

# Peripheral oedema

Oedema is broadly defined by an accumulation of fluid in the intercellular tissue. Peripheral oedema is a non-specific symptom, with a wide range of possible causes. A systematic approach to assessing peripheral oedema will assist in differentiating simple causes from more serious conditions. Peripheral oedema is a common presentation to general practice and one that registrars are likely to be unfamiliar with managing.

<p><b>TEACHING AND LEARNING AREAS</b></p> 	<ul style="list-style-type: none"> <li>• Physiological mechanisms of peripheral oedema</li> <li>• Common causes of peripheral oedema – cardiac, hepatic, renal, drugs, pregnancy, myxoedema, protein-loss, venous stasis</li> <li>• Clinical assessment, including key features on history and examination</li> <li>• Clinical examination of <a href="#">JVP</a> and <a href="#">ascites</a></li> <li>• Appropriate investigations</li> <li>• Treatment options for specific conditions</li> <li>• Indications for referral</li> </ul>				
<p><b>PRE-SESSION ACTIVITIES</b></p> 	<ul style="list-style-type: none"> <li>• Review the 2015 Medicine Today article – <a href="#">A guide to peripheral oedema</a></li> </ul>				
<p><b>TEACHING TIPS AND TRAPS</b></p> 	<ul style="list-style-type: none"> <li>• Oedema associated with protein loss e.g. malabsorption, liver failure, nephrotic syndrome, does not change with dependency</li> <li>• Consider venous or lymphatic obstruction in unilateral swelling</li> <li>• Consider OSA as a cause in patients with pulmonary hypertension</li> <li>• Lymphoedema, lipoedema and myxoedema cause non-pitting oedema</li> <li>• Avoid the use of diuretics in patients with oedema solely due to chronic venous insufficiency</li> </ul>				
<p><b>RESOURCES</b></p> 	<table border="1"> <tbody> <tr> <td data-bbox="328 1624 438 1736"><b>Read</b></td> <td data-bbox="438 1624 1505 1736"> <ul style="list-style-type: none"> <li>• 2013 AAFP article <a href="#">Edema – diagnosis and management</a></li> </ul> </td> </tr> <tr> <td data-bbox="328 1736 438 1848"><b>Watch</b></td> <td data-bbox="438 1736 1505 1848"> <ul style="list-style-type: none"> <li>• <a href="#">An approach to peripheral edema</a> – 11 minute video lecture</li> </ul> </td> </tr> </tbody> </table>	<b>Read</b>	<ul style="list-style-type: none"> <li>• 2013 AAFP article <a href="#">Edema – diagnosis and management</a></li> </ul>	<b>Watch</b>	<ul style="list-style-type: none"> <li>• <a href="#">An approach to peripheral edema</a> – 11 minute video lecture</li> </ul>
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<p><b>FOLLOW UP/EXTENSION ACTIVITIES</b></p> 	<ul style="list-style-type: none"> <li>• Registrar to undertake the clinical reasoning challenge and discuss with supervisor</li> </ul>				

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## Clinical Reasoning Challenge

Graeme Throsby is a 66-year-old retired stockbroker who presents to you with a 6 month history of worsening bilateral ankle swelling. He tells you that the swelling is much worse in the evening and settles overnight. He says that this has never been a problem for him before. He has a past medical history of well controlled hypertension and gout, but no other significant medical issues. He takes candesartan and allopurinol but has not taken any new medications over this period.

QUESTION 1. What are the MOST IMPORTANT key features of history to help identify a serious cause of Graeme's oedema? List up to FOUR.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_

QUESTION 2. There are no features to suggest a serious cause. Examination reveals mild bilateral pitting oedema but is otherwise unremarkable. What initial investigations are the MOST APPROPRIATE at this point? Select as many investigations from the following list as most appropriate.

- FBC
- CXR
- ESR
- EUC
- LFT
- Cardiac ECHO
- Upper abdominal USS
- TSH
- ACR
- BNP
- BSL
- D-dimer
- Venous doppler studies lower limbs
- ECG

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## ANSWERS

### QUESTION 1

What are the MOST IMPORTANT key features of history to help identify a serious cause of Graeme's oedema?

- Shortness of breath
- Palpitations
- Fatigue
- Oliguria
- Weight changes
- Alcohol use

### QUESTION 2

There are no features to suggest a serious cause. Examination reveals mild bilateral pitting oedema but is otherwise unremarkable. What initial investigations are the MOST APPROPRIATE at this point? Select as many investigations from the following list as appropriate.

- FBC
- EUC
- LFT
- TSH
- ACR
- ECG