



Getting Well Naturally

Hypercholesterolemia aka High Cholesterol

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Cholesterol is a soft waxy substance that is a natural component of the fats in the bloodstream and in all the cells of the body. While cholesterol is an essential part of a healthy body, high levels of cholesterol in the blood (known as hypercholesterolemia) increase a person's risk for cardiovascular disease, which can lead to stroke or heart attack.

The normal range for total blood cholesterol is between 140 and 200 mg per decilitre (mg/dL) of blood. Levels between 200 and 240 mg/dL indicate moderate risk, and levels surpassing 240 mg/dL indicate high risk. While total cholesterol level is important, it does not tell the whole story. There are two main types of cholesterol: low density lipoproteins (LDL) and high density lipoproteins (HDL). HDL is generally considered to be "good" cholesterol, while LDL is considered "bad." Triglycerides are a third type of fatty material found in the blood. While their role in heart disease is not entirely clear, it appears that as triglyceride levels rise, levels of "good" cholesterol fall. It is the complex interaction of these three types of lipids that is thrown off when a person has hypercholesterolemia. High cholesterol is characterized by elevated levels of LDL cholesterol, normal or low levels of HDL cholesterol, and normal or elevated levels of triglycerides.

Signs and Symptoms: In its preliminary stages, high cholesterol generally occurs without any symptoms. For this reason, screening through routine blood tests is crucial for early detection. An initial blood test is done to check a "random" measurement of total and HDL cholesterol, meaning that the test is performed at any time during the day, regardless of what has been eaten. Those with abnormal levels (total cholesterol more than 200 mg/dL or HDL less than 40 mg/dL), will go

on to have a test called fasting lipid profile (in which the person being tested refrains from eating for 8 to 12 hours, usually overnight, prior to the test).

SOME LIFESTYLE CHANGE SUGGESTIONS:

Changing eating habits is key in preventing high cholesterol. Other lifestyle changes that can reduce the risk of developing high cholesterol and cardiovascular disease include maintaining a normal weight and increasing physical activity, DO NOT SMOKE, and limit alcoholic intake to not more than 1 glass of wine a day. Red wine has been shown beneficial in lowering cholesterol but not in excess of 1 glass per day.

Being overweight increases risk of high cholesterol and heart disease. Even small degrees of weight loss can make nutritional changes more effective in lowering LDL—a 5 to 10 pound weight loss can double the LDL reduction achieved by dietary adjustment alone.

It is imperative to participate in daily exercise. Regular physical activity by itself both reduces the risk of death from heart disease and enhances the effects of diet on LDL cholesterol levels. Moderate exercise three to five times per week (the equivalent of walking 7 to 14 miles per week) can help promote weight loss in overweight individuals, reduce LDL and triglyceride levels, and produce favorable levels of HDL. Exercise may also lower blood pressure.

SOME NUTRITIONAL SUGGESTIONS:

The best ways to lower cholesterol through diet include the following: (1) Reducing the amounts of saturated fat and cholesterol consumed each day (2) Increasing daily consumption of fruits,

vegetables, fish, and whole grains (3) Supplementing the diet with other protective components such as fiber.

There are a number of diets designed to keep cholesterol levels in check including the American Heart Association (AHA) diet, the Mediterranean diet, and the Ornish diet. They may vary in some areas but they all encourage the following:

Soluble Fibers: Such as those in psyllium husk, guar gum, and oat bran. Studies have shown psyllium, in particular, to be quite effective in lowering total as well as LDL cholesterol levels. Oat bran (3g per day) has also been shown to lower total cholesterol.

Soy: One study has shown that as little as 20g of soy protein per day is effective in reducing total cholesterol, but that 40 to 50g shows faster effects (in 3 weeks instead of 6). This evidence suggests that soy protein should be included in a healthy diet. In fact, since October of 1999, the FDA has allowed the labels of foods containing 6.25g or more of soy protein to carry the claim that these foods reduce the risk of heart disease.

SOME SUPPLEMENTAL SUGGESTIONS:

Antioxidants: A number of studies conducted over the last 10 years have reported beneficial results from the use of vitamin E supplements for the treatment and prevention of heart disease including for those with elevated cholesterol levels.

Preliminary evidence suggests that vitamin C (3 glasses of orange juice per day or up to 3g per day as a supplement) may help decrease total and LDL cholesterol and triglycerides, and increase HDL levels.

Coenzyme Q10 (CoQ10), also known as ubiquinone, is an antioxidant that is essential for energy production. Levels of CoQ10 have been found to be lower in people with high cholesterol when they were compared to healthy individuals of the same age. Furthermore, when person with high cholesterol take statin drugs, CoQ10 levels appear to decline in direct proportion to the level of decrease in cholesterol. This is particularly important to bear this in mind when statin drugs are used for long periods of time. Taking CoQ10 supplements, however, can correct the deficiency caused by statin medications without affecting the medication's positive effects on cholesterol levels.

Omega-3 fatty acids, such as docosahexaenoic acid

(DHA) and eicosapentaenoic acid (EPA): Numerous studies have reported the benefits of consuming fish oils, rich in the omega-3 fatty acids docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA), at doses ranging from 850mg to 4g per day for those with heart disease. Supplementation with DHA, for example, has been shown to reduce triglycerides and LDL levels and raise HDL levels.

Folic Acid (Vitamin B9) - High blood levels of homocysteine (an amino acid produced by the body) have been shown to increase the risk of heart attacks. Evidence suggests that high homocysteine levels are also related to low folate levels. This means that an adequate supply of folate and other B vitamins may be important, particularly for those with heart disease.

Plant sterols (fats present in fruits, vegetables, seeds, and nuts) appear to interfere with the absorption of cholesterol, thereby lowering the level of cholesterol in the blood.

L-carnitine is produced in the liver and kidneys from the amino acids lysine and methionine. It is stored in skeletal muscles and the heart and may be beneficial in treating conditions such as chest pain, heart attack, heart failure, diabetes, and abnormal cholesterol. In several human studies, supplementation with 2 to 3g per day of L-carnitine led to a significant reduction in total cholesterol and triglycerides, and to increases in HDL cholesterol levels.

Red yeast rice, the fermented product of rice and red yeast, has been used in China since at least 800 AD to make wine and preserve food, and for its medicinal properties, which are believed to include, among other things, improvement in blood circulation. Recent well-designed studies have shown that red yeast rice significantly reduces total cholesterol, LDL cholesterol, and triglyceride concentrations.

Brewer's yeast is an important source of chromium. Ninety percent of Americans are deficient in this important mineral. Chromium has demonstrated the ability to lower LDL levels in the blood and raise HDL levels.

SOME HERBAL SUGGESTIONS:

Green Tea: Green tea has demonstrated an ability to lower total cholesterol and raise HDL cholesterol in both animals and people.

Red clover: Preliminary studies suggest that

chemicals in red clover known as isoflavones may raise HDL levels, especially in menopausal women. Not all studies, however, have shown such positive effects. Further studies are needed before a definitive conclusion can be made.

Bilberry: Animal studies suggest that bilberry may prevent the oxidation of LDL cholesterol, thereby lessening the risk of this bad form of cholesterol contributing to the development of atherosclerotic plaque in the arteries.

Guggulipid, a traditional Ayurvedic medication used to treat high cholesterol, is widely used in India and was first recommended as a treatment for hardening of the arteries in 600 BC. It appears to be an effective cholesterol-lowering agent and its healthful effects are thought to be due to its ability to block the production of cholesterol in the liver.

Fenugreek: Fenugreek seeds have been shown to decrease LDL cholesterol and triglycerides, and increase HDL cholesterol levels. These effects appear to result from reduced intestinal absorption of cholesterol, and may be related to the high fiber content of the seed.

February is heart-health month!! If you started the year out with New Year's Resolutions that included getting in better health, then take the information in this article to "Heart" and re-commit to living better, living longer and living healthier.

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