

Cardiac Patients at Risk with “Desirable” Total Cholesterol, But Low HDLs (When Too Little Good is Bad)

BY JAN EHRMAN

Heat disease patients with desirable levels of total cholesterol, but insufficient amounts of “good” blood fats, known as HDL (high density lipoprotein) cholesterol, are at a dangerously elevated risk for future heart attacks and other cardiovascular events, according to a National Heart, Lung, and Blood Institute-supported study.

High blood cholesterol is a primary risk factor for atherosclerosis and coronary artery disease (CAD), this country’s leading killer. Well over 7 million people in the U.S. are afflicted with CAD. Excessive blood cholesterol has been tied to an unhealthy diet, smoking, hypertension, and perhaps, to a lesser degree, a sedentary lifestyle. Genetics is also often a contributing factor.

When measured, blood fats can be isolated into several distinct components including total cholesterol, HDL or high density lipoproteins, and LDL, low density lipoproteins. High amounts of HDL cholesterol are considered protective, since HDL removes excess cholesterol from tissues and transports it to the liver where it is ultimately excreted in bile. If HDL is low and LDL is high, cholesterol accumulates in the bloodstream and body tissues, where it can clog the coronary arteries and restrict blood flow. Angina and/or damage to the heart muscle as occurs during myocardial infarction may result, especially during periods of exertion when more oxygen-rich blood is needed by the heart.

Dr. Michael Miller and his colleagues from The Johns Hopkins Medical Institutions and the University of Maryland Medical Systems, both in Baltimore, and the Mary Imogene Bassett Research Institute in Cooperstown, NY, conducted a follow-up study in which they evaluated 107 middle-age adults who were diagnosed with CAD in the late 1970s to determine what factors predicted new cardiovascular events over a 13-year period.

All patients, 83 men and 24 women with an average age in the mid-50s, demonstrated desirable levels of total serum cholesterol, that is cholesterol less than 200 mg/dL (milligrams per deciliter of blood). Some, however, had low HDL concentrations while others had greater amounts.

The investigators’ objective was to determine if a low HDL level was an independent risk factor for future cardiovascular events in the heart patients, despite the presence of acceptable amounts of total cholesterol. What they discovered has profound clinical implications.

“A low level of HDL proved to be a strong predictor of recurrent cardiac events for this group,” said Miller. During the 13 years the patients were followed, he pointed out, 75 percent of those with low HDL cholesterol (less than 35 mg/dL) died from a heart attack or experienced a second myocardial infarct or

A complete lipid analysis should be obtained in all heart disease patients, regardless of total serum cholesterol, in order to screen for low HDL.