

CLiP

15 minute Worksheet



Helping patients with symptoms other than pain

7: Oedema

(See also worksheet 8: Lymphoedema. These 2 worksheets are best done together)

Intermediate level

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Aim of this worksheet

To review the causes of oedema and identify features that should prompt concern.

How to use this worksheet

- You can work through this worksheet by yourself, or with a tutor. An interactive online version is also available on www.helpthehospices.org.uk/clip
- Read the case study below, and then turn to the Work page overleaf.
- Work any way you want. You can start with the exercises on the Work page using your own knowledge. The answers are on the Information page - this is not cheating since you learn as you find the information. Alternatively you may prefer to start by reading the Information page before moving to the exercises on the Work page.
- This CLiP worksheet should take about 15 minutes to complete, but will take longer if you are working with colleagues or in a group. If anything is unclear, discuss it with a colleague.
- If you think any information is wrong or out of date let us know.
- Use the activity on the back page and take this learning into your workplace.

Case study

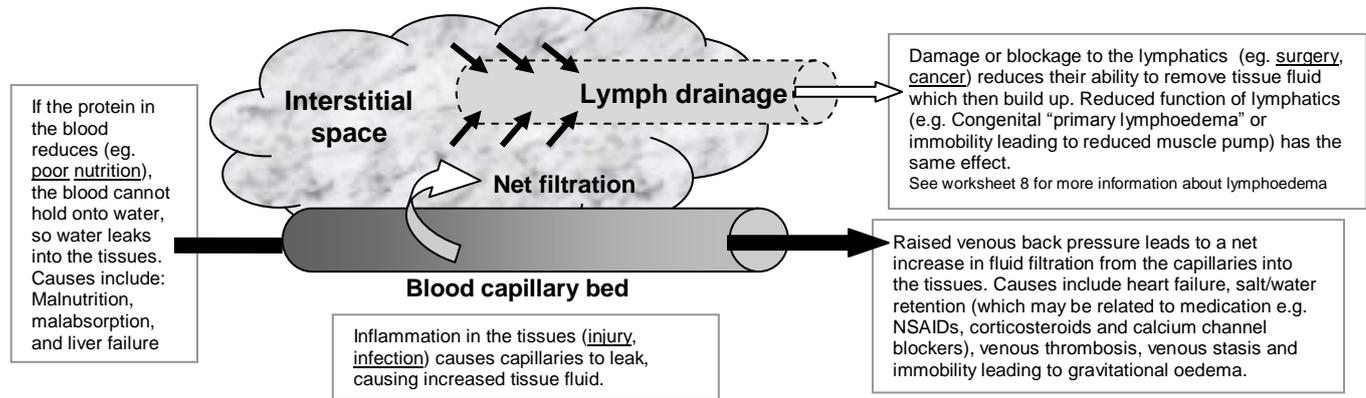
John is a 54 year old man who had surgery for a carcinoma of the colon. Despite liver metastases he has been managing well. He has been troubled with some ankle swelling for the past two months. One week ago he woke up in the morning with a swollen left leg. Any discomfort has now settled, but the leg is still very swollen.

v16

What is oedema?

In normal conditions, there is a net filtration of fluid out of capillaries into the tissues. Some fluid returns to the capillaries whilst the rest is removed by a drainage system called the lymphatics.

The build up of excess fluid in the tissues (oedema) occurs whenever the filtration rate exceeds lymphatic drainage. There can be many causes:



Why bother identifying different causes of oedema?

Different causes of oedema need different approaches to management, while some causes require urgent treatment (e.g. venous thrombosis)

Of 144 referrals to a lymphoedema clinic* causes were:

Primary lymphoedema	9%	Of those with secondary lymphoedema:
Secondary lymphoedema	54%	44% were non-cancer related
Other causes of oedema	26%	56% were cancer related of which 21% had advanced disease
(eg venous, lipoedema, gravitational)		
Combined causes	11%	* (St Oswalds Hospice Lymphoedema service audit 2005)

Signs and symptoms of oedema

Features that need urgent investigation or treatment. Underlined features indicate 'alarm' signs. They need prompt attention!

- Sudden onset (hours to days). Bilateral limb +/- midline oedema (head, genitals). Soft pitting oedema. Dusky purplish hue. Consider **acute vena caval obstruction**. (Blockage of main veins draining upper or lower body). Headache is a feature of superior vena caval obstruction (SVCO).
- Distended prominent veins over trunk may indicate a more **chronic vena caval obstruction**.
- Sudden onset with localised tense oedema which may be painful or tender with dusky, purplish hue and distended veins which persist on elevation. Consider **venous thrombosis**.
- Very soft oedema, breathlessness on exertion and lying flat. Consider **heart failure**.
- Pink skin (erythematous), warmer than surrounding area or other limb, pain, may feel systemically unwell +/- pyrexia. Consider infection = '**cellulitis**'.
- Demarcated lesions in the skin. May have raised edges or satellite lesions. May advance quite rapidly (days or weeks), or may ulcerate or 'fungate'. Consider **local malignancy**.

Other features.

- Lymph nodes. Consider **recurrent cancer** or **infection**.
- Dusky purplish hue, distended veins which do not resolve when elevated, thread veins particularly around ankle, possibly with skin ulceration. Consider **venous incompetence**.
- Lower leg soft oedema. Poor mobility. Consider **dependency / gravitational oedema or low protein oedema**.
- Large skin folds, tissues doughy to palpation, non-pitting, tender and bruises easily. Dimpled appearance due to expansion of subcutaneous fat lobules with tethering of skin. Bilateral. Pantaloon effect at ankles or wrists with relatively normal shape feet/hands. Person often overweight. This may be **lipoedema**.

What about John's swelling?

The rapid appearance of John's swelling overnight suggests a blood clot.

This needs urgent investigation and treatment.

Other causes to consider include local recurrence of his cancer, especially if lymph nodes are present.

Write

Oedema is caused by a build up of fluid in the tissues.
Write down some causes of the following types of oedema

Types of oedema	Examples of causes
Reduced protein in the blood (prevents blood holding onto water)	
Inflammation in tissues (causes capillaries to leak)	
Increased pressure in veins (forces more fluid out of capillaries)	
Blocked or damaged lymphatics (reduce ability to remove tissue fluid)	

Line up

Match the causes of swelling on the right with the signs or symptoms on the left
NB. some have several causes or several signs and symptoms
The first one has been done for you

Signs or symptoms	Cause of oedema
Sudden onset of oedema (within hours)	Acute vena caval obstruction
Dusky, purplish hue to skin	Venous thrombosis (DVT)
Distended veins over the trunk	Infection (cellulitis)
Skin ulceration	Lipoedema (abnormal fat deposition)
'Pantaloons' effect	Heart failure
Breathlessness	Chronic vena caval obstruction
Pink skin	Local malignancy
Midline oedema (ie. genitals or head)	Venous incompetence
Pain	Lymphoedema
Very soft oedema	
Systemic upset / pyrexia	
Satellite lesions / nodules	

Reflect

Think about what signs and symptoms would prompt you to seek out further advice, investigation or treatment

Reflect

Think about what might have caused John's swelling

FURTHER ACTIVITY: Oedema

Find a patient in your practice with oedema of the legs.

List the possible causes of oedema in that patient.

FURTHER READING: Oedema

Journal articles

Anonymous. Arm oedema following breast cancer treatment. *Drug & Therapeutics Bulletin*. 2000; **38**(6): 41-3.

Honnor A. Understanding the management of lymphoedema for patients with advanced disease. *International Journal of Palliative Nursing*. 2009; **15**(4): 162, 164, 166-9.

Kirkova J, Oneschuk D, Hanson J. Deep vein thrombosis (DVT) in advanced cancer patients with lower extremity edema referred for assessment. *Am J Hosp Palliat Care* 2005; **22**(2):145-9. (RS)

Moffat CJ, Franks PJ, Doherty DC, Williams AFW, Badger C, Jeffs E, Bosanquet N & Mortimer P. Lymphoedema: an underestimated health problem. *QJ Medicine* 2003; **96**(10) p731-8

Mortimer PS, Levick JR Chronic Peripheral Oedema: the critical role of the lymphatic system. *Clinical Medicine* 2004; **4**(5): 448 -453)

Todd M. Understanding lymphoedema in advanced disease in a palliative care setting. *International Journal of Palliative Nursing*. 2009; **15**(10): 474, 476-80.

Topham EJ, Mortimer PS. Chronic lower limb oedema. *Clinical Medicine*. 2002; **2**(1):28-31. (R, 64refs)

Resource books and websites

A Guide to Symptom Relief in Palliative Care, 6th ed. Regnard C, Dean M. Oxford: Radcliffe Medical Press, 2010
Oxford Textbook of Palliative Medicine 4th ed. Hanks G, Cherny NI, Christakis NA, Fallon M, Kaasa S, Prtenoy RK. eds. Oxford : Oxford University Press, 2010.

PCF3- Palliative Care Formulary, 3rd ed. Twycross RG, Wilcock A. Oxford: Radcliffe Press, 2008. Also on www.palliativedrugs.com

Twycross, R, Jenns, K, Todd, J (eds). Lymphoedema. Radcliffe Medical Press. Oxford, 2000

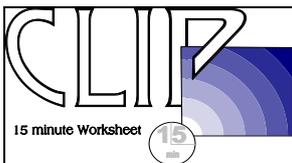
Lymphoedema Framework. Best practice for the management of Lymphoedema. International consensus. London: MEP Ltd., 2006

St Oswalds Hospice Lymphoedema service audit 2005

Symptom Management in Advanced Cancer, 4th edition. Twycross RG, Wilcock A, Stark Toller C. Oxford: Radcliffe Press, 2009

The management of Lymphoedema in Advanced cancer and oedema at the end of life. Ed Glover D. International Lymphoedema Framework and Canadian Lymphoedema Framework.

British Lymphology Society. <http://www.thebls.com>



Current Learning in Palliative care
An accessible learning programme for health care professionals

15 minute worksheets are available on:

- An introduction to palliative care
- Helping the patient with pain
- Helping the patient with symptoms other than pain
- Moving the ill patient
- Psychological needs
- Helping patients with reduced hydration and nutrition
- Procedures in palliative care
- Shared decision making
- Understanding and helping the person with learning disabilities
- The last hours and days
- Bereavement

Available online on
www.helpthehospices.org.uk/clip