Peripheral Artery Disease (PAD) 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>
<thead>
<tr>
<th>Value</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1.30</td>
<td>Non-compressible</td>
</tr>
<tr>
<td>1.00 – 1.29</td>
<td>Normal</td>
</tr>
<tr>
<td>0.91 – 0.99</td>
<td>Borderline</td>
</tr>
<tr>
<td>0.41 - 0.90</td>
<td>Mild to moderate PAD</td>
</tr>
<tr>
<td>0.00 – 0.40</td>
<td>Severe PAD</td>
</tr>
</tbody>
</table>

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**


### 2015 ICD-10-CM PVD Diagnostic Codes

<table>
<thead>
<tr>
<th>ICD-10-CM-Code</th>
<th>ICD-10-CM Description</th>
<th>Definition / Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>I73.9</td>
<td>Peripheral vascular disease, unspecified</td>
<td></td>
</tr>
<tr>
<td>I73.89</td>
<td>Other specified peripheral vascular diseases</td>
<td></td>
</tr>
</tbody>
</table>

### Diabetic Peripheral Angiopathy

- **E08.5-** Diabetes mellitus due to underlying condition w/diabetic peripheral angiopathy
  - () Add 5th 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

### Atherosclerosis of native arteries of the extremities

- **I70.20-** Unspecified Atherosclerosis of native arteries of extremities
  - () Add 6th 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 6th 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-)

### Atherosclerosis of bypass graft of the extremities

- **I70.30-** Unspecified Atherosclerosis of unsp. type of bypass graft(s) of extremities
  - Add 6th character:
    - 1 – right leg
    - 2 – left leg
    - 3 – bilateral legs
    - 8 – other extremity
    - 9 – unspecified extremity

- **I70.31-** Atherosclerosis of unsp. type of bypass graft(s) of extremities w/intermittent claudication

- **I70.32-** Atherosclerosis of unsp. type of bypass graft(s) of extremities w/rest pain

- **I70.33-** Atherosclerosis of unsp. type of bypass graft(s) of right leg w/ulceration
  - Add 6th 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 unsp. type of bypass graft(s) of left leg w/ulceration

- **I70.35** Atherosclerosis of unsp. type of bypass graft(s) of other extremity w/ulceration
  *Use add'l code to identify severity of ulcer (L98.49-)

### Atherosclerosis of other types of bypass grafts of the extremities

- **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

### Other and unspecified Atherosclerosis

- **I70.90** Unspecified atherosclerosis

- **I70.91** Generalized atherosclerosis

- **I70.92** Chronic total occlusion of artery of the extremities

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**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)

**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

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