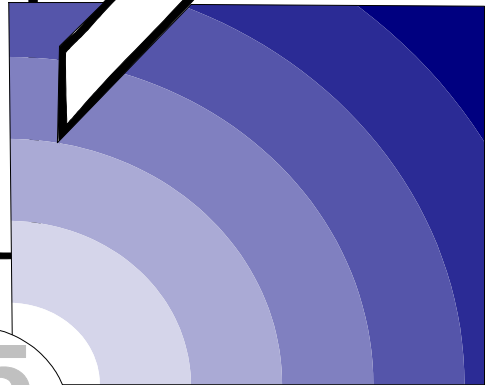
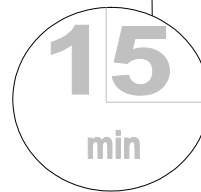


# CLIP

15 minute Worksheet



## Helping patients with symptoms other than pain

### 7: Oedema

Intermediate level

Produced by  
**Coleman Education  
 Centre**  
**St. Oswald's Hospice**  
 Regent Avenue  
 Gosforth  
 Newcastle-upon-Tyne  
 NE3 1EE

Tel: 0191 285 0063  
 Fax: 0191 284 8004

This version written and edited by:  
**Claud Regnard**  
 Consultant in Palliative Medicine  
 St. Oswald's Hospice, Newcastle  
 Hospitals NHS Trust and  
 Northgate&Prudhoe NHS Trust

**Andrew Hughes,**  
 Consultant in Palliative Medicine,  
 St. Oswald's Hospice and Gateshead  
 NHS Trust

#### Aim of this worksheet

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

#### How to use this worksheet

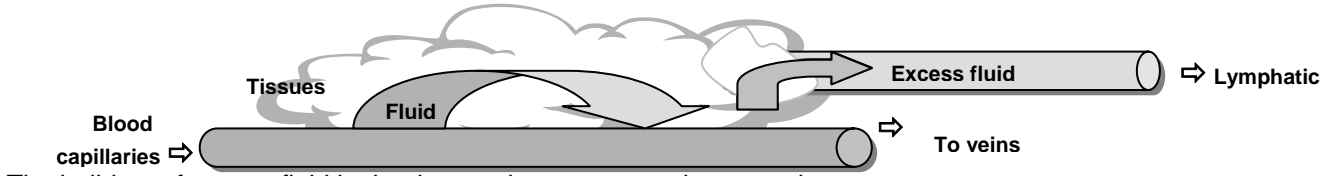
- You can work through this worksheet by yourself, or with a tutor.
- Read the case study below, then work on the questions overleaf.
- The work page is on the right side, the information page is on the left.
- Work any way you want: you can try answering from your own knowledge (in which case fold over the information page), you can use the information page (this is not cheating- you learn as you find the information), or you can use other sources of information
- It should take you about 15 minutes. If anything is unclear, discuss it with a colleague.
- If you think any information is wrong or out of date let us know
- Take this learning into your workplace using the activity on the back page.

#### Case study

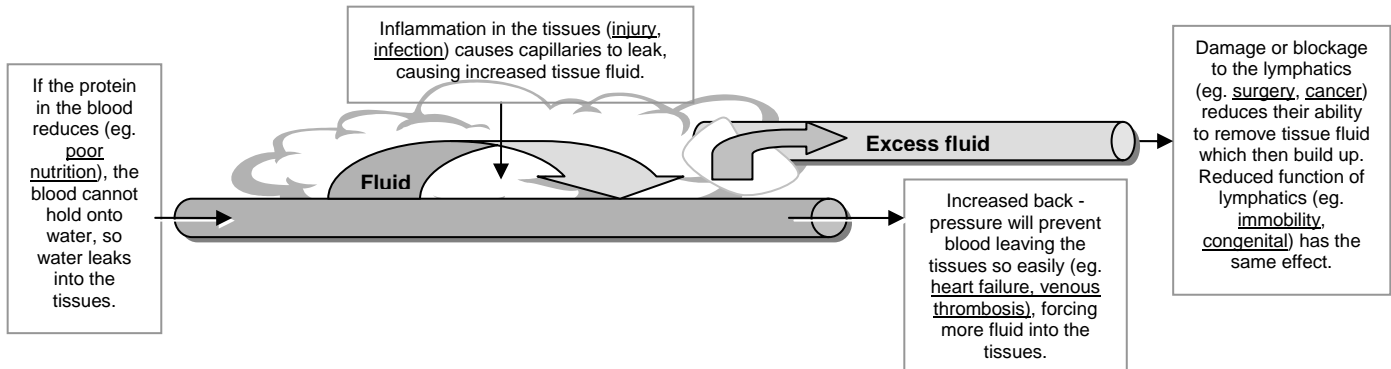
**John is a 54 year old man who had surgery for a carcinoma of the colon. Despite liver metastases he has been managing well. He has been troubled with some ankle swelling for the past two months. One week ago he woke up in the morning with a swollen left leg. Any discomfort has now settled, but the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

## What is oedema?

Fluid normally leaks from blood capillaries into the tissues. Some returns to the capillaries, while the rest is removed by a drainage system called the lymphatics.



The build up of excess fluid in the tissues that causes oedema can have many causes:



## Why bother identifying different causes of oedema?

Some causes of oedema need urgent treatment (eg. venous thrombosis). In 106 referrals to a lymphoedema clinic the causes were:

Lymphoedema only	70%	(of which 2/3 obstructive, 1/3 other)
Mixed causes	19%	(of which 1/3 heart failure)
Other causes of oedema	11%	(of which 1/3 venous)

In advanced disease, problems in multiple systems cause multiple symptoms.

## Signs and symptoms of oedema Underlined causes indicate 'alarm' signs and symptoms

Many causes of oedema just cause swelling in the area affected without clear clues as to the problem. However, some causes have patterns of signs and symptoms that are typical:

### Causes that need urgent investigation or treatment

*Vena caval obstruction* (blockage of main veins draining upper or lower body):

Acute type: sudden onset (hours to days) / bilateral limb oedema / pits easily / midline oedema of head or genitals / dusky, purplish hue to skin / headache if superior vena cava obstructed (SVCO).

Chronic type: prominent, distended veins over trunk /  $\pm$  mild oedema / distended veins on elevation.

*Venous thrombosis* (blood clot in vein): sudden onset (hours to days) / localised, tense oedema / local pain / dusky, purplish hue to skin / distended veins on elevation.

*Heart failure*: very soft oedema / breathlessness on exercise  $\pm$  on lying down / tiredness.

*Local malignancy*: dusky, purplish hue to skin with demarcated, often raised edge / satellite lesions / advances within time (occasionally days to weeks) / local ulceration may occur.

*Infection*: warmer than other limb / pink skin (pinker than surrounding skin) / pain / pyrexia  $\pm$  systemic illness.

### Other causes

*Venous incompetence*: usually in legs / may be a dusky, purplish hue to the skin / warmer than surrounding skin /  $\pm$  distended veins / skin ulceration if long-term / distended veins / veins collapse on elevation / with tourniquet applied, on standing: if veins stay empty = superficial incompetence; if veins fill = deep incompetence.

*Lipoedema*: large, soft skin folds in proximal limb / dimpled appearance to skin / stops at ankles in 'pantaloon effect' / avoids feet and ankles.

*Dependency oedema*: invariably lower legs / usually soft / skin is initially healthy.

## Alarm signs and symptoms

These suggest that further investigation and treatment is needed urgently:

midline oedema (head or genitals)	ulceration
rapid onset (hours - days)	breathlessness
dusky or purplish hue	distended veins

## What about John's swelling?

The rapid appearance of John's swelling overnight suggests a blood clot. This needs urgent investigation and treatment.

**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)	

**Write**

Match the causes of swelling on the left with the signs or symptoms on the right

*NB. some have several causes or several signs and symptoms*

The first one has been done for you

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

**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 cause 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.
- Badger CM, Peacock JL, Mortimer PS. A randomized, controlled, parallel-group clinical trial comparing multilayer bandaging followed by hosiery versus hosiery alone in the treatment of patients with lymphedema of the limb. *Cancer*. 2000; **88**(12):2832-7.
- Hofman D. Oedema and the management of venous ulcers. *Journal of Wound Care*. 1998; **7**(7): 345-8.
- Jeffs E. Management of chronic oedema. *Journal of Wound Care*. 1998; **7**(9 Suppl): 1-4.
- Leung AK, Robson WL. Oedema in childhood. *Journal of the Royal Society of Health*. 2000; **120**(4): 212-9.
- Mulvenna P, Gillham L, Regnard CFB. Lymphangiosarcoma- experience in a lymphoedema clinic. *Palliative Medicine*, 1995; **9**: 55-59.
- Topham EJ, Mortimer PS. Chronic lower limb oedema. *Clinical Medicine*. 2002; **2**(1):28-31.
- Young GL, Jewell D. Interventions for varicosities and leg oedema in pregnancy. *Cochrane Database of Systematic Reviews [computer file]*. 2000 ; **2**:CD001066.

### Resource books and websites

- Lymphoedema. Jenns K, Todd J, Twycross RG. Abingdon : Radcliffe Medical Press. 2000. 377p, ISBN 1857753771.
- Regnard C, Badger C, Mortimer P. *Lymphoedema: advice on treatment, 3rd edition*. Beaconsfield: Beaconsfield publishers, 2003.
- A Guide to Symptom Relief in Palliative Care, 5<sup>th</sup> ed*. Regnard C, Hockley J. Abingdon: Radcliffe Medical Press, 2004
- Oxford Textbook of Palliative Medicine* 3rd ed. Doyle D, Hanks G, Cherny NI, Calman K eds. Oxford : Oxford University Press, 2003.
- PCF2- Palliative Care Formulary, 2<sup>nd</sup> ed*. Twycross RG, Wilcock A, Charlesworth S. Abingdon: Radcliffe Medical Press, 2003.
- Also on [www.palliativedrugs.com](http://www.palliativedrugs.com)
- Symptom Management in Advanced Cancer, 3rd edition*. 2001. Twycross RG, Wilcock A. Abingdon: Radcliffe Medical Press.

# CLIP

**Current Learning In Palliative care**  
**An accessible learning programme for health care professionals**

### Fifty seven 15 minute worksheets are available on:

- An introduction to palliative care (3 worksheets)
- Helping the patient with pain (9 worksheets)
- Helping the patient with symptoms other than pain (11 worksheets)
- Moving the ill patient (2 worksheets)
- Psychological needs (8 worksheets)
- Helping patients with reduced hydration and nutrition (8 worksheets)
- Procedures in palliative care (4 worksheets)
- Understanding and helping the person with alternative communication (learning disabilities) (5 worksheets)
- The last hours and days (4 worksheets)
- Bereavement (3 worksheets)

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Helping the Patient with Advanced Disease: a Workbook  
Regnard C. ed.

Oxford: Radcliffe Medical Press [www.radcliffe-oxford.com](http://www.radcliffe-oxford.com)