

# PERIPHERAL ARTERY DISEASE (PAD)

## Provider's guide to diagnose and code PAD

Peripheral Artery Disease (ICD-10 code I73.9) is estimated to affect 12 to 20% of Americans age 65 and older with as many as 75% of that group being asymptomatic (Rogers et al, 2011). **Of note**, for the purposes of this clinical flyer the term peripheral vascular disease (PVD) is used synonymously with PAD.

### Who and how to screen for PAD

The updated 2013 American College of Cardiology and American Heart Association guidelines for the management of patients with PAD, recommends screening patients at risk for lower extremity PAD (Anderson et al, 2013).

The guidelines recommend reviewing vascular signs and symptoms (e.g., walking impairment, claudication, ischemic rest pain and/or presence of non-healing wounds) and physical examination (e.g., evaluation of pulses and inspection of lower extremities). The Trans-Atlantic Inter-Society Consensus Document on Management of PAD and U.S. Preventative Task Force on screening for PAD identify similar screening criteria that address patient's age, smoking history, co-morbid conditions and physical exam findings (Moyer, 2013 & Norgren et al, 2007).

The American College of Cardiology and American Heart Association guidelines further recommend obtaining an ankle-brachial index (ABI) if the patient has any of the following findings (Anderson et al., 2013):

- › Exertional leg symptoms
- › Non-healing wounds
- › Age 65 years or older
- › 50 years or older with a history of smoking or diabetes

If patient history or physical exam meets any one of the following criteria, assess if the patient can tolerate and will consent to an ABI procedure or equivalent device.

### Requirements to diagnose PAD

The ABI is a ratio of ankle and brachial systolic blood pressures. The resting ABI can establish the lower extremity PAD diagnosis in patients with symptoms or with significant risk factors (Anderson et al., 2013).

The American Cardiology and American Heart Association 2013 revised guidelines recommend the following interpretation for noncompression values for ABI (Anderson, 2013).

**Table 2: Interpretation of ABI Values**

Value	Interpretation
> 1.30	Non-compressible
1.00 – 1.29	Normal
0.91 – 0.99	Borderline
0.41 – 0.90	Mild to moderate PAD
0.00 – 0.40	Severe PAD

The diagnostic accuracy of the ABI can be hindered under the following conditions: (Ruff, 2003)

- › Patient anxiety and/or discomfort
- › Poor positioning of patient or restless patient
- › Exam performed in a cold room
- › Sphygmomanometer cuff wrong size for limb or improper use

### Education, treatment, and follow up of abnormal findings

Abnormal ABIs are diagnostic of PAD and can be associated with significant clinical findings and urgent diagnoses. When diagnosing PAD the clinician should consider additional testing if ABI indicates non-compressible vessels and additional complaints suggesting more severe/urgent pathology.

If patient is using tobacco/smoking, then educate the patient about the contribution of smoking to the risk of contracting PAD. This should include smoking cessation counseling/ materials. Encourage treatment and control of co-morbid chronic conditions like HTN, DM, hypercholesterolemia, and CAD. Encourage walking for exercise when not contraindicated.

Use of Aspirin or other similar anti-platelet medications may prevent the development of serious complications from PAD and associated atherosclerosis.

### References

- Anderson J, et al (2013). Management of Patients with Peripheral Artery Disease (Compilation of 2005 and 2011 ACCF/AHA Guideline Recommendations). A Report of the American College of Cardiology Foundation / American Heart Association Task Force on Practice Guidelines. *Circulation* 127, 1425-1443
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- Moyer V (2013). Screening for Peripheral Artery Disease and Cardiovascular Disease Risk Assessment with the Ankle-Brachial Index in Adults: U.S. Preventative Service Task Force Recommendation Statement. *Annals of Internal Medicine* 159 (5) 342-349.
- Roger VL, Go AS, Lloyd-Jones DM, et. al. Heart Disease and Stroke Statistics 2011 Update: A Report From the American Heart Association. *Circulation* 2011;123:e18-e209.
- Ruff D (2003) Doppler assessment: calculating an ankle brachial pressure index. *NursingTimes.net* 99(42), 62 <http://www.nursingtimes.net/home/clinicalzones/assessment-skills/doppler-assessment-calculating-an-ankle-brachial-pressure-index/205076.article> Retrieved 12/3/2013

## Coding and Documentation Guidelines

- › Explicitly document findings to support diagnoses of PAD
- › Document a diagnostic statement that is compatible with ICD-10-CM nomenclature
- › Explicitly document treatment plan/follow-up
- › Confirm face-to-face encounter is signed and dated by clinician. Include printed version of clinician's full name and credentials (e.g., MD, DO, NP, PA)
- › If the patient has diabetes mellitus (DM) code combination code to report DM with underlying associated Peripheral angiopathy with additional levels of specificity as:
  - Type 1
  - Type 2
  - Drug-induced
  - With gangrene
  - Without gangrene
- › Atherosclerosis codes provide additional levels of specificity for:
  - Laterality
    - Right
    - Left
    - Bilateral
  - Ulcer site
- › Status of artery and grafting material
  - Native
  - Bypass graft
  - Autologous
  - Non-autologous biological

## 2015 ICD-10-CM PVD Diagnostic Codes

ICD 10 CM Code	ICD 10 CM Description	Definition / Tips
I73.9	Peripheral vascular disease, unspecified	
I73.89	Other specified peripheral vascular diseases	
<b>Diabetic Peripheral Angiopathy</b>		
E08.5-	Diabetes mellitus due to underlying condition w/diabetic peripheral angiopathy	(-) Add 5 <sup>th</sup> character: 1 – without gangrene 2 – with gangrene
E09.5-	Drug or chemical-induced diabetes mellitus w/diabetic peripheral angiopathy	
E10.5-	Type 1 diabetes mellitus w/diabetic peripheral angiopathy	
E11.5-	Type 2 diabetes mellitus w/diabetic peripheral angiopathy	
E13.5-	Other specified diabetes mellitus w/diabetic peripheral angiopathy	
<b>Atherosclerosis of native arteries of the extremities</b>		
I70.20-	Unspecified Atherosclerosis of native arteries of extremities	(-) Add 6 <sup>th</sup> character: 1 – right leg 2 – left leg 3 – bilateral legs 8 – other extremity 9 – unspecified extremity
I70.21-	Atherosclerosis of native arteries of extremities w/intermittent claudication	
I70.22-	Atherosclerosis of native arteries of extremities w/rest pain	
I70.26-	Atherosclerosis of native arteries of extremities w/gangrene	
I70.29-	Other Atherosclerosis of native arteries of extremities	
I70.23-	Atherosclerosis of native arteries of right leg w/ulceration	(-) Add 6 <sup>th</sup> character: 1 – thigh 2 – calf 3 – ankle 4 – heel and mid-foot 5 – other part of foot 8 – other part of lower leg 9 – unspecified site *Use add'l code to identify severity of ulcer (L97.-)
I70.24-	Atherosclerosis of native arteries of left leg w/ulceration	
I70.25	Atherosclerosis of native arteries of other extremities w/ulceration	Use add'l code to identify severity of ulcer (L98.49-)
<b>Atherosclerosis of bypass graft of the extremities</b>		
I70.30-	Unspecified Atherosclerosis of unspec. type of bypass graft(s) of extremities	Add 6 <sup>th</sup> character: 1 – right leg 2 – left leg 3 – bilateral legs 8 – other extremity 9 – unspecified extremity
I70.31-	Atherosclerosis of unspec. type of bypass graft(s) of extremities w/intermittent claudication	
I70.32-	Atherosclerosis of unspec. type of bypass graft(s) of extremities w/rest pain	
I70.33-	Atherosclerosis of unspec. type of bypass graft(s) of right leg w/ulceration	Add 6 <sup>th</sup> character: 1 – thigh 2 – calf 3 – ankle 4 – heel and mid-foot 5 – other part of foot 8 – other part of lower leg 9 – unspecified site Use add'l code to identify severity of ulcer (L97.-)
I70.34-	Atherosclerosis of unspec. type of bypass graft(s) of left leg w/ulceration	
I70.35	Atherosclerosis of unspec. type of bypass graft(s) of other extremity w/ulceration	Use add'l code to identify severity of ulcer (L98.49-)
<b>Atherosclerosis of other types of bypass grafts of the extremities</b>		
I70.4-	Atherosclerosis of autologous vein bypass graft(s) of the extremities	(-) Additional characters: See ICD-10-CM Code handbook for additional levels of specificity when assigning these codes *Note the additional code assignment instructions
I70.5-	Atherosclerosis of non-autologous biological bypass graft(s) of the extremities	
I70.6-	Atherosclerosis of non-biological bypass graft(s) of the extremities	
I70.7-	Atherosclerosis of other type of bypass graft(s) of the extremities	
<b>Other and unspecified Atherosclerosis</b>		
I70.90	Unspecified atherosclerosis	
I70.91	Generalized atherosclerosis	
I70.92	Chronic total occlusion of artery of the extremities	