

Low HDL a sign, maybe not a cause, of CVD

By ACSH Staff — December 5, 2011

Contrary to conventional wisdom, lower levels of good cholesterol may not actually increase a person's risk of cardiovascular disease (CVD). Many studies have shown that people with low levels of high-density lipoprotein (HDL), often called good cholesterol, are more likely to have a cardiovascular event, such as heart attack, unstable angina, or stroke. Yet a new study suggests that it [may not actually be the low levels of HDL](#) [1] that are causing the higher risk.

In a study published in the *Journal of Clinical Endocrinology and Metabolism*, Danish researchers analyzing data from nearly 70,000 people did in fact confirm an inverse relationship between HDL levels and CVD risk. But when researchers looked at those participants who had a mutation of a gene called LCAT, which lowers HDL levels and is present in around 4 percent of the population, they found that these people had no increased heart attack risk despite their lower levels of HDL.

This finding suggests that it is not the low HDL itself that raises heart attack risk, but other factors that correlate with low HDL. So just because low HDL is associated with cardiovascular problems, as lead author Dr. Ruth Frikke-Schmidt remarks, Association itself doesn't mean causality. People with low levels of HDL also tend to have other risk factors for heart disease, such as high blood pressure, obesity, diabetes, and high levels of LDL, or bad cholesterol.

As ACSH's Dr. Gilbert Ross notes, This finding, if confirmed, may well have important implications for drug development, considering that there are currently drugs being tested that are aimed at raising HDL levels. If HDL is not causal, then drugs that raise HDL will not be likely to reduce CVD risk, he says. "It may be more beneficial to focus on reducing other proven risk factors for CVD instead, such as quitting smoking and losing excess weight.

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