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What is ArterioVision CIMT?

The Desert Sun

A carotid intima-media thickness (CIMT) test can be used to measure and monitor atherosclerosis, the buildup of fats in and on artery walls.

Cardiologists often will refer to this buildup as plaque. It can restrict blood flow and eventually burst.

Atherosclerosis is a preventable and treatable condition. It's an early warning of risk for heart disease or stroke.

Doctors say the ArterioVision CIMT can be a good diagnostic tool for people with a family history of heart disease or stroke or those who are overweight, use tobacco, have high LDL-C "bad" cholesterol, have low HDL-C "good" cholesterol or elevated triglycerides.

Dr. Barry Hackshaw of the Desert Cardiology Center at Eisenhower Medical Center in Rancho Mirage said it is particularly effective with middle-aged people with those cardiac risk factors.

"If a young healthy person who thinks that they are at risk for heart disease wants to get additional information, this is a great way to do it," he said.

SOURCE: The American Heart Association, Mayo Clinic, Medical Technologies International, Inc.

How is the test different?

Despite having a massive heart attack that destroyed 48 percent of his heart muscle, Gary Thompson says tests continue to show that his health is fine.

His results from ArterioVision CIMT tests show that his plaque has been reduced over time with medication and continued diet and exercise.

Tests that measure function, such as echocardiograms, can miss early signs of heart disease in people who don't fit within the average results range most patients fall under.

"There have been astronauts who've had evidence of heart disease that was going untreated," Thompson said. "Because they're so fit, it doesn't show up."

It's important to note that the test does not find blockage, said Dr. Barry Hackshaw of the Desert Cardiology Center at Eisenhower Medical Center.

While the test received FDA clearance in 2005, its critics say more testing is needed to prove the clinical value of ArterioVision and that a broader application won't be realized until Medicare and private insurance companies offer reimbursement for the test.

Headed for the International Space Station

In 1966, a special image processing unit was created within NASA's Jet Propulsion Laboratory to make sense of images sent from space.

Software invented to process pictures from missions, including the Voyagers and Mars

Reconnaissance Orbiter, formed the foundation for the software used in the ArterioVision CIMT test.

And, like a shuttle orbiting Earth, NASA's technology is coming full circle.

Dr. James D. Polk, chief flight surgeon for NASA, met with Gary Thompson, chairman and CEO of Medical Technologies International, Inc., at a conference in February at Johnson Space Center.

After a few meetings, Polk decided to install ArterioVision on the International Space Station to better monitor astronauts' health during missions.

Why the carotid artery?

ArterioVision CIMT measures a specific segment along the carotid artery, the spot on the neck where medical personnel often take a patient's pulse. Why there?

"The important thing about the carotid artery is that it's close to the surface, which is important in imaging," said Dr. Howard N. Hodis of the Keck School of Medicine at the University of Southern California in Los Angeles.

Each artery in the body has different implications. The carotid tends to reflect more acutely what's going on in the heart, plus it has predictive ability, Hodis said.

Starting this month, The Desert Sun will be telling in-depth profiles of people from all aspects of life in the Coachella Valley. If you have a candidate whose story or accomplishments should be shared with the desert, contact James Meier, senior editor/news, at [james.meier@thedesert sun.com](mailto:james.meier@thedesertsun.com). Or, you can call him at (760) 778-4623.
