

Focus on Peripheral Arterial Disease (PAD)

September is National Vascular Disease Month



Quick Facts

- The German Epidemiologic Trial on Ankle Brachial Index Study Group included 6,880 patients ≥ 65 years of age and demonstrated that 21% of the cohort had either asymptomatic or symptomatic peripheral arterial disease (PAD).^{1,2,3}
- Among high risk groups, PAD afflicts 29% of patients who are 70 years or older, age 50 to 69 years with at least a 10-pack-a-year history of smoking, or age 50 to 69 years with a history of diabetes.⁴
- Up to 50% of all patients with PAD are asymptomatic.¹
- Patients with PAD are at increased risk for cardiovascular morbidity and mortality including myocardial infarction, stroke, thromboembolic events and amputation. Yet these patients are less likely to be diagnosed and treated aggressively than those with heart disease.⁴

Practice guidelines for Management and Prevention of PAD

- Regular physical activity — brisk walking for a minimum of 10 minutes every day and increase duration of exercise regimen as tolerated.⁵
- Low saturated and trans fat diet by increasing the amount of fresh fruits and vegetables eaten. (For each meal, make sure that half the plate is filled with fresh fruit and vegetables).⁶
- Smoking cessation to slow progression.
- Aspirin or clopidogrel if unable to tolerate aspirin.
- Control hypertension, ACE inhibitor recommended for cardiovascular risk reduction.
- Control lipids.
- Claudication medications if needed, cilostazol and pentoxifylline.

Diagnosis of PAD: The Ankle Brachial Index (ABI)

The ABI is the ratio of systolic ankle to systolic brachial blood pressure. The pulse is detected using a Doppler. An ABI of 0.90 or less is consistent with PAD.

Persons with long-standing disease may have noncompressible vessels. Therefore, if the ABI is normal and there is a high index of suspicion for PAD or when the ABI is >1.2, further studies may be required to diagnose PAD.¹

Documentation Tips⁷

- When a provider documents “peripheral arterial disease,” “peripheral vascular disease” or “intermittent claudication” it is coded as **443.9** – Peripheral vascular disease, unspecified.
- Document arteriosclerosis as “arteriosclerosis of” and the site, “arteriosclerotic” or “arteriosclerosis with,” followed by the symptom or complication (e.g., arteriosclerosis of the lower extremities with ulceration), not the symptom or complication alone.
- When documenting ulcers, do **not** document them as “wounds,” “open wounds” or “lesions.”

Coding Highlights⁷

Atherosclerosis (arteriosclerosis)

Of native arteries of extremities:

- 440.20** Unspecified
- 440.21** With intermittent claudication
- 440.22** With rest pain
- 440.23** With ulceration*
- 440.24** With gangrene*
- 440.29** Other

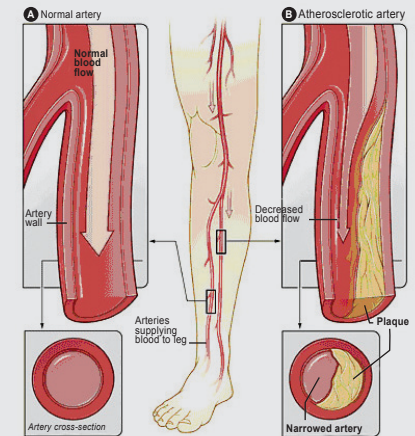
Of bypass graft of extremities:

- 440.30** Of unspecified graft
- 440.31** Of autologous vein bypass graft
- 440.32** Of nonautologous biological bypass graft

*Use additional code for any associated ulceration (**707.10-707.9**)

Risk Factors¹

- Smoking increases risk up to six times.
- Diabetes increases risk 2-4 times.
- Hypertension and hyperlipidemia.
- Elevated inflammatory markers homocysteine and C-reactive protein.
- Age 50 and up with risk factors (i.e., history of smoking or diabetes) and all patients over 65.
- Known atherosclerotic disease.



¹ Diehm C, Allenberg JR, Pittrow D, et al. Mortality and vascular morbidity in older adults with asymptomatic versus symptomatic peripheral artery disease. *Circulation* 2009;120:2053-2061.

² Criqui MH, Fronek A, Barrett-Connor E, et al. The prevalence of peripheral arterial disease in a defined population. *Circulation* 1985;71:510-5.

³ Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society for Vascular Medicine, and Society for Vascular Surgery, Rooke, Thom W., et al. 2011 ACCF/AHA Focused Update of the Guideline for the Management of Patients With Peripheral Artery Disease (Updating the 2005 Guideline): A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol* 2011 0: jacc.2011.08.023. <<http://content.onlinejacc.org/cgi/content/full/jacc.2011.08.023v1>>.

⁴ Hirsch, AT, Criqui, MH, et al. “Peripheral Arterial Disease Detection, Awareness, and Treatment in Primary Care.” *JAMA* 2001;286:1317-1324.

⁵ “Physical Activity for Everyone: Guidelines: Older Adults | DNPAO | CDC.” *Centers for Disease Control and Prevention*. Web. 31 Aug. 2011. <<http://www.cdc.gov/physicalactivity/everyone/guidelines/olderadults.html>>.

⁶ Johnson, Donna B., Sharon Beaudoin, and Lynne Smith, “Increasing Fruit and Vegetable Intake in Homebound Elders: The Seattle Senior Farmers’ Market Nutrition Pilot Program.” *Preventing Chronic Disease, Public Health, Research, Practice and Policy* 1.1 (2004): 1-9. Print.

⁷ World Health Organization, *Professional: ICD-9-CM for Physicians—Volumes 1 & 2*. 2012. Alexandria, VA: Ingenix, 2011, October. Print.