

Detecting Cardiac Risk

There are many indications of cardiac risk that are familiar to us all. Blood pressure, if high, increases risk of heart attack. So does a high cholesterol level. Obesity, smoking, diabetes and a family history of heart disease are all associated with increased risk. In addition to these markers, advances in technology are providing a rapidly proliferating array of options for detecting cardiac risk. Which tests should you have? Let's give the matter some consideration.

First, the goal of any screening test is to detect a condition, or risk for a condition, that you don't already know about. If you have known risk factors for heart disease, such as smoking, poor diet, or physical inactivity, you don't need any test to know that these behaviors should be changed. If you have any or all of these risky behaviors and are genetically predisposed to heart disease, your personal risk may be very high. If you are genetically resistant, you may overcome that resistance with enough "bad habits." Anyone with a heart is at some risk of heart disease, and behavior/lifestyle makes a big difference for everyone.

The value of testing doesn't reside merely in its ability to reveal hidden risk factors. The real value lies in the use of that knowledge. If a test provides information you can and will use to lower your risk of

an adverse health outcome, it is very likely a worthwhile test. If it does not serve that purpose, then its value is questionable, no matter how high-tech and alluring it may seem. Some of the newer tests for heart disease are blood measures, similar to cholesterol testing. More and more, the various components of cholesterol, so-called lipoproteins such as LDL and HDL, are considered valuable. I share this view, and believe cholesterol testing is of limited value if it does not provide at least an HDL level along with total cholesterol. Other blood measures are intriguing, but not yet of proven value. A measure called C-reactive protein is associated with heart disease risk, but it's not clear how to "treat" a high level, other than by doing things already known to lower risk. So, the value of this test is not yet obvious. The list of blood measures linked to heart disease risk is too long to complete here. Here's my generic advice: before having any blood test, ask your doctor (and/or yourself) whether, and how, you can use the information it provides. If you're not clear on the answer, you may want to wait. The same applies to the many new technologies available. CAT scans of the coronary arteries are being advertised widely. These tests may be very useful, but only under the right circumstances. In someone obviously at high risk, or clearly at low risk of heart disease, this test is unlikely to provide helpful information. For those in-between, it may be more valuable. That said, we tend



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to promote new tests BEFORE, rather than after, we show they can actually be useful; you, the customer, should therefore think twice, and ask questions. Above all, don't assume that you should always have a test just because you can. Find out how it can help you, and if convinced, then proceed. Other cardiac tests now available include various stress tests, MRI, PET scans, and studies of vascular (blood vessel) responses. Some of these are still used for research only, but they may soon be advertised just as the CAT scans are. The more options you have, the more you need to know that medical technology is only as good as the decision-making that guides its use.

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Preventive Medicine Column

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