"Good" and "bad" cholesterol

Dear Alice,

What is the difference between good and bad cholesterol and its effect upon the heart?

Answer

Dear Reader,

Although these two types of cholesterol have a reputation, it may surprise you to learn that neither are actually ?good? or ?bad.? To really get the story on cholesterol straight, it's necessary to understand what it does in the body. In general, cholesterol is a necessary component for living cells. It travels throughout the body via the bloodstream, often absorbed by cells to be used as a building block for vital compounds like estrogen, testosterone, and vitamin D. Since cholesterol can?t dissolve in water or blood, it must be ferried along the bloodstream by carriers called lipoproteins. The two types of lipoproteins are low-density lipoprotein (LDL) and high-density lipoprotein (HDL) and they are often referred to as ?bad? and ?good? cholesterol (respectively). Keep reading for more on the specific functions of each and the ways they can impact heart health. And, beyond the ?good? or the ?bad? here, take heart ? there are strategies to manage and maintain recommended cholesterol levels and keep the ticker in tip-top shape.

The role of LDL and HDL cholesterol in heart health centers around arterial plaque ? fatty, filmy deposits on the walls of the arteries. Generally speaking, it's recommended that LDL cholesterol levels be low and HDL cholesterol levels be high [2]. Why, you might ask? It has to do with how these lipoproteins function in the body ? which tends to coincide with their alleged ?good? and ?bad? reputations. LDL itself isn?t exactly ?bad?, but it can become problematic when there?s too much of it. Excess LDL cholesterol in the blood can form plaque, which hardens and narrows arteries over time. This plaque buildup may break apart or result in the formation of blood clots, which can block arteries that provide blood to key organs such as the brain, heart, arms, legs, or kidneys. In turn, that lack of oxygen and blood flow may lead to a heart attack or stroke. On the other hand, HDL cholesterol is considered the ?good? cholesterol because it helps prevent plaque from forming. It can be found scavenging for LDL cholesterol, carrying it away from the artery walls and back to the liver where it?s broken down.

In addition to HDL and LDL cholesterol levels, there?s another component to the lipids + heart health equation worth mentioning: triglycerides. These are essentially fats that are created
when excess calories are consumed to provide energy between meals. Although researchers haven’t really determined why, in high amounts and in combination with a high LDL or low HDL, triglycerides may also contribute to the thickening and hardening of the walls of the arteries, leading to an increased risk of heart disease (for more information, check out Impact of diet, exercise, and alcohol use on triglycerides [3] in the Go Ask Alice! archive).

So, how can a person optimize their cholesterol levels and maintain heart health? First, getting a baseline measurement may be in order. This can be done by speaking with a healthcare provider and getting a cholesterol screening test [4] to calculate your total cholesterol. If the total count is less than ideal, making dietary [5] changes that focus on foods that up HDL and lower LDL cholesterol may be recommended. Meeting with a registered dietician may help determine how to meet your dietary needs and match your lifestyle. Getting regular physical activity and managing stress can also positively impact cholesterol levels and heart health. Keep in mind that your body normally needs time to adjust to lifestyle changes, so you may not feel or see much difference in your body by implementing these strategies right away. If heart-healthy lifestyle strategies aren’t enough to see changes to in cholesterol levels, following up with a health care provider can inform next steps, which could include medication.

Here’s to being heart healthy!

Alice!
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