

April 15, 2006

## Hidden Heart Dangers CRP Test

### ***Could a Simple, Inexpensive Test Save Your Life from heart attacks?***

Are you one of the millions of people walking around with normal cholesterol levels — thinking you're safe from a heart attack? Well, you may be in for a big shock.

Despite the blitz of diets aimed at heart health and advances in medical research, heart disease remains America's No. 1 killer. This year 1.2 million people will have heart attacks, and about 500,000 of them will die — many without ever knowing they had any heart troubles.

#### **Danger Lies in Hidden Inflammation**

"Half the people who have heart disease find out they have a heart problem by dropping dead. That's the first symptom they have," said Dr. Richard M. Fleming, a nuclear cardiologist and founder of the Fleming Heart and Health Institute in Omaha, Neb.

Fleming routinely uses a simple blood test that scans his patients' blood for signs of inflammation in coronary arteries that may lead to heart attacks. The test can raise the red flag early in heart disease — while you still have time to prevent serious damage.

It's called a CRP test and it's simple and cheap. It measures C-reactive protein, a protein our bodies make in response to inflammation of any kind. One type of CRP test can detect inflammation in coronary arteries.

Overall, having a CRP level reading of 3 or more puts you at higher risk for heart disease. A level of 1 to 3 puts you at moderate risk. If you've got a CRP reading under 1, your risk is low. **In fact, people with a CRP less than 0.5 almost never have heart attacks.**

Regina Allen knows now how important the CRP test can be for heart health.

Allen was in her mid-30s when she began to feel constantly tired and sometimes had chest pain. She visited doctors, but heart disease was ruled out after her EKG tests and cholesterol tests came back normal. Despite the clean bill of health, Allen's family still felt something was not right.

#### **Test Can Identify Damage, Diet Can Help Reduce It**

Lucky for Allen, her next stop was Fleming's institute. When Regina's test showed a high CRP level, Fleming followed up with a high-tech nuclear stress test to get a better picture of her heart. What he saw was alarming.

"We clearly had information that there was inflammation going on and we needed to treat it," he said.

Allen said, "I wish I would have known that in my 30s, then maybe I wouldn't have had the damage that I have now."

CRP was discovered to be a key factor in heart disease in the lab of Dr. Paul Ridker, a cardiologist at Boston's Brigham & Women's Hospital. He was searching for something in our blood that could predict the risk for a heart attack — even when cholesterol was normal. Ridker and his research team realized they had hit a home run back in 1996 when he looked at results of his first big study on CRP.

"It was an extraordinary revelation," Ridker said. "We understood in a matter of minutes that we had a better way of predicting heart attack risk."

Ridker says **inflammation is the trigger that sets off most heart attacks**. That's why having a high CRP, even when your cholesterol is low, can be deadly.

"We've been telling patients with low cholesterol for years they're not at risk. That's just not the case," he said.

### **Some Doctors Resistant to New Research**

To make matters worse, not enough doctors are ordering CRP tests, says Dr. Eric Topol, a world-renowned cardiologist at the Cleveland Clinic.

"The patients are going in saying, 'Doctor, shouldn't I get a CRP? I've read about this blood test.' ... It's really disheartening. The medical community is like a bunch of really old ladies. They're so difficult for them to transform and accept new knowledge," Topol said.

Part of the resistance to new tests for inflammation comes from our longtime focus on fats that block the center of arteries and can be easily detected by angiograms or heart scans. But now we know that only 15 percent of heart attacks are caused by these blockages. And that the majority of heart attacks — up to 85 percent — are caused by a combination of inflammation and fats that these tests can't detect.

Cardiologists now believe that most of the time the cause of a heart attack is a collection of fatty material that grows hidden in the wall of the artery rather than in the center opening of the artery. They call these areas vulnerable or unstable plaques because they have a lot of inflammation, and that makes them more likely to rupture. And when they rupture — like a boil that suddenly bursts — they trigger the sudden formation of a large blood clot that quickly blocks the flow of blood and leads to a heart attack.

Dr. Peter Libby, chief of cardiovascular medicine at Brigham & Women's Hospital, helped pioneer the concept that inflammation hidden in artery walls is the major culprit in killer heart attacks.

This sort of inflammation wouldn't be detected by tests that look at blood flow — or by stress tests.

## Could Most Heart Attacks Be Avoided?

Fleming, for one, needs no convincing that **inflammation is fueling killer heart attacks**. He also believes that a diet high in calories and saturated fats makes it easy for arteries to become inflamed. The best way to put out that fire, he says, is with a healthy lifestyle. He discusses the threats posed by inflammation and diet options to improve heart health in his latest book, *Stop Inflammation Now*.

"Physicians like myself only have so many tricks we can pull out of the hat to treat symptoms," Fleming said. "Until we treat the underlying cause, we're not gonna correct these problems."

Allen's cholesterol was already normal so cholesterol-lowering drugs were not the answer for her. Instead, she was sent home with a low-fat diet, designed to help her lose weight and eliminate foods that trigger an inflammatory reaction.

Phase I of Fleming's diet recommendation is tough. Allen was restricted to fruits and vegetables to quickly lower inflammation. Once that's under control, she would be allowed to add protein, grains, dairy and healthy fats.

Three weeks into the diet, Fleming did another CRP test and heart scan on Allen. Amazingly, she had already begun turning the tide on her heart disease.

Her CRP level had dropped by half, and Allen said she was already feeling better.

For many people, diet and other lifestyle changes will not be enough. Fortunately, the so-called statin drugs, like Lipitor, have recently been shown to both dramatically lower cholesterol and reduce inflammation.

**The bottom line: Inflammation is a major player in heart disease. And doctors who use it say CRP testing is currently the best way to find it — which may help make most heart attacks a thing of the past.**