

Clinical Update

High HDL Levels Protect Heart Health

Reduced risk of cardiovascular trouble even when LDL levels were low, study finds

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High levels of "good" HDL cholesterol protect against heart disease and stroke no matter what the blood levels of "bad" LDL cholesterol are, a new study shows.

The incidence of heart attack, stroke and other cardiovascular problems was 40 percent lower in the one-fifth of participants in a major trial who had the highest HDL cholesterol levels, regardless of their LDL cholesterol levels, according to a report in the Sept. 27 issue of the New England Journal of Medicine. The protective effect of high HDL readings was evident even in patients with an LDL reading below 70, well under the recommended level for heart health.

"The fundamental important message of the paper is that if you take HDL high enough, LDL doesn't matter," said study author Dr. Philip Barter, director of the Heart Research Institute in Sydney, Australia.

LDL cholesterol is involved in the formation of fatty plaques that eventually can block an artery; HDL cholesterol prevents the formation of those plaque.

"What we desperately need is a new drug to raise HDL levels," Barter said.

No such drug is in sight, however. Pfizer halted a 15,000-participant trial of an HDL-raising drug, torcetrapib, last year, because the death rate was higher in those taking the drug than in those taking a placebo. Pfizer had planned to market torcetrapib in combination with its LDL-lowering statin, Lipitor.

The only available HDL-raising drug therapy now available is large doses of niacin, which can increase HDL levels by about 20 percent, Barter said. But that treatment has annoying side effects, such as serious skin flushing and itching, he said. New formulations have lessened but not eliminated the side effects, he added.

Barter is now doing studies to determine whether the damage caused by torcetrapib is closely related to the drug's HDL-raising effect. "If the effect is unrelated to HDL, that class of drugs still has a future, because other members of the class might not have the problem," he said. "That still has to be put to the test. New members of the class of drugs could be introduced into clinical trials, probably as early as next year."

The new study has settled one issue, Barter said. "We saw a residual cardiovascular risk in some people with low LDL levels," he said. "It now appears that the major cause of that risk was low HDL levels. The implication is that we should be treating HDL as well as LDL."

"There is a residual risk, and we think that a substantial proportion of this is mediated by low HDL levels," said Dr. Vera Bittner, a professor of medicine at the University of Alabama at Birmingham and one of the trial leaders. "We all agree that we need drugs that can raise HDL levels, so that we can test the hypothesis that raising HDL will reduce risk."

But Bittner said she was "not quite willing to make the leap of faith that an HDL intervention will work, and the premature discontinuation of the [Pfizer] trial proves my point."