



heart health



3 steps to lower cholesterol

90 days to optimal heart health

Lorna Vanderhaeghe, BSc

Despite decades of educating Canadians to eat fewer fat and cholesterol-containing foods, heart disease is still the number one cause of death. According to the Canadian Heart and Lung Association, 40 per cent of adults have high cholesterol levels, the leading risk factor for heart disease. New research now shows high triglycerides may be a better predictor of heart attack risk.

Cholesterol has gotten a bad rap

Cholesterol is essential to our health. Produced by the liver and found in many foods we eat, cholesterol is required for all repair mechanisms in the body, insulates our nerves, makes up cell membranes, and helps produce certain sex hormones. In most people, a protective feedback mechanism ensures that a decrease in the production of cholesterol from the liver will occur if we consume an abundance of cholesterol-containing foods. For others, cho-

“ High triglycerides may be a better predictor of heart disease than high cholesterol. ”

lesterol levels must be kept in balance with simple dietary changes and nutritional supplements.

There are two types of cholesterol: low-density lipoprotein (LDL) cholesterol and high-density lipoprotein (HDL) cholesterol. When LDL—“bad”

cholesterol—levels get too high, a slow build up of plaque occurs on the walls of blood vessels, narrowing the arteries and making the heart work harder to force blood through. If too much plaque accumulates, blood flow and oxygen to the heart is impeded, causing chest pain. If a blood clot forms and obstructs the artery, a heart attack may occur.

HDL cholesterol—“good” cholesterol—sweeps away LDL cholesterol, carrying it back to the liver and protecting against hardening of the arteries.



HDL also helps break down cholesterol into fatty acids essential for cell membrane integrity. Keeping the correct balance of LDL to HDL is essential to heart health.

Triglycerides are another risk factor

As part of your annual physical exam your doctor may check triglyceride levels along with your cholesterol levels. Triglycerides are the most common form of fat found in the body and high triglycerides may be a better predictor of heart disease than high cholesterol. Excess triglycerides are highly destructive to arterial walls, further promoting arteriosclerosis. Normal triglyceride levels are 140 to 160 milligrams per decilitre (mg/dL), with 140 mg/dL being the ideal level.

Lowering LDL blood cholesterol and

triglycerides and increasing HDL cholesterol has an enormous impact on reducing your risk of heart disease and stroke. The Heart and Stroke Foundation states, "for every one-per-cent drop in LDL cholesterol a two-per-cent reduction in risk of heart

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Plant sterols are nature’s cholesterol-lowering superstars.
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attack occurs and for every one-per-cent increase in HDL levels, the risk of heart attack drops three to four per cent.”

Follow these three steps to better heart health and watch your cholesterol and triglycerides return to a healthy state.

step 1: Do it with diet

Simple diet changes alone can reduce cholesterol by 20 per cent. A rainbow of fruits and vegetables, plenty of soluble fibre (oats, legumes, beans, and apples), and lots of water are all it takes. In 1994, the *Journal of the American Dietetic Association* reported that the higher the dietary intake of fibre, the greater the decrease in cholesterol levels. Oat bran and oatmeal were responsible for some of the greatest drops in total serum cholesterol.

Fish are rich in heart protective good fats so eat them often. Stop eating margarine as it and hydrogenated vegetable oils raise LDL cholesterol but also lower the protective HDL cholesterol. Use butter sparingly.

Reduce saturated fat (lard, animal



Are you at risk?

The Canadian Heart and Stroke Foundation offers these guidelines on total blood cholesterol in adults (measured in milligrams per decilitre):

Cholesterol desirable
- less than 200mg/dL
Borderline - 200 to 239 mg/dL
High - 240mg/dL or greater

HDL - greater than 35mg/dL

LDL desirable
less than 130mg/dL
Borderline - 130 to 159 mg/dL
High - 160mg/dL or greater

Triglycerides
less than 150mg/dL

fats) and decrease your egg consumption to one a day. As well, eliminate the following foods that contain oxidized cholesterol and trans-fatty acids: store-bought baked goods, crackers, and cookies, coffee whiteners and powdered milk, and bread and cake mixes.

Eating two medium-sized carrots every day can drop your cholesterol by 50 points in as little as 21 days, states Dr. Julian Whitaker in his *Wellness* newsletter.

step 2:

Nutrients to the rescue

The following nutrients have been extensively researched and proven to normalize cholesterol and triglycerides.

Niacin (Vitamin B₃)

Renowned medical doctor Abram Hoffer pioneered niacin (vitamin B₃) research. Since the early 1950s when he realized niacin helped lower high cholesterol, hundreds of studies have verified its effectiveness at lowering triglycerides while raising HDL cholesterol. In 1986, the Coronary Drug Project reported in the *Journal of the American College of Cardiology* that

niacin is the only lipid-lowering substance to reduce mortality. In 1994, niacin's lipid-lowering effects were compared to Lovastatin (a commonly prescribed lipid-lowering drug). Participants given 1.5 g of niacin saw better results overall and HDL was increased by 33 per cent, while Lovastatin increased HDL by only seven per cent.

High-dose niacin is not recommended for those with liver disease or diabetes. Others do not like the discomforts of the harmless "niacin flush", and dosages must be increased gradually. Those who dislike the side-effects of niacin may take inositol hexanicotinate, commonly sold in health food stores as non-flushing niacin, which has also been found not to increase liver enzymes. Check liver enzyme and cholesterol levels every three to six months while on regular niacin and reduce to a maintenance dose when your cholesterol and triglycerides are in the healthy range (see chart).

Take a high-potency B-complex along with niacin as B vitamins, B₆ and B₁₂, and folic acid have been shown to lower blood homocysteine levels, thereby reducing heart attack risk.



Gugulipid

Native to India and commonly used in Ayurvedic medicine to lower cholesterol, Gugulipid is the standardized extract of the mukul myrrh tree (*Commiphora mukul*). Clinical studies have confirmed its ability to increase the liver's metabolism of LDL cholesterol and lower both cholesterol and triglyceride levels. Gugulipids have been shown to be free of side-effects. Michael T. Murray, ND, in *Heart Disease and High Blood Pressure* (Prima, 1997), reports, "Typically, total cholesterol levels will drop to 27 per cent in a four to 12 week period, while LDL cholesterol and triglyceride levels will drop from 25 to 35 per cent and 22 to 30 per cent respectively. HDL cholesterol levels will increase by 16 to 20 per cent."

Phytosterols

Plant sterols are nature's cholesterol-lowering superstars. Fruits, vegetables, nuts, seeds, and soy products contain small amounts of plant sterols. Studies over the last five decades have confirmed that plant sterols are very effective at lowering high cholesterol.

Phytosterols (sterols) are very similar in structure to cholesterol and fill the receptor sites in the small intestine, reducing the absorption of cholesterol. Research has shown that adding one to two g of plant sterols to the average daily diet can reduce serum concentrations of LDL. About 0.25 g of plant sterols and 0.3 g of cholesterol occur naturally in the daily diet; a vegetarian diet includes twice that amount. Adding plant sterols to the diet can reduce cholesterol absorption by one-quarter to one-half.

The introduction of cholesterol-lowering statin drugs several decades put a hold on the use of plant sterols as a cholesterol-lowering agent. However, by the 1980s, sterols were recognized as naturally occurring substances that could be added to foods or taken as nutritional supplements with fabulous cholesterol-lowering action. Sterol-enriched margarines and salad dressings entered the marketplace. In September 2000, the US Food and Drug Association recognized

phytosterols as reducing the risk of coronary heart disease. New phytosterol-based supplements are available at health food stores.

step 3:

Change your lifestyle

The final step in reducing cholesterol and triglyceride levels is basic to good health. Make that body move to get your blood flowing and your heart pumping. Start an exercise program even if it means walking to the corner and back. Stop smoking today. Reduce your consumption of caffeine and alcohol, which raises triglyceride levels. Most important, don't skip breakfast. A national survey evaluating North American nutritional practices found that those who ate whole-grain cereal for breakfast had the lowest serum cholesterol levels. Those persons who ate cholesterol-laden breakfast foods still had lower total cholesterol than those who skipped breakfast altogether.

Follow the three steps to heart health and within 90 days you should see a dramatic reduction in LDL cholesterol and triglycerides and an increase in HDL cholesterol. **F**

Lorna Vanderhaeghe, BSc, is the author of several books, including the best-seller *Healthy Immunity: Scientifically Proven Natural Treatments for Conditions from A-Z* (Wiley — Sons, 2001). Her latest book is *No More HRT: Menopause, Treat the Cause* (Quarry Books, 2002). She is also senior editor of *Encyclopedia of Natural Healing* (alive Books, 2002) and associate editor of *alive Journal*.

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