Is 'Good' Cholesterol Good? Scientists Begin to Wonder

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Published: March 15, 2004

For years, doctors have been saying that to prevent heart disease, patients should pay attention to both the so-called bad cholesterol, or L.D.L., and the good cholesterol, or H.D.L. The good, they said, can counteract the bad.

But now, some scientists say, new and continuing studies have called into question whether high levels of the good cholesterol are always good and, when they are beneficial, how much.

While some heart experts are not ready to change their treatment advice, others have concluded that H.D.L. should play at most a minor role in deciding whether to prescribe cholesterol-lowering drugs. In the meantime, doctors are calling researchers and asking what to do about patients with high H.D.L. levels, or what to do when their own H.D.L. levels are high, and patients are left with conflicting advice.

"There is so much confusion about this that it is unbelievable," said Dr. Steven Nissen, a cardiologist at the Cleveland Clinic.

The good cholesterol hypothesis comes from studies like the Framingham Heart Study, which has followed thousands of people in Framingham, Mass., for decades to see who developed heart disease. The studies showed that if two people had the same levels of the bad cholesterol, L.D.L., but different levels of the good cholesterol, H.D.L., the one with more H.D.L. was less likely to have heart disease.

Researchers examining the biochemistry of the two molecules learned that they have opposite roles. Both transport cholesterol, the fatty substance used to make cell membranes and some hormones, but they carry it in opposite directions.

L.D.L. ferries cholesterol to coronary arteries, where it imbeds and participates in the growth of plaque. H.D.L. takes cholesterol away from arteries to the liver, where it is disposed of.

So with epidemiological studies showing reduced heart disease risk and science showing why, it would seem the picture was clear: the more H.D.L. the better. One H.D.L. molecule might even cancel one of L.D.L.

Too simplistic, says Dr. Daniel Rader, a cholesterol researcher at the University of Pennsylvania School of Medicine. "Yes, high H.D.L. is generally a good thing, but it doesn't mean it is so powerful that it creates a total immunity to heart disease," he said.

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