

Is Cholesterol Really Bad?

Author: Dr. Joseph Pizzorno, ND

According to IMS Health, the most widely dispensed class of medications on a volume basis in 2008 was cholesterol-lowering drugs. (In fact, four of the top 10 most widely prescribed classes of drugs were for cardiovascular disease.)

We have all seen the many ads for statin drugs, low-fat foods, cholesterol-free foods, etc., all proclaiming they lower cholesterol, which is supposed to be good for our hearts. This must mean then that cholesterol is bad for us, right?

Well, no. Cholesterol is so important for our health that the body produces more of it each day than most of us consume in our diet. It is used to make cell walls, insulate nerves, carry fats in the blood, make steroidal hormones and vitamin D, and repair injuries—the list is long.

High Cholesterol and Heart Attacks

Over half (52 percent) of the people suffering a heart attack have normal cholesterol levels.(1). The problem is more with inflammation than with cholesterol. C-reactive protein (hsCRP), a marker of systemic inflammation, is a stronger predictor of cardiovascular events than LDL-cholesterol. While those with the highest level of LDL-cholesterol have a 1.5 percent increased risk of heart attack compared to those with the lowest levels, those with the highest level of hsCRP have an increased risk factor of 2.3 compared to the lowest.(2). A person with high levels of LDL-cholesterol but low levels of hsCRP has a lower risk of a heart attack than a person with low levels of LDL-cholesterol but high levels of hsCRP.

The primary reason LDL-cholesterol correlates with cardiovascular disease is that it is more easily oxidized. In fact, patients suffering a heart attack have oxidized LDL-cholesterol (oxLDL) twice as high as patients with angina but no heart attack, and four times as high as healthy controls.(3). With most people, their elevated cholesterol is almost all the more easily oxidized LDL form, hence the apparent correlation of heart disease with cholesterol. Interestingly, the reason statin drugs lower heart attack risk appears to be due more to their anti-inflammatory activity than their lowering of LDL-cholesterol.(4).

Cholesterol Oxidation and its Prevention

This is where lifestyle and nutrition are so critical. The following table shows the factors that oxidize cholesterol and the solutions:

Cause	Solution
Elevated homocysteine	Folic acid, B6, B12, betaine
Elevated hsCRP	Gamma (not alpha) tocopherol, selenium
Elevated cytokines	Nuts, dark chocolate
Insulin resistance	Achieve normal body weight. Use high viscosity fibers to normalize blood sugar.
Smoking	Stop
Excessive alcohol (more than 3-oz.)	Limit daily alcohol to one drink for women and two for men.
Excessive weight	Normalize body weight through diet and exercise.
Cooking foods with cholesterol at high temperatures in the presence of oxygen.	Bake and boil rather than fry and broil.
Deficiency of antioxidant nutrients	Proanthocyanidins, vitamins C and E, garlic, dark berries
Toxic metal exposure (lead, mercury, arsenic and cadmium)	Environmental awareness and detoxification
Polychlorinated biphenyls (PCBs)	Avoid
Inadequate blood glutathione levels	NAC, whey, silymarin, de-alcoholized beer

In Summary

Please note I am not saying that a very high level of cholesterol is good for you—it isn't. But for most people, the problem is inflammation causing oxidative damage to the important body chemical cholesterol, not modestly elevated cholesterol. Happily, this is avoidable and correctable through diet, lifestyle and appropriate supplements.

References

1. Ghandehari H, Kamal-Bahl S, Wong ND. Prevalence and extent of dyslipidemia and recommended lipid levels in US adults with and without cardiovascular comorbidities: the National Health and Nutrition Examination Survey 2003-2004. *Am Heart J.* Jul2008;156(1):112-9