Screening for Peripheral Artery Disease and Cardiovascular Disease Risk Assessment with Ankle Brachial Index in Adults

The U.S. Preventive Services Task Force (Task Force) has issued a final recommendation statement on Screening for Peripheral Artery Disease (PAD) and Cardiovascular Disease (CVD) Risk Assessment with Ankle Brachial Index (ABI) in Adults.

This final recommendation statement applies to adults who do not have signs or symptoms of PAD and who have not been diagnosed with PAD, CVD, severe chronic kidney disease, or diabetes.

The Task Force reviewed the use of ABI to screen for PAD and to predict a person’s risk of heart attacks and stroke. The final recommendation statement summarizes what the Task Force learned about the potential benefits and harms of this screening: There is not enough evidence to judge the benefits and harms of using ABI for this purpose.

This fact sheet explains the recommendation and what it might mean for you.

What is peripheral artery disease?

PAD is a disease in which fatty deposits called plaque build up in the arteries, especially those in the legs.

Over time, the plaque can block the flow of blood to the legs often leading to pain with walking.

What is cardiovascular disease?

Cardiovascular disease affects the heart and blood vessels. It is caused by a build up of plaque in arteries that supply the heart, brain, and other parts of the body. When the build up is in the legs it is called PAD. Heart attacks and strokes are other common types of CVD.

Facts About CVD and PAD

Cardiovascular disease is the leading killer of both men and women in the United States. We know that addressing the underlying risk factors for heart disease, such as not smoking; maintaining a healthy weight; and keeping blood cholesterol, blood pressure, and diabetes under control, can help prevent heart attacks and strokes.

About 7 million Americans ages 40 and older have PAD, a form of CVD. It is more common in men than in women, and more common in African Americans than in whites. In addition to getting older, the main risk factors for PAD are the same as those for heart attacks and strokes—smoking, diabetes, high blood pressure, high cholesterol, obesity, and not being physically active. People with PAD have a higher risk of having CVD and having a heart attack or stroke.

Symptoms of PAD include pain, cramping, or numbness in the legs during walking or other movement. The pain usually goes away during rest. Other symptoms can include sores or wounds on the legs or feet that heal slowly or not at all. However, about half the people with PAD do not have typical signs or symptoms, so they do not realize that they have the disease.

Screening for PAD and CVD Risk

Health care professionals use ABI to screen for and identify PAD. ABI is a test that compares blood pressure at the ankle with blood pressure in the arm. A low ABI score means that a person has PAD.
Potential Benefits and Harms

The Task Force reviewed studies that looked at whether screening for PAD in people with no signs or symptoms can help identify PAD and predict risk for heart attacks and strokes. It also looked at whether treating PAD based on the results of screening can improve a person’s future overall health.

The Task Force found no evidence that screening for and treating PAD in people with no symptoms leads to better health in the future. The Task Force also did not find any evidence that combining an ABI score with the traditional measure of determining heart disease risk is better than the traditional measure alone or that it improves future health.

The Task Force found no studies that directly examined the harms of using the ABI to screen for PAD. A potential harm is that ABI may sometimes show that a person has PAD, when in fact the person does not have it (a false-positive result). Other possible harms include anxiety and exposure to chemicals that may be used in additional tests to confirm diagnosis.

The Final Recommendation Statement on Screening for Peripheral Artery Disease: What Does It Mean?

Here is the Task Force’s final statement on screening for PAD with ABI. Recommendation statements have letter grades. The grades are based on the quality and strength of the evidence about the potential benefits and harms of screening for this purpose. They also are based on the size of the potential benefits and harms. Task Force recommendation grades are explained in the box at the end of this fact sheet.

When there is not enough evidence to judge potential benefits and harms, the Task Force does not make a recommendation for or against—it issues an I statement. The Notes explain key ideas.

Visit the Task Force Web site to read the full final recommendation statement. The statement explains the evidence the Task Force reviewed and how it decided on the grade. An evidence report provides more detail about the studies the Task Force reviewed.

The Task Force concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for peripheral artery disease (PAD) and cardiovascular disease (CVD) risk assessment with ankle brachial index (ABI) in adults. I Statement

Notes

1 evidence is insufficient

The Task Force did not find enough information to judge the benefits and harms of ABI to screen for PAD and determine risk for future CVD.

assess the balance...

The Task Force was not able to determine whether any potential benefits would outweigh any potential harms.

risk assessment

Determine whether a person is at increased risk for CVD.

adults

Those ages 18 and older.
Should You Be Screened for PAD and CVD Risk with ABI?

Getting the best health care means making smart decisions about what screening tests, counseling services, and preventive medicines to get and when to get them. Many people don't get the tests or counseling they need. Others get tests or counseling they don’t need or that may be harmful to them.

Task Force recommendations can help you learn about screening tests, counseling services, and preventive medicines. These services can keep you healthy and prevent disease. The Task Force recommendations do not cover diagnosis (tests to find out why you are sick) or treatment of disease. Task Force recommendations also apply to some groups of people, but not others. For example, this recommendation does not apply to people who have symptoms of PAD or who have been diagnosed with PAD, CVD, severe chronic kidney disease, or diabetes.

Deciding Whether to Get Screened for PAD with ABI

When considering whether to get screened, think about your own lifestyle, personal beliefs, and preferences for health care. Talk with your health care professional about your risk factors for PAD, CVD, and diabetes. Consider scientific recommendations, like this one from the Task Force. Use this information to become fully informed and to decide whether screening for PAD is right for you.

At the same time, take action to reduce your risk for heart disease and strokes. Eat a healthy diet and maintain a healthy weight. Don’t smoke. Be physically active. Keep your blood pressure, blood cholesterol, and blood sugar under control.

What is the U.S. Preventive Services Task Force?

The Task Force is an independent, volunteer group of national experts in prevention and evidence-based medicine. The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medicines. The recommendations apply to people with no signs or symptoms of the disease being discussed.

To develop a recommendation statement, Task Force members consider the best available science and research on a topic. For each topic, the Task Force posts draft documents for public comment, including a draft recommendation statement. All comments are reviewed and considered in developing the final recommendation statement. To learn more, visit the Task Force Web site.

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<th>USPSTF Recommendation Grades</th>
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<td>A</td>
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<td>B</td>
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<td>Recommendation depends on the patient’s situation.</td>
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<tr>
<td>D</td>
<td>Not recommended.</td>
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<tr>
<td>I statement</td>
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