have no idea that their cholesterol levels are too high. As extremes can often create identical problems, it should be no surprise that a very low cholesterol can also signal potential health problems. A low LDL can put you at risk for:

- Cancer
- Depression
- Anxiety
- Preterm Birth and Low Birth Weight (*if your cholesterol is low while pregnant*)

Cholesterol Lowering Medication

I have met a number of clients who were deceptively uninformed about cholesterol. They had been lulled into a false comfort because of their physicians putting them on medication to "treat the problem." These clients would often say, "My cholesterol is normal—I'm on medication for that..."

Statin drug therapy, which has been used to lower the risk of heart attack or stroke is commonly referred to as, "primary prevention." Now, if you really think about it, this is a gross stretch of claim. Research has showed that when statins are used in low-risk patients who did *not* have heart disease (for prevention) there was zero mortality benefit. Yes, you read correctly: **ZERO**. It was determined that *your chances of dying were the same, on or off, the drug* regardless of how much cholesterol lowering the statin achieved.

There is also a general agreement that statins can *increase* the risk of developing diabetes, particularly in women, and that risk is about the same as preventing a stroke or heart attack—approximately 1%. Statin side effects run the gamut, from: muscle pain, cognitive issues, decreased energy, sexual problems to kidney and liver injury, among other symptoms.



Disease Reversal Documentary – Oahu, Hawaii – Summer 2006

In a 2006 I produced and directed a medically-monitored documentary with the valuable support of Hawaii physician and author, Terry Shintani, MD. We had a great crew lead by cinematographer, Marc Wishingrad with assisting cinematographer, David Bruce. The idea was to show before and after visual and blood work changes with dietary change and exercise regularity.

In the filmed 21-Day alternate dietary and lifestyle experiment with 25 volunteer participants selected from over 150 applicants, we saw dramatic results in general health, particularly among diabetics and hi-cholesterol participants. Participants were examined by the medical team daily, followed a twice-daily walking routine and consumed a whole grain, bean and vegetable diet with no more than 7-ounces of animal protein (optional) weekly. The program omitted dairy foods and refined sugar.

Our results were dramatically positive. *Participants on insulin with Type 2 diabetes, were able within a period of 3 to 7 days, to eliminate their insulin usage, with some taking up to 100 units daily.* Reductions in cholesterol were equally impressive: *reductions ranged from 60 to 120 points—all in just four weeks.* This was observed with baseline blood work and comparisons at the close of 4-weeks when the program ended. Weight loss varied between 12 and 30 lbs. within the 4-week period.



Terry Shintani, MD, lectures to some group participants about arterial plaque formation.

© Copyright 2016, Verne Varona

Final blood reports also showed **normalized** A1C levels for those who began the program with high ranges. The A1C blood test measures what percentage of your

hemoglobin — a protein in red blood cells that carries oxygen — is coated with sugar (glycated). It generally reflects the blood sugar range over a 2 to 3-month period.



Initial participant group interviews. *Left to right:* Verne Varona (*producer/director*), Marc Wishengrad (*DP/Editor*) and David Bruce (*rear —2nd Camera/Editor*)

How They Did It!

The following suggestions and practices were responsible for the dramatic cholesterol changes and overall wellness that our film participants experienced in 4-weeks.

▪ Exercise

In addition to lowering LDL "bad" cholesterol, regular exercise can elevate your HDL (the "good" cholesterol) by up to 10%. Even moderate exercise, such as brisk walking, can offer benefit. Some physicians recommend their patients to purchase a pedometer (which tracks your steps) and aim for 5-miles, or 10,000 steps daily. Our participants walked a minimum of 5,000 steps daily.

▪ Avoiding Saturated Fat

Doctors used to think that the key to lowering high cholesterol was to cut back on eggs and other cholesterol-rich foods. But now it's clear that dietary cholesterol isn't the main culprit. Recent data suggest that it's really saturated fat that causes increases in cholesterol. However, if you cooked your eggs in a slab of butter, don't overlook the fat content in the butter. Still, to be on the safe side, we recommended to our film participants that they eliminate ALL dairy food, including eggs, and minimize vegetable oil to 1 tsp. daily, if at all. *For people with diagnosed cardiac conditions, the TOTAL removal of all oil, nuts and fat, aside from what naturally exists in food is imperative.*

For some, for the first couple of days this was difficult, but it soon became easier and no one seemed to really miss this category of foods.

Whole Foods Dietary Template

Whole grains, vegetables, beans and fruits are good sources of heart-healthy antioxidants and lower cholesterol with their fiber content. Soluble fiber, as found in whole grains, beans and fiber products containing psyllium, have been proven to help lower cholesterol in the intestines by absorbing cholesterol in the same way a sponge absorbs water.

On a daily basis, our film participants were consuming:

- One to two cups of cooked whole grains, previously soaked overnight
- Approximately, $\frac{1}{2}$ to $\frac{3}{4}$'s cup of beans
- At least three cups of vegetables, cooked in a variety of oil-free styles (*steamed, water-fried, baked and as salads*). Vegetables such as the **Green Category** (*broccoli, collard greens, bok choy, kale, and root vegetable tops such as radish greens were included*); the **Root Vegetable Category** (*carrots, onions, radishes, parsnips, turnips, etc.*).
- Moderate amount of fruit, as a late-afternoon snack
- Beverages were limited to caffeine-free teas.

Participants were advised to AVOID fruit juice, caffeine, alcohol and all simple sugar sweeteners (such as: *maple syrup, honey, fructose, refined sugar, brown sugar, etc.*). No nutritional supplements during this period were recommended. We wanted to determine food sensitivities and reactions before suggestion any supplementation was added.

Essential Dietary Strategies

1. Eat A Lot More Fiber-Rich Foods (Especially Soluble Fiber From Foods Like Beans, Oats, Barley, Fruits, And Vegetables).

Foods naturally rich in soluble fiber have proven particularly good at lowering cholesterol. Excellent sources include oats, oat bran, barley, peas, yams, sweet potatoes and other potatoes, as well as legumes or beans, such as pinto beans, black beans, garbanzo beans, and peas. Most vegetables are rich in soluble fiber, particularly root varieties. Recommended fruit sources were seasonal varieties of berries, pears, apricots, peaches and apples. Having a grain in the morning, such as oatmeal, works well to set the fiber action of regulating bowel for the following morning. A healthy individual will have a 17 to 24 hour “transit” time—from mouth to evacuation. For this reason, having a whole fiber source in the morning works well to help the intestines regulate for the following day.

Note about Oats: If you're looking to lower your cholesterol, the key may be simply changing your morning meal. Switching up your breakfast to contain two servings of oats can lower LDL cholesterol (the bad kind) by 5.3% in only 6 weeks! The key to this cholesterol buster is beta-glucan, a substance in oats that absorbs LDL, which your body then excretes.

2. Choose Protein-Rich Plant Foods (Such As Legumes Or Beans, Nuts, And Seeds) Over Meat.

Common legumes include lentils, chick-peas (garbanzo), pinto/red/white/navy/black and aduki beans, as well as bean products such as tempeh and less often, tofu. Beans and bean products are full of phyto-nutrients—a healthy, protein-packed alternative to meat. Legumes also lower total cholesterol, LDL cholesterol, regulate blood sugar, and insulin levels, and are thought to lower cancer risk. A modest amount of nuts and seeds have also been proven to lower LDL cholesterol levels. While sea-salt is important, it's more important to cook it into foods toward the end of the cooking moderately. Too much salt, as well as too little, both elevate blood pressure. When your salt is too low (or absent), the body produces *renin* (part a hormone system of chemicals that regulate blood pressure and our fluid balance). Renin can mimic the effect of a high salt and elevate blood pressure, so avoiding salt altogether is unnecessary, if not potentially harmful. To avoid gaining weight, don't eat more than 1 ounce of nuts on a daily basis. Nuts and seeds are dense with calories—averaging about 175 calories per ounce.

Sometimes, bean digestion is what makes some people hesitate to include them in the daily diet. Learning how to properly cook beans (or re-cook in the case of canned versions) can make all the difference. Additionally, the use of salt is an important factor in making offensive gas-starches, more digestible. Finally, refraining from a dessert right after a bean meal can mean the difference between even and uneventful digestion, or unintentionally alienating friends and strangers!

3. Lose As Much Excess Weight As Possible—Beware Of Olive Oil Myths

Losing excess weight is suggested for *many* reasons, from bettering your cholesterol levels to preventing numerous diseases that include, type 2 diabetes, high blood pressure, heart attacks, strokes, gout, and a number of cancers.

Do keep in mind that it is important to limit fat intake, even so-called “good” fats like olive oil, because any fat is dense with calories, which means heavy consumption can easily lead to a heavy body. While most people are using olive oil with glee and positive referencing to healthy, long-lived Mediterranean cultures, medical research has actually shown the opposite it true.

When scientists fed a monounsaturated fat-rich diet to monkeys for five years, the monkeys developed extensive atherosclerotic plaques in their coronary arteries. Additionally, a number of human studies have disapproved many of the health claims of those championing olive oil's heart-health claims.

Researchers from the University of Crete (Greece) compared residents of Crete who had heart disease with residents free of the disease. They found that the residents with heart disease ate a diet with “significantly higher daily intakes” of monounsaturated fats

(principally from olive oil) as well as higher fat intake overall. The misconception that olive oil is “healthy” comes from its presence in the Mediterranean diet, which compared to the standard American diet, is far healthier. However, layering olive oil in your meals does NOT make your meal suddenly “heart healthy.” Excessive olive oil can stiffen your arteries (1), contribute to the development of artery-clogging atherosclerotic plaques (2) and damage arterial health (3).

- (1) New England Journal of Medicine: [Primary Prevention of Cardiovascular Disease with a Mediterranean Diet](#)
- (2) [The postprandial effect of components of the Mediterranean diet on endothelial function](#). Vogel RA, Corretti MC, Plotnick GD. Department of Medicine, University of Maryland School of Medicine. J Am Coll Cardiol. 2000 Nov 1;36(5):1455-60.
- (3) [The influence of diet on the appearance of new lesions in human coronary arteries](#). Blankenhorn DH, Johnson RL, Mack WJ, el Zein HA, Vailas LI. Atherosclerosis Research Institute, University of Southern California School of Medicine. JAMA. 1990 Mar 23-30;263(12):1646-52.

4. Drink As Thirst Dictates—Finding Your Balance Point.

The solution to increasing circulation and toxin filtration is not waterlogging your blood. The 8-glass a day rule was dethroned about 20 years ago. Some food movements recommend to “restrict” fluid, and this is the other extreme. *Reduce*, might be a more operative word than *restrict*. If you’re eating a vegan diet, 85 to 90% of your food will be water. However, if you’re eating the extremes of animal protein/salt, as well as sugar/alcohol, both of these extremes require greater amounts of fluid to dilute these excesses, so naturally you will crave more fluid:



If you examine the standard western diet, where there are plentiful amounts of sugar/alcohol and animal protein/salt, there is a greater need for fluid. Therefore, suggestions such as “drink plenty of water” were actually borne out of necessity. However, if you are eating a plant-based whole food diet, you’ll find that you don’t have a great need for “plentiful fluids” and can get by with much less. Tea after meals, filtered spring water, soups, etc., as thirst and need dictates will be sufficient.

Other factors that drive the need for more liquid might be: *excessive supplement use, excess flour and baked products, medication usage, exercise*, etc. Therefore, liquid needs are very individual and cannot be rigidly suggested. Excessive fluids can create a number of health problems asserting the adage that the hallmark of health is balance, not adherence to extremes.

5. Avoid Alcohol

Drinking too much alcohol can actually increase your risk for heart disease and stroke raise your blood pressure, contribute to obesity, and increase the levels of fats called, triglycerides in the blood.

Excessive drinking also can lead to heart muscle disease (cardiomyopathy), irregular heartbeat (arrhythmia), and stroke. Eventually, heavy alcohol use can leave the heart too weak to pump efficiently, a condition called congestive heart failure

Because drinking alcohol also has other downsides, including increased risk of some cancers, cirrhosis of the liver, and an increased risk of accidents, the American Heart Association does not recommend that you start drinking wine or any other alcoholic beverages specifically to lower your cholesterol, or improve your heart health. Instead, eating a healthy diet, and exercising regularly to keep cholesterol levels in check.

High triglycerides are usually caused by other conditions, such as:

- Obesity
- Poorly controlled diabetes
- Underactive thyroid (hypothyroidism)
- Kidney disease
- Regularly eating more calories than you burn
- Drinking excessive alcohol.
- Some medicines may raise triglycerides. These include:
 - 1) Tamoxifen
 - 2) Steroids
 - 3) Beta-blockers
 - 4) Diuretics
 - 5) Estrogen
 - 6) Birth Control Pills
 - 7) Sometimes, high triglycerides can run in families (familial)

How to Lower High Triglycerides

- Lose Weight and Remain At that Healthy Weight *
- Severely Limit Dietary Fats and Eliminate Refined Sugars
- Exercise Regularly
- If You're a Smoker: STOP
- Avoid Alcohol

*** A Note About Thyroid Function**

When beginning a program to reduce cholesterol levels and strengthen your health, it's important to make sure that you have normal thyroid functioning. Hypothyroidism (under-active thyroid) often correlates with high cholesterol levels. Talk to your physician about checking your thyroid and possibly getting a thyroid panel. Such blood work can be invaluable. Improving thyroid function can help to naturally reduce cholesterol levels.

Vitamin & Herbal Support

The following supplements and herbs have shown benefit in reducing cholesterol, triglyceride and homocysteine levels:

Garlic, Red Yeast Rice, Niacin (nicotinic acid), Folic Acid (B-Vitamin multiples), Co-Q-10, **Curcumin** (Tumeric source), **Green Tea**, **Fish Oil** (vegan Omega-3 sources available)

— **Garlic**

Aside from adding a welcomed zing to almost any dish, garlic has been found to lower cholesterol, prevent blood clots, reduce blood pressure, and protect against infections. Now research finds that garlic helps stop artery-clogging plaque at its earliest stage by keeping cholesterol particles from sticking to artery walls. Try for two to four fresh cloves a day.

— **CoEnzyme-Q10 (Co-Q10)**

This powerful antioxidant benefits heart health by protecting LDL cholesterol from oxidation and by re-energizing the mitochondria in the heart cells, which is where energy metabolism occurs. CoQ10 may also help lower your blood pressure.

— **Fish Oil ***

Fish oil contains an abundance of essential omega-3 fatty acids (omega-3s) that have been shown to lower triglyceride (blood fat) levels, minimize inflammation and clotting, and increase HDL ("good") cholesterol. Research indicates that omega-3s may help reduce the risk and symptoms of a variety of disorders influenced by inflammation, including heart attack and stroke. You can add omega-3s to your diet by eating more cold water fish such as wild Alaskan salmon, sardines, herring, mackerel and black cod. When choosing a supplement, look for one derived from molecularly distilled fish oils - these are naturally high in both EPA and DHA while being low in contaminants. Choose a supplement brand that has been independently tested and guaranteed to be free of heavy metals such as mercury and lead, and other environmental toxins including polychlorinated biphenyls, also known as PCBs.

* **Note:** For Vegans, there are companies (Source Naturals, Nordic Naturals, Nature's Science, etc., that make vegan sources of Omega-3 nutrients)

A Word About Homocysteine

Beyond cholesterol levels, there are other factors that can also cause a heart attack or stroke and that is an amino acid found in the blood, called *Homocysteine*. This amino acid is directly associated with an increased risk of heart attack and stroke. Homocysteine levels have been shown to be over 47% more accurate at predicting heart disease, rather than just relying on cholesterol readings. The three vitamins, taken in their proper ratios that have shown to successfully lower homosysteine levels, are: B-6, B-9 and B-12. Most Multi-B Complex supplements include this ratio.

Supplement Bottom Line

It's easy to build a false reliance on supplementation, most of which is questionable anyway. It's a contentious issue because the research--if you can trust it--is divided. The medical end suggests that supplements are unnecessary and end up in your urine, the supplement industry claims that they are necessary and part of an evolving and progressive health foundation to fight poor quality soil and an onslaught of toxicity. Is it really as black and white as that?

I once had a teacher who used to say that *real health is our universal birthright. And that birthright is something that should be accessible to all and not just exclusively to those who can afford the high cost of exotic, rare or manufactured isolated nutrients.* The cost of a healthy whole-foods diet is approximately 50 to 65% lower than what most people pay for package standard food. If you're one of the individuals who think real health can only be obtained only with specialized ingredients from the Amazon (or isolated nutrients from a lab), you might be laboring over scientific fallacy.

Yet, some supplemental nutrients have established a place in reliable health, such as antioxidants, anti-inflammatories, folate, ginseng, B-12, enzymes and others. So, it's *not* entirely black and white—there *is* a middle ground.

The real bottom-line is to establish a sensitivity that you know with conviction is best for your body. This can only be done through the experience of diet and lifestyle and then allowing that experience to dictate what it best for you instead of relying on profit-seeking propaganda or “scientific literature” screaming about the perils of deficiency. *In my opinion, truth is, most of our problems stem from excess and not deficiency!* With cholesterol supplements, you travel three steps in a positive direction, but with a poor diet and lifestyle, you'll travel 5 steps backwards. Seems kind of futile, doesn't it?

Consider getting some blood work as a base-line and then following this PDFs recommendations for 6 weeks. Then, get new blood work and compare for yourself. Your findings will amuse and inspire you, while liberating you from the empty fear that you have no control over your health. You do! More than you realize.

Use food as a primary treatment/defense and later experiment with supplements and herbs to *enhance* your health—moderately, flexibly and for periods of limited time. That experience will be your best teacher.

“The part can never be well unless the whole is well.”

— Plato





VERNE VARONA

Verne Varona has become known as one of the most captivating and dynamic health educators in the country. For forty years, his lectures, workshops and media appearances have motivated thousands of people to take better and more conscious care of their health.

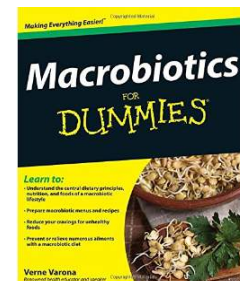
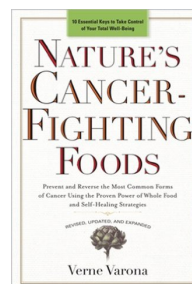
Verne has become a renowned keynote speaker throughout the US, Canada and Europe with a captivating style that uses humor, insight and practical science to improve and enrich the lives of many. He studied Traditional Chinese Medicine and nutrition at the East West Foundation of Boston, Massachusetts (1970-1974).

He is a frequent guest on a variety of media platforms where his research expertise and entertaining teaching style make him a welcome and often repeat visitor. For five years, Verne was the nutritional consultant and co-founder of a popular Los Angeles medical group with a clientele that featured well-known entertainment and sports professionals.

With his physician associate, Verne co-created, The ODDS Program (Off Dangerous Drugs Safely); a dietary program designed to reverse pharmaceutical drug dependency such as hypertension, diabetes and over-the-counter drug dependency with dietary and lifestyle guidelines that are featured in his published books.

Verne's first book, *Nature's Cancer-Fighting Foods* (2001), was revised and updated in 2014 and is available from Perigee Books (Penguin/Random House Group). Verne's second book, *Macrobiotics for Dummies* (May, 2009—Wiley Publications), is part of the internationally popular *Dummies* series and is a comprehensive work embracing a flexible, multi-cultural health perspective on body, mind and spirit.

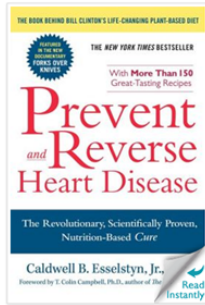
Verne is a native New Yorker living in Manhattan and currently working on several multi-media projects. He has a comprehensive counseling practice that he has developed through Skype and counsels throughout the world. He can be reached at: vv@vernevarona.com



The follow several pages are devoted to conscious physicians who are supportive of a plant-based diet for cardiac disease reversal. They are individuals who are walking the talk—and their patient reversals are living testimonies. There are a good number of American physicians doing this work. Here are three outstanding pioneers:

Caldwell B. Esselstyn, Jr., MD

Cleveland Clinic Wellness Institute — *Author, Prevent & Reverse Heart Disease*



PREVENT AND REVERSE HEART DISEASE

The Revolutionary, scientifically Proven, Nutrition-Based Cure

by Caldwell B. Esselstyn, Jr., MD

“My message is clear and absolute: coronary artery disease need not exist, and if it does, it need not progress. It is my dream that one day we may entirely abolish heart disease, the scourge of the affluent, modern West, along with an impressive roster of other chronic illnesses.

I believe that coronary artery disease is preventable, and that even after it is underway, its progress can be stopped, its insidious effects reversed. I believe, and my work over the past twenty years has demonstrated, that all this can be accomplished without expensive mechanical intervention and with minimal use of drugs. The key lies in nutrition—specifically, in abandoning the toxic American diet and maintaining cholesterol levels well below those historically recommended by health policy experts.

The bottom line of the nutritional program I recommend is that it contains not a single item of any food known to cause or promote the development of vascular disease. I often ask patients to compare their coronary artery disease to a house fire. Your house is on fire because eating the wrong foods has given you heart disease. You are spraying gasoline on the fire by continuing to eat the very same foods that caused the disease in the first place.

I don't want my patients to pour a single thimbleful of gasoline on the fire. Stopping the gasoline puts out the fire. Reforming the way you eat will end the heart disease.

Here are the rules of my program in their simplest form:

- You may not eat anything with a mother or a face (no meat, poultry, or fish).
- You cannot eat dairy products.
- You must not consume oil of any kind—not a drop. (Yes, you devotees of the Mediterranean Diet, that includes olive oil, as I explain in Chapter 10 of my book, “Prevent & Reverse Heart Disease.”)
- Generally, you cannot eat nuts or avocados.

You can eat a wonderful variety of delicious, nutrient-dense foods :

- All vegetables except avocado. Leafy green vegetables, root vegetables, veggies that are red, green, purple, orange, and yellow and everything in between
- All legumes—beans, peas, and lentils of all varieties.
- All whole grains and products, such as bread and pasta, that are made from them—as long as they do not contain added fats.
- All fruits.

It works. In the first continuous twelve-year study of the effects of nutrition in severely ill patients, which I will describe in this book, those who complied with my program achieved total arrest of clinical progression and significant selective reversal of coronary artery disease. In fully compliant patients, we have seen angina disappear in a few weeks and abnormal stress test results return to normal.”

<http://www.dresselstyn.com/site/books/prevent-reverse/excerpt/>

Dean Ornish, M.D.

For more than 35 years, Dean Ornish, M.D. and his colleagues at the non-profit Preventive Medicine Research Institute (PMRI) in collaboration with the University of California, San Francisco and other leading academic institutions, have conducted a series of research studies showing that changes in diet and lifestyle can make a powerful difference in our health and well-being, how quickly these changes may occur, and how dynamic these mechanisms can be. The Dr. Ornish's Program for Reversing Heart Disease is the first integrative lifestyle program for reversing heart disease and other chronic conditions that Medicare is covering under the specially created category of 'Intensive Cardiac Rehabilitation'.



“If you have heart disease and are not in need of emergency surgery, such as bypass, angioplasty or stent placement, you can reverse your heart disease by eliminating the behaviors that have contributed to your condition, and picking up healthy new habits. This means making big — and sustainable — changes to your diet, exercise routine and approach to stress management. If followed correctly, Dr. Ornish's 4-step plan to reverse your heart disease in 28 days may reduce the plaque clinging to your artery walls and

begin undoing decades of damage. For those who don't have heart disease, there is a wide spectrum of preventive choices you can make to live healthily.

First Step: Get the Plaque Out of Your Arteries

Trim the fat and overhaul your diet. **Under the Reversal Diet, only 10% of your diet comes from fat; 15-20% comes from protein; and 70-75% comes from complex carbohydrates.** Your body can start to heal once you stop doing what's causing the problem in the first place; if you stop consuming the food that contributed to the blockages in your arteries, your body will have a better chance of rebooting and recovering. Incorporate heart-healthy foods into your diet that contain protective and preventive nutrients. A plant-based diet of fruits, vegetables, whole grains, legumes and soy products in their natural, unrefined forms not only helps to reverse heart disease, but also possesses anti-cancer and anti-aging properties.

Second Step: Reduce Inflammation of the Artery Walls

Exercise your arteries. Exercise helps to strip away the irritating materials that contribute to artery ruptures. Start with 30 minutes throughout your day. You don't necessarily have to do all 30 minutes at once with a trip to the gym, though working up a sweat is encouraged. You can exercise by making simple modifications to your daily routine. Walk more. Take the stairs. Park your car further away from the entrance. Play with your kids or grandkids.

Third Step: Stop the Heart from Spasming and Make the Arteries More Elastic

Change your arteries to change your heart. Take up to one hour a day to meditate or to engage in meditative exercises, like yoga. Calming yourself and taking control of your stress will actually serve to relax the arteries and reduce the buildup of blockages in them.

Fourth Step: Open Your Heart

Involve your family and friends; their support will reinforce your efforts. Love and support are powerful factors in healing heart disease. For his book *Love & Survival*, Dr. Ornish surveyed hundreds of studies showing that people who feel loved and supported are many times less likely to get sick and die prematurely than those who are lonely and depressed. Open your eyes to a new approach to wellness and open up your arteries.

When you make these lifestyle changes, you're likely to feel so much better so quickly, it reframes the reason for making these changes, as explained in Dr. Ornish's *The Spectrum*, from the "fear of dying" to the "joy of living." Remember that it's less about sacrifice as it is more about achieving a rewarding and sustainable new healthy lifestyle for the long haul."

<http://ornishspectrum.com/undo-it/>



The Pritikin Longevity Center & Spa,
Miami, Florida

YES. HEALTHY LIFESTYLE CHANGES CAN HALT PLAQUE BUILD-UP IN THE ARTERIES. THEY CAN ALSO LOWER RISK OF TYPE 2 DIABETES AND HYPERTENSION, AND HELP SHED EXCESS WEIGHT.

Heart disease is virtually absent in cultures that eat fiber-rich, plant-based diets like the Pritikin Program, such as the Tarahumara Indians of northern Mexico, the Papua Highlanders of New Guinea, and the people of rural China. In fact, noted Dr. Colin Campbell of Cornell University in his book *The China Study*, which details his research in the 1990s on the dietary habits of China, hundreds of thousands of rural Chinese go for years *without a single documented heart attack*.

The Pritikin Program has been found to eliminate the need for coronary bypass surgery, as well as relieve angina (chest) pain. A five-year follow-up of 64 men who came to the Pritikin Longevity Center instead of undergoing bypass surgery (which had been recommended by their heart surgeons) found that 80% never needed the surgery. Of those taking drugs for angina pain, 62% left the Center drug-free.

The Pritikin Program has also been found to dramatically lower cholesterol levels. Among more than 4,500 men and women attending the Pritikin Longevity Center, documented in the *Archives of Internal Medicine*, LDL cholesterol fell on average 23% in three weeks. Non-HDL cholesterol fell 24%.

<https://www.pritikin.com/your-health/health-benefits/reverse-heart-disease.html>

"MORBUS EST VITA PRAETER NATURAM"

(Disease is from living beyond the natural way.)