The American College of Cardiology Foundation (ACCF) and American Heart Association (AHA) have updated their 2005 guideline on the management of peripheral artery disease (PAD) based on new data, with particular focus on lower extremity and abdominal aortic disease. Recommendations for renal and mesenteric disease remain the same.

### Diagnosis

**ANKLE-BRACHIAL INDEX, TOE-BRACHIAL INDEX, AND SEGMENTAL PRESSURE MEASUREMENT**

In persons suspected of having lower extremity PAD (based on the presence of at least one of the following: exertional leg symptoms; nonhealing wounds; age 65 years and older; or age 50 years and older with a history of smoking or diabetes mellitus), resting ankle-brachial index (ABI) measurement should be used to confirm the diagnosis. Diagnosis of lower extremity PAD should also be confirmed with toe-brachial index measurement in persons with noncompressible vessels in whom ABI measurement is not reliable (e.g., those with long-standing diabetes mellitus, older persons), or with segmental pressure measurement when determining the anatomic location is necessary to make treatment decisions. Results of ABI measurement should be consistently reported as follows: normal values defined as 1.00 to 1.40; abnormal values defined as 0.90 or less; and borderline values defined as 0.91 to 0.99. Values greater than 1.40 indicate noncompressible vessels.

### Treatment

**SMOKING CESSATION**

At every office visit, physicians should talk with patients who smoke or who used to smoke about their use of tobacco, and should provide those who continue to smoke help with counseling and with establishing a plan for smoking cessation (e.g., programs, medication). For persons with lower extremity PAD who use any type of tobacco, not only should the recommendation to stop using tobacco products be made, but also behavioral and pharmacologic treatment options, including varenicline (Chantix), bupropion (Zyban), and/or nicotine replacement therapy, should be provided for those without contraindications.

**ANTIPLATELET AND ANTITHROMBOTIC MEDICATIONS**

Treatment with antiplatelet medications is recommended to reduce the risk of myocardial infarction, stroke, and vascular death in symptomatic persons with atherosclerotic lower extremity PAD. This includes patients with intermittent claudication or critical limb ischemia, and a history of lower extremity revascularization or amputation for lower extremity ischemia. Antiplatelet medication can also be useful in asymptomatic persons with an ABI value of 0.90 or less; however, its usefulness in asymptomatic persons with an ABI value of 0.91 to 0.99 (borderline) has not been well established.
Aspirin, at a recommended dosage of 75 to 325 mg per day, is a safe and effective anti-platelet medication in symptomatic persons with atherosclerotic lower extremity PAD, and clopidogrel (Plavix), at a dosage of 75 mg per day, is a safe and effective alternative to aspirin. Combining aspirin with clopidogrel can be considered to reduce the risk of cardiovascular events in persons who have an increased cardiovascular risk, but not an increased bleeding risk.

Adding warfarin (Coumadin) to anti-platelet medications to reduce the risk of adverse cardiovascular ischemic events in persons with atherosclerotic lower extremity PAD provides no benefit and can increase the risk of major bleeding.

**Management of Abdominal Aortic Aneurysm**

Endovascular repair should be performed in persons with infrarenal abdominal aortic aneurysms or common iliac aneurysms who are good candidates for surgery. These patients must be able to comply with having long-term surveillance performed periodically to screen for endoleak, confirm the position of the graft, verify that the excluded aneurysm sac is stable or shrinking, and determine the need for further intervention. If a patient cannot comply with this long-term surveillance, open aneurysm repair is a reasonable alternative. The effectiveness of endovascular repair in persons with infrarenal abdominal aortic aneurysms who are at high surgical or anesthetic risk (i.e., those with coexisting severe cardiac, pulmonary, or renal disease) is unclear.

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**Answers to This Issue’s CME Quiz**

- Q1. B
- Q2. B, D
- Q3. A
- Q4. C, D
- Q5. B
- Q6. A, B, C
- Q7. A, B, C, D

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