

## Routine heart disease screening not recommended

*US Preventive Services Task Force. Screening for coronary heart disease: Recommendation statement. Ann Intern Med 2004;140:569-572.*

### ■ CLINICAL QUESTION

Should high-tech means of screening be used to identify heart disease in asymptomatic individuals?

### ■ BOTTOM LINE

The United States Preventive Services Task Force recommends against routine screening of adults at low risk of heart disease using electrocardiography (ECG), exercise treadmill testing, or computerized tomography (CT) because the harms of screening (additional testing of patients with a false-positive result, labeling of patients with a disease) outweigh the benefits. There is insufficient evidence to support this type of testing even in patients at increased risk. (LOE=2b).

### ■ STUDY DESIGN

Practice guideline

### ■ SETTING

Various (guideline)

### ■ SYNOPSIS

Can screening for disease be harmful, even if the test itself is benign? There are actually many risks associated with screening for disease, which is a hard concept for many patients to grasp, since, after all, if even only one person is found to have the disease, isn't it "worth it"?

The problem with screening occurs not with the people who truly have the disease (of course) but with patients who have a positive test result even though they don't really have the disease (ie, false-positive results). These patients frequently undergo further testing to rule out the disease, may receive unnecessary treatment, and may be labeled as having a dis-

ease that they don't have, with all its attendant psychological and financial (ie, life insurance) issues.

There is also a risk of inappropriate reassurance of patients who have the disease but it's not detected by the screening test (ie, false-negative results). So is the case with screening for heart disease. The screening tests often used—a baseline ECG, treadmill testing, or CT—are fairly poor at distinguishing patients who have heart disease from those who don't. In asymptomatic people, ECG changes are present in less than 10% of patients with heart disease. The positive predictive value of exercise stress testing ranges from 6% to 48%, meaning that up to 94% of patients with a positive stress test are not at risk for a cardiovascular event. There are no data evaluating CT testing in asymptomatic patients.

From this information the Task Force concluded that the risks outweigh the benefits in asymptomatic patients. The tests do better in patients at high risk, but there is still significant risk of false-positive results. The Task Force concluded there is insufficient data to support the use of screening in these patients. They suggest relying on the various clinical prediction rules available to estimate heart disease risk, and base management decisions on the results from these rules.

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### DRUG BRAND NAMES

Albuterol • Airt, Proventil, Ventolin, Volmax  
 Ipratropium • Apo-Ipravent, Atrovent, Kendral-Ipratropium  
 Racemic epinephrine • micoNephrine, Vaponefrin  
 Ribavirin • Copegus, Rebetol, Virazole

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