

Cardiologists Discover New Enzyme that Predicts Risk of Heart Attack

For many people the first sign of heart disease is a heart attack ... And one out of three people who have a heart attack die. The problem? Current blood tests only tell doctors if a heart attack has already happened. Now a new blood test could let doctors know who needs aggressive heart help, before a heart attack happens.

Fifty-four year old David Lesesky exercises every day with his young family. He has a lot to live for, but not too long ago, his family nearly lost him. "I thought I was running out of wind," he says. "I couldn't catch my breath."

Lesesky was having a heart attack He knows he is lucky to be alive. He says, "I worked out. I tried to do all the right things. So I thought, if anything, I'm in great shape." This former triathlete's doctors thought so, too. Heart and stress tests didn't pick up a thing, but a dangerous blockage was forming.

MPO, or myeloperoxidase is produced by white blood cells, the body's defense system. When there's a dangerous blockage, MPO levels in the blood increase.

Cardiologist Stanley Hazen, of Cleveland Clinic, says, "We were able to show that this enzyme called MPO ... that elevated levels of it are seen in patients who are at risk not only for having a heart attack when they present, but also a heart attack or needing bypass surgery or needing angioplasty or dying in the next one-month to six-month period."

A simple blood test -- when performed on patients with the highest MPO levels -- predicted a heart attack, the need for invasive intervention, or cardiac death within the next six months with 95-percent accuracy.

The cardiac MPO test was recently approved by the FDA. It's not widely available yet, but it should start appearing in hospitals across the country soon.

HOW IT WORKS: Enzymes are proteins in the body that control metabolism: they convert nutrients into energy and new cell tissue. Enzymes can speed up chemical processes that would otherwise take longer. They are also very specific: each type of enzyme only reacts with one specific compound. High levels of an enzyme called myeloperoxidase (MPO) in the bloodstream can signal a person's near-term risk for heaving a heart attack within months. (Source: ScienceDaily.com)

Published on : Thu, 23 Apr 2009