






# Peripheral vascular disease

Peripheral vascular disease (PVD) affects 10–15% of the population, with about half of affected people asymptomatic. PVD is a disorder characterised by obstruction of arterial blood flow (not including the coronary and intracranial circulations), most commonly manifesting as leg ischaemia. It is a manifestation of systemic atherosclerosis and is associated with a high risk of CVD death. There is evidence that atherosclerotic risk factors are often not intensively managed in PVD patients. Early diagnosis and management is essential in the care of the patient with PVD to reduce ischaemic sequelae.

<p><b>TEACHING AND LEARNING AREAS</b></p> 	<ul style="list-style-type: none"> <li>• Pathophysiology of PVD</li> <li>• Key features on history and examination, and common co-morbidities</li> <li>• How to conduct a <a href="#">peripheral arterial examination</a></li> <li>• Differential diagnoses, especially <a href="#">neurogenic claudication</a>, and discriminating features for each</li> <li>• Appropriate investigations</li> <li>• Management of PVD, including cardiovascular risk factor management</li> <li>• Approach to referral and appropriate pathways</li> </ul>				
<p><b>PRE-SESSION ACTIVITIES</b></p> 	<ul style="list-style-type: none"> <li>• Read the 2013 AFP article <a href="#">Peripheral arterial disease</a></li> </ul>				
<p><b>TEACHING TIPS AND TRAPS</b></p> 	<ul style="list-style-type: none"> <li>• Consider PVD in patients at increased risk</li> <li>• Ankle brachial index (ABI) should be undertaken in the practice setting if available, but sensitivity may not be high</li> <li>• Treatment with antiplatelet therapy and a statin is recommended</li> <li>• Smoking cessation is a core aspect of management</li> <li>• There is good evidence for engaging the patient in a structured education program</li> <li>• Consider AAA screening in patients with PVD</li> <li>• Patients with PVD have a considerably increased future CV risk (20-30% 5-year mortality)</li> <li>• Population screening for PVD is not recommended but active case-finding is valuable</li> </ul>				
<p><b>RESOURCES</b></p> 	<table border="1"> <tbody> <tr> <td data-bbox="338 1709 434 1814"><b>Read</b></td> <td data-bbox="434 1709 1498 1814"> <ul style="list-style-type: none"> <li>• <a href="#">2016 AHA/ACC Guideline on the Management of Patients With Lower Extremity Peripheral Artery Disease</a></li> </ul> </td> </tr> <tr> <td data-bbox="338 1814 434 1917"><b>Listen</b></td> <td data-bbox="434 1814 1498 1917"> <ul style="list-style-type: none"> <li>• <a href="#">CRACKCast E087 – Peripheral Arteriovascular disease</a></li> </ul> </td> </tr> </tbody> </table>	<b>Read</b>	<ul style="list-style-type: none"> <li>• <a href="#">2016 AHA/ACC Guideline on the Management of Patients With Lower Extremity Peripheral Artery Disease</a></li> </ul>	<b>Listen</b>	<ul style="list-style-type: none"> <li>• <a href="#">CRACKCast E087 – Peripheral Arteriovascular disease</a></li> </ul>
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<p><b>FOLLOW UP &amp; EXTENSION ACTIVITIES</b></p> 	<ul style="list-style-type: none"> <li>• Registrar to undertake clinical reasoning challenge and discuss with supervisor</li> </ul>				

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## Clinical Reasoning Challenge

Harriet Hawke, a 66 year old pastor, is a long-term patient of the practice. She describes pain in both calves when she walks which has been getting worse over the past 4 months. There is no pain at night. She has a past medical history of hypertension which is well controlled with candesartan. She smoked about ten cigarettes a day until the age of 50 and drinks about 30g alcohol/week.

QUESTION 1. You suspect vascular claudication from PVD. What are the MOST IMPORTANT key features on history to help differentiate this diagnosis from other possible causes? List up to FOUR key features.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

QUESTION 2. Further history supports your initial diagnosis of vascular claudication. Which are the MOST IMPORTANT initial investigations at this point? List up to THREE initial investigations.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

QUESTION 3. The results of these investigations support your diagnosis. What are the MOST APPROPRIATE initial management steps that you would recommend for Harriet at this point? List up to FOUR initial management steps.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

QUESTION 4. Three months later Harriet returns to the surgery as a fit-in appointment. She presents with a story of sudden severe pain in the right lower leg, associated with weakness. What is the single MOST IMPORTANT management step at this point?

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## ANSWERS

### QUESTION 1

You suspect vascular claudication from PAD. What are the MOST IMPORTANT key features on history to help differentiate this diagnosis from other possible causes?

- Pain settles with rest
- Pain with prolonged standing (typical of lumbar canal stenosis)
- Back pain
- Hip/knee pain
- Lower limb neurological symptoms e.g. paraesthesia, weakness

### QUESTION 2

Further history supports your initial diagnosis of vascular claudication. Which are the MOST IMPORTANT initial investigations at this point?

- Fasting lipid profile
- HbA1c
- Arterial doppler studies lower limbs

### QUESTION 3

The results of these investigations support your diagnosis. What are the MOST APPROPRIATE initial management steps that you would recommend for Harriet at this point?

- Commence statin
- Antiplatelet therapy
- Structured walking/exercise program
- Low salt, low fat diet

### QUESTION 4

Three months later Harriet returns to the surgery as a fit-in appointment. She presents with a story of sudden severe pain in the right lower leg, associated with weakness. What is the single MOST IMPORTANT management step at this point?

- Urgent transfer to hospital for revascularisation