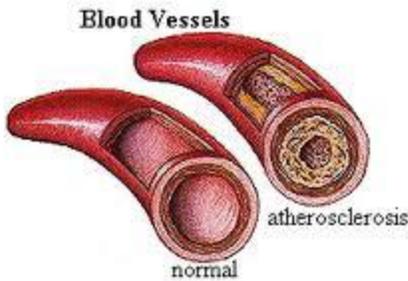


# Atherosclerosis: A Herbal Prevention Program

By Geoff D'Arcy, Lic.Ac., D.O.M.

*"The interrelationships of homocysteine, B vitamins, and atherosclerosis, (and) the findings of a significant inverse relation between dietary intake of folate and vitamin B<sub>6</sub> and mortality and morbidity from cardiovascular disease during a 14-year period in the Nurses' Health Study... with intervention through supplementation, fortification, improved dietary intake of folate and vitamin B<sub>6</sub>, ..., the decline in US cardiovascular mortality and morbidity will continue. Therefore, the simplest dietary precautions, adopted early in life, can substantially lower the risk of coronary artery disease."* --Professor of Medicine The George Washington University, Washington, DC



Atherosclerosis is responsible for at least 43% of all deaths in the United States. Atherosclerosis and arteriosclerosis are generic terms for a number of diseases in which the arterial wall becomes thickened and loses elasticity. These changes in the arterial walls lead to a blockage of the blood and oxygen supply through the coronary arteries due to a hardening of the artery walls. The hardening is due to a buildup of plaque containing cholesterol, fatty material and cellular debris. These fatty deposits start developing as streaks just inside the lining of arteries. Recent studies show that some streaking is found even in teenagers, and are acquired by an increasing proportion of the

population from then on. About one quarter of people in their late twenties have them, and most have acquired them by the time they are in their sixties.

As a person ages, the streaks grow into fat deposits. The growing blob inside the arterial wall pushes the lining of the artery inward into the lumen of the vessel, constricting blood flow and weakening the artery lining. If the lining breaks, the blob can proceed into the lumen of the artery, clogging it there, or it can be carried to other parts of the body. If the clogging occurs in the coronary artery, which supplies blood to the heart, the result can be a heart attack because the heart cells that are supplied by that vessel cannot receive oxygen and die. If the clogging occurs in a blood vessel in the brain, a stroke, the brain tissue supplied by the artery similarly dies.

Atherosclerosis is largely a disease of diet and lifestyle, so many of these deaths could be avoided through healthful diet and lifestyle changes. Modern medicine has shied away from statements of causation, but risk factors can typically be identified. i.e., certain aspects of a person's lifestyle and biology are statistically associated with an increased risk of atherosclerosis.

## The major risk factors include:

- Smoking
- High fat diet
- Elevated cholesterol levels
- Elevated iron levels
- High blood pressure
- Diabetes
- Physical inactivity, lack of exercise
- Markers of inflammation
- Genes

## Also as important as the conventional risk factors:



- Low anti-oxidant status
- Low levels of essential fatty acids
- Low levels of magnesium and potassium
- Increased platelet aggregation
- Increased fibrinogen formation
- Elevated levels of homocysteine
- Type A personality

None of these risk factors are primary nor can they be considered causes. If all non infectious risk factors are combined, they explain only about half of the risk of acquiring atherosclerosis. In other words, about half of the people acquire it without elevated risk factors.

High iron levels are an environmental risk factor, explaining why women are less vulnerable than men before menopause, because menstruation lowers their iron stores. After menopause, iron levels in women increase and so does their risk. Women who have high iron levels are more likely to have atherosclerosis than women who have lower levels. The same is true for men. It also helps explain the association between red meat and atherosclerosis because the form of iron obtained in red meat tends to be less suppressible by the body than iron from other sources.

Second hand smokers have an increased risk factor of atherosclerosis that is about one third that of smokers.

### How do you decrease your risk?

1. Quit smoking.
2. Lower your cholesterol.

Reduce the amount of saturated fat, cholesterol and total fat from your diet. The best way to achieve this goal is to eat fewer animal products and more plant foods. Substitute red meats with fish and white meat; use soy based alternatives, decrease the number of eggs per week, use egg beaters or tofu, use low fat dairy products, substitute vegetable oils for butter, lard and other saturated fats, eat fruits and vegetables daily and cut down on all refined sugar and flour products, use no or low salt, and drink herbal teas, green tea, or vegetable juices instead of soft drinks and coffee.

3. Stay away from margarine, and foods containing trans fatty acids and partially hydrogenated oils.

These foods actually raise your LDL levels and lower your HDL levels of cholesterol and interfere with essential fatty acid metabolism. Instead, use natural polyunsaturated oils like safflower, soy and flaxseed oils to meet your essential fatty acids requirements. Just 1 tablespoon per day is enough.

4. Eat more cold water fish and take 1 tablespoon of flaxseed oil daily.

Salmon, mackerel, herring, halibut are good sources of omega-3 fatty acids. Flaxseed oil is a good source of alpha linolenic acid, an omega-3 oil that the body can convert to eicosapentaenoic acid (EPA).

5. Eat 5 or more servings of a combination of vegetables and fruits.

Numerous studies show that a diet high in carotene rich and flavonoid rich fruits and vegetables reduces the risk of heart disease and strokes. Green leafy vegetables, yellow-orange colored fruits and

vegetables, such as carrots, apricots, mangoes, yams and squash. Red and purple vegetables and fruits such as tomatoes, red cabbage, berries, and plums. Legumes, grains and seeds are rich sources of carotenoids. Good sources of flavonoids include: citrus fruits, berries, onions, parsley, legumes, green tea and red wine.

6. Increase the intake of fiber and complex carbohydrates by eating 6 or more servings per day of whole grain breads, cereals, and legumes.
7. Eat less animal protein.
8. Cook with olive or canola oil.
9. Limit your intake of refined carbohydrates (sugar).
10. Eat breakfast.

### Natural Supplements that help reduce your risk of heart disease

1. **CHOL-CLEAR FORMULA:** 2 capsules, 3 times daily for 3 months.
2. **GINKGO:** 1 capsule, 3 times day for 3 months.
3. **MULTI-VITAMIN; ULTRA PREVENTIVE X:** as directed by manufacturer.

### SUPPLEMENTS

#### CHOL-CLEAR

A major ingredient, **Garlic**, has the ability to lower cholesterol and blood pressure. Via supplement and/or use in your diet, suggested amount is up to 4,000 mg. - or the equivalent of 1-4 cloves per day. A double-blind, placebo-controlled study that followed 152 individuals for 4 years, taking 900 mg per day of standardized garlic powder, found significantly slower development of atherosclerosis as measured by ultrasound.<sup>1</sup> In another study, 432 individuals who had suffered a heart attack, were given either garlic oil extract or no treatment over a period of 3 years. The results showed a significant reduction of second heart attacks and about a 50% reduction in death rate among those taking garlic. It also supports the immune system to help the body fight off infections. **Gugulipid**, the standardized extract of the mukul myrrh tree, native to India, lowers cholesterol by increasing the ability of the liver to metabolize LDL cholesterol. It also has a mild effect in inhibiting platelet aggregation. (25 milligrams guggulsterone per 500 mg cap.) An extract of the Indian mukul myrrh tree known as gugulipid may reduce total cholesterol to a similar extent as garlic.

#### GINKGO

Germany's Commission E recommends ginkgo for the treatment of restricted circulation in the legs due to hardening of the arteries known as intermittent claudication.<sup>1,2,3,4</sup> Numerous studies have found that ginkgo extracts can improve circulation.<sup>5,6</sup> We don't know exactly how ginkgo does this, but unknown constituents in the herb appear to make the blood more fluid, reduce the tendency toward blood clots, extend the life of a natural blood vessel, and act as an antioxidant.<sup>7,8</sup> It has been shown to increase blood circulation to the brain and to the arms and legs. According to a 1992 article published in Lancet, over 40 double-blind controlled trials have evaluated the benefits of ginkgo in treating age-related mental decline.<sup>8</sup> Of these, eight were rated of good quality, involving a total of about 1,000 people and producing positive results.

#### MULTI-VITAMIN; ULTRA PREVENTIVE X:

as directed by manufacturer Studies show that the higher the **Vitamin C** levels in the blood, the lower the



total cholesterol and triglycerides, and the higher the HDL. **Vitamin E** is a blood thinner and powerful antioxidant, and it helps to protect the arteries from plaque build-up. **Folic Acid**, 400 micrograms, **Vitamin B-6**, 100 milligrams and **Vitamin-12**, 100 micrograms daily helps reduce homocysteine levels. Research in the last decade has linked homocysteine to increased risk of heart disease, stroke, and other diseases involving blood vessels. Unconverted homocysteine can build up, irritating the blood vessels and possibly causing blockages.

**Drink Green Tea.** Some but not all observational studies suggest that green tea might help prevent heart disease. (see references below).

**Foods.** Avoid all dairy products, animal foods, fried, processed foods, and sugars. Avoid all red meat, because the form of iron obtained in red meat tends to be less suppressible by the body than other recommended foods. Increase cold-water fish like salmon, herring, mackerel and tuna. Increase fresh vegetables, nuts, fruits, soy products, whole grains & beans. Eat seaweed to help detoxify iron and other heavy metals from the body. The association between red meat and atherosclerosis is because the form of iron obtained in red meat tends to be less suppressible by the body than iron from other sources such as vitamins. Diets low in potassium and high in sodium contribute to high blood pressure. While restricting your intake of salt, many will need to increase their intake of potassium rich foods. The desired potassium to salt ratio of 5:1, most Americans maintain a 1:2 ratio of salt. A natural diet rich in fruits and vegetables can produce a ratio greater than 100:1. Many studies show that increasing dietary potassium intake can lower blood pressure. In addition, supplementation alone can produce significant reductions in blood pressure in people with hypertension. Typically, these studies have utilized dosages ranging from 2.5 grams to 5 grams of potassium per day. Potassium supplementation can be especially helpful in people over 65. Safe recommended daily dietary intakes, is 1.9 grams to 5.6 grams.

**Exercise.** Moderate and often produces the best results.

**Other.** If you drink alcohol, drink very moderately. Increase dietary fiber; change to a low fat diet; lower cholesterol levels; lower elevated iron levels. Address high blood pressure, and quit smoking. Move your bowels daily. Maintain correct body weight. High iron levels are an environmental risk factor, explaining why women are less vulnerable than men before menopause, since menstruation lowers their iron stores.

**Stress and High Blood Pressure.** Relaxation, yoga, breathing exercises, meditation, all can help and should be pursued. Many studies have associated high cholesterol with stress. One interesting study compared two groups against each other, divorcees versus non-divorcees the divorcees scored higher. Another compared Israeli combatants against Israeli non-combatants in the six day war. The combatants scored higher. 20 minutes of relaxation helps to switch-off the fight or flight response caused by stress.

**Learn to manage your time more effectively.** Learning to manage time ore effectively helps us take control of one of the stressors of the cardiovascular system, anxiety and stress hinders the processing of cholesterol.

**Herbs to boost your immune system such as the Immu-Boost Formula** may well play a crucial part in this plan if recent controversial theories prove true.

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## Immune Boost

- **Homocysteine, B Vitamins, and Atherosclerosis** Tsung O. Cheng, MD ., Professor of Medicine The George Washington University, Washington, DC

*\*The statements contained in this article have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.*

