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Skin Test May ID Heart Attack, Stroke Risk (from WebMD)

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By Peggy Peck

For people who are needle-shy, a new skin test may provide needed information about cholesterol ([search](#)) levels. The test can identify people at risk for stroke and heart attacks but who have no symptoms.

James H. Stein, who studied the skin test, tells WebMD that it is not intended to replace the blood cholesterol test, "but it is a way to bring heart disease risk assessment back into the doctor's office."

He says when doctors suspect patients may be at risk for **atherosclerosis** ([search](#)), "they are sent out for more studies and further risk assessment." Atherosclerosis is narrowed and hardened blood vessels caused by the buildup of cholesterol-rich plaque in vessel walls. When atherosclerotic plaque dislodges it blocks blood flow and results in heart attacks and strokes.

Within minutes the skin test will provide information about the patient's risk for atherosclerosis. The doctor can then sit with the patient and discuss strategies to reduce cholesterol, he says.

The results of studies on the skin test, called **PREVU** ([search](#)) marketed by McNeil Consumer Health Care, were presented Monday at the American College of Cardiology 2005 Scientific Session.

Traditional blood cholesterol tests measure total cholesterol: "bad" LDL cholesterol, 'good' HDL cholesterol, and triglycerides. The National Cholesterol Education Program recommends having a total cholesterol level below 200.

"This [skin] test doesn't have a number that correlates to the blood levels of cholesterol," says Stein. Instead it measures the total cholesterol, called sterol, found in skin cells.

Quick Results Bring Fast Advice

The test uses a rectangular foam pad -- smaller than a [credit card](#) -- that is placed on the palm of the hand. The pad has three wells into which liquid is added. "When one of the wells changes color to indicate sterol level," he says,

an electronic meter or wand passed over the pad "reads" the color change as a specific sterol level.

He says the test is approved by the FDA for sale in the U.S. and is also sold in Canada and Europe. The cost to the patient, he says, is about \$25 to \$30.

Stein compared the cholesterol skin test results with measures of blood vessel wall thickness in the carotid artery. The thickness of the wall of this blood vessel is used to measure atherosclerosis.

Eighty-one patients, with an average age of 56, underwent both the skin test and ultrasound screening.

The study showed that those with the highest skin cholesterol had increased carotid artery thickness. This was seen even after taking into account other risk factors that contribute to atherosclerosis. Risk factors include age, sex, glucose, systolic blood pressure (upper number of the blood pressure reading), blood cholesterol, and whether a participant used cholesterol-lowering medication.

"We found that patients with the highest total skin cholesterol levels were likely to have ultrasound evidence of atherosclerosis," he says.

Mayo Clinic Florida cardiologist Gerald Fletcher, MD, tells WebMD that the new test is likely to appeal to a number of patients who would like fast answers about their risk of heart attack and stroke.

Fletcher, who wasn't involved in the study, says "anything that gets the patient and physician talking is good. I think this may help that discussion." And once the conversation has started, it should address well-known risk factors.