

Screening for Vascular Disease

Your patients rely on you for accurate, up-to-date preventive health information. This fact sheet for clinicians provides information about screening for peripheral arterial disease and carotid artery stenosis.



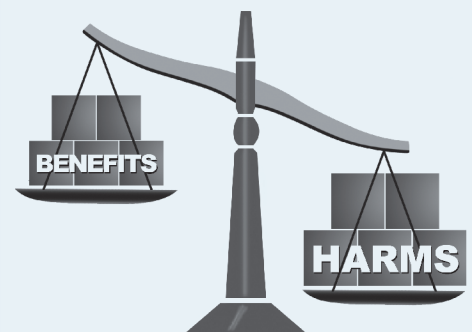
The US Preventive Services Task Force recommends AGAINST routine screening for peripheral arterial disease and carotid artery stenosis.

In general, screening tests are routinely recommended when:

- **Early treatment of the disease is more effective than later treatment.** This means that good studies have shown that early treatment, compared with later treatment, helps patients to live longer, live healthier, or have a better quality of life.
- **Diagnostic workup and/or early treatment of the disease doesn't have serious harms that outweigh the benefits of screening.**
- **The screening test is accurate, available, and acceptable to patients.**

Taken altogether, the benefits of a screening test must outweigh the harms in order for a screening test to be routinely recommended.

Routine screening for peripheral arterial disease and carotid artery stenosis is not recommended because the evidence suggests that the harms of screening for these conditions outweigh the benefits.



What is the rationale for NOT routinely screening for peripheral arterial disease (PAD)?

Asymptomatic PAD is common, and the screening test for PAD (doppler-recorded ankle-brachial index) is non-invasive and accurate. However, treatment of asymptomatic PAD, beyond standard cardiovascular risk assessment and treatment, does not improve major health outcomes. Smoking cessation and physical activity do improve maximal walking distance in men with early PAD, but these treatments should be recommended regardless of a PAD screening test result. Furthermore, screening for asymptomatic PAD in the general population leads to a significant number of false-positive results and unnecessary work-ups that may result in harms including labeling and significant adverse events associated with diagnostic evaluation (catheterization and angiography) and treatment (anti-thrombotics, angioplasty, bypass surgery). Therefore, for asymptomatic adults, the harms of routine screening for PAD exceed the benefits.

Source: *Screening for Peripheral Arterial Disease, Topic Page, August 2005. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/clinic/uspstf/uspstf/pad.htm>*

What is the rationale for NOT routinely screening for carotid artery stenosis (CAS)?

A relatively small proportion of disabling strokes that occur without warning are caused by CAS. The most common screening test for CAS is duplex ultrasonography, which has only moderate accuracy resulting in significant numbers of false positive results. Under ideal clinical trial conditions (highly selected patients, surgeons, and hospitals), carotid endarterectomy for asymptomatic, severe CAS reduces the 5-year absolute incidence of all strokes or perioperative death by about 5%. Significant harms are associated with CAS screening, including harms associated with the angiographic work-up and complications from surgical treatment, including a 3% risk of stroke or death. Therefore, for asymptomatic adults, the harms of routine screening for CAS exceed the benefits.

Source: *Screening for Carotid Artery Stenosis, Topic Page, December 2007. U.S. Preventive Services Task Force. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/clinic/uspstf/uspstf/cas.htm>*

How should I talk with patients about these tests?

Tests for PAD and CAS should not be routinely offered to asymptomatic adults. However, patients may ask about getting screened with these tests as a result of community health fairs, direct-to-consumer advertising, or health experiences of a friend or family member. Consider the patient's request respectfully. Discuss the patient's concerns and provide more information if needed.

Does the patient have signs or symptoms of PAD or CAS?

- If so, consider a diagnostic evaluation. Remember, screening tests are intended for asymptomatic individuals.

Does the patient have extenuating circumstances that would make him or her much more likely to benefit from screening?

- If so, consider screening for this patient but only after a discussion of the risks and benefits.

Does the patient have health behaviors or other conditions that can be modified to reduce his or her risk?

- If so, discuss the contribution of current behaviors to the patient's overall risk.
 - Offer help to quit smoking.
 - Offer help to increase physical activity.
 - Offer help to maintain a healthy weight.
 - Regularly screen for hypertension and dyslipidemia.
 - Control diabetes, hypertension, and dyslipidemia, if present.
- Work with patients to increase their motivation to change, help them set goals, and learn to problem-solve as needed.



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