



## **Skin Test Spots Heart Risks in Healthy People** **No blood sample required with noninvasive cholesterol test, study shows**

**By Ed Edelson**  
*HealthDay Reporter*

THURSDAY, April 17 (HealthDay News) -- A cholesterol test that requires no more than a small sample of skin cells scraped off the palm of the hand can measure the risk of heart disease in healthy people, researchers report.

The test looks at levels of skin sterol, a molecular relative of blood cholesterol.

In a test on 9,055 people, skin sterol readings correlated closely with levels of good HDL cholesterol and of C-reactive protein, a marker of inflammation that is a risk factor for cardiovascular disease. Dr. Dennis L. Sprecher was expected to report on the findings Thursday at the American Heart Association Conference on Arteriosclerosis, Thrombosis and Vascular Biology in Atlanta.

The test described at the meeting is a new version of an existing skin sterol test now being used in Europe and in Canada and on a limited basis in the United States, said Michael Eveleigh, executive vice president of clinical and regulatory affairs with PreMD Inc., a Canadian company that markets the older test and is developing the newer one.

"What happens with this test is that a little plastic device is applied to the surface of the palm of the hand to peel off a layer of dead skin cells," Eveleigh said. "The sample is sent to a laboratory, which measures the cholesterol in those cells. It turns out that cholesterol in the skin is associated with the risk of cardiovascular disease."

In 2005, Dr. James H. Stein, of the University of Wisconsin, reported a study in which cholesterol readings of the older test correlated with ultrasound measurements of thickening and narrowing of arterial walls.

Stein said through a university spokesman that he was not free to comment on the test, because he is providing information to the U.S. Food and Drug Administration on its possible wider use.

Similar ultrasound measurements have not been done with the newer test, Eveleigh said. "We have just started to generate clinical data," he said.

The older test provided on-the-spot cholesterol readings, while the new one requires samples to be sent to a laboratory for analysis.

"A test like this is useful in a setting where you want to test cholesterol without taking a blood sample, as when people are applying for life insurance," Eveleigh said. The participants in the study were being screened for life insurance coverage.

A skin cholesterol test can work because, "what matters is not how much cholesterol is in the blood but how much cholesterol accumulates in the walls of blood vessels," Eveleigh said. "When cholesterol accumulates in blood vessel walls, it accumulates in tissues in general, and, in particular, in the skin,"

he explained.

One advantage of the skin test is that "you don't have to fast," Evelegh said. "It makes no difference what you ate this morning. That has no effect on the test results." Conventional cholesterol tests do require prior fasting.

Sprecher began working on skin cholesterol testing when he was with the Cleveland Clinic. He continued the work after moving to the University of Pennsylvania. He now is with the GlaxoSmithKline.

### **More information**

Standard cholesterol testing is described by the [Mayo Clinic](#).

SOURCES: Michael Evelegh, Ph.D., executive vice president, clinical and regulatory affairs, PreMD Inc., Hamilton, Ontario, Canada; April 17, 2008, presentation, American Heart Association Conference on Arteriosclerosis, Thrombosis and Vascular Biology, Atlanta

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