

# Lymphoedema

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# Aim Of The Session

- To provide an overall insight into the causes and management of Lymphoedema

# Objectives

- To differentiate between oedema and lymphoedema
- To understand the causes and types of lymphoedema / chronic oedema
- To appreciate the four cornerstones of lymphoedema/ chronic oedema management
- To identify people at risk of developing lymphoedema
- To discuss management strategies in advanced disease

# What is oedema?

- imbalance between capillary filtration and lymphatic function
- the presence of excess fluid in the interstitial spaces
- Mild oedema is not easily visible or palpable and reduces easily with bed rest and elevation
- Chronic oedema - defined as oedema that has been present for more than 3 months and does not go down overnight (*Moffatt et al 2003*)

# Causes of Oedema

- **Oedema of the feet and ankles**
  - commonly associated with CCF
  - gravitational (dependant) oedema
- **Generalised oedema**
  - severe heart failure
  - major burns
  - end stage liver disease
  - end stage kidney disease

- **Inflammation**

- local tissue factors mediate vasodilatation and increased permeability

- **Increased blood volume (fluid overload)**

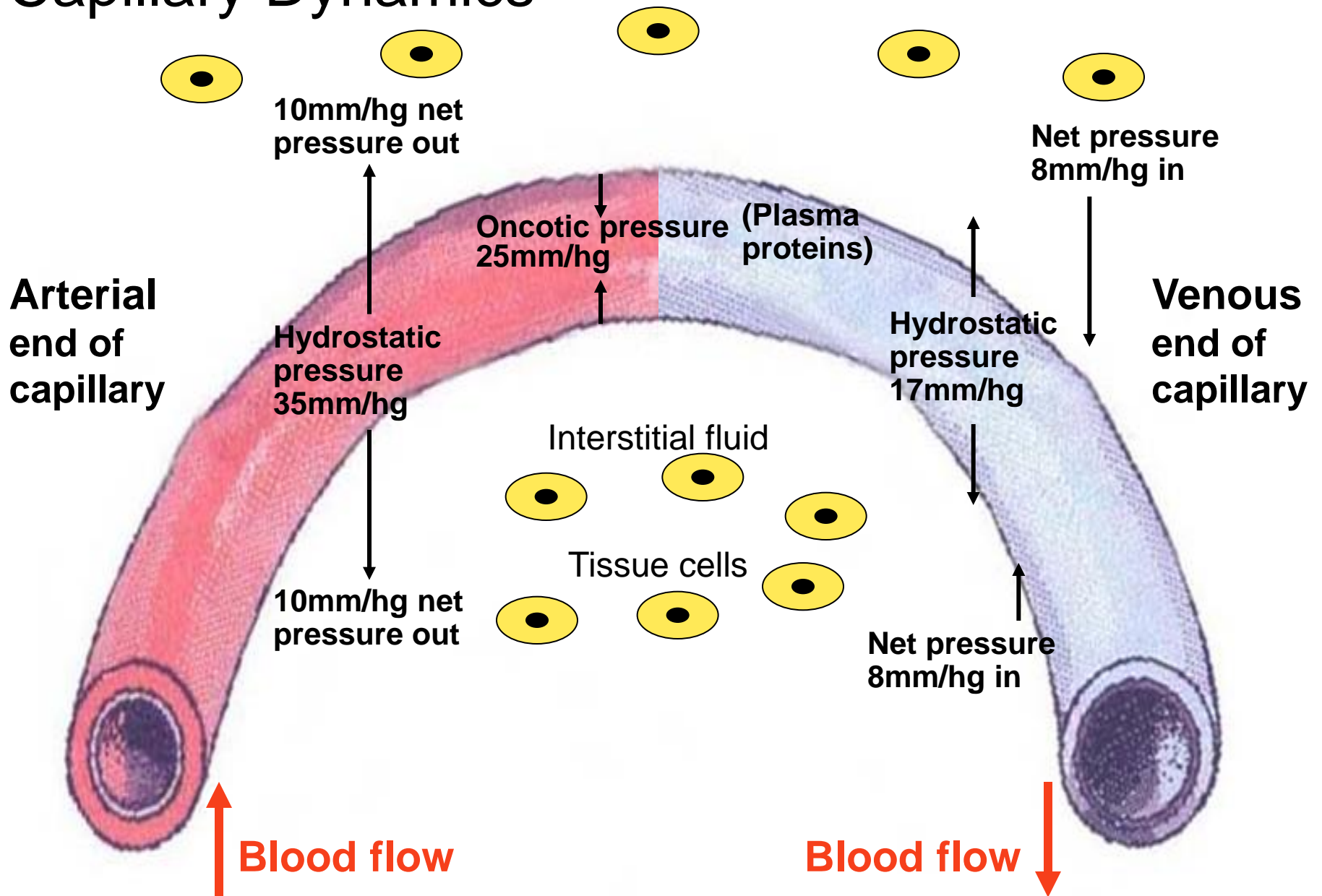
- congestive cardiac failure (angiodema)
- renal failure

- **Decreased Serum Albumin**

- malnutrition
- burns
- liver disease
- kidney disease

- **Lymphatic System Failure**

# Capillary Dynamics



# The Lymph Drainage System

- Lymph vessels increase in size as they move proximally
- Lymph nodes
- Lymph produced at a rate of 4-8 litres /day
- **Thoracic duct** collects fluid from left and lower body
  - left subclavian and left internal jugular vein = **LYMPHATIC HEART** (7 – 11 beats per minute)
- **Right lymphatic duct** –collects fluid from right upper body and drains into right cubclavian vein.



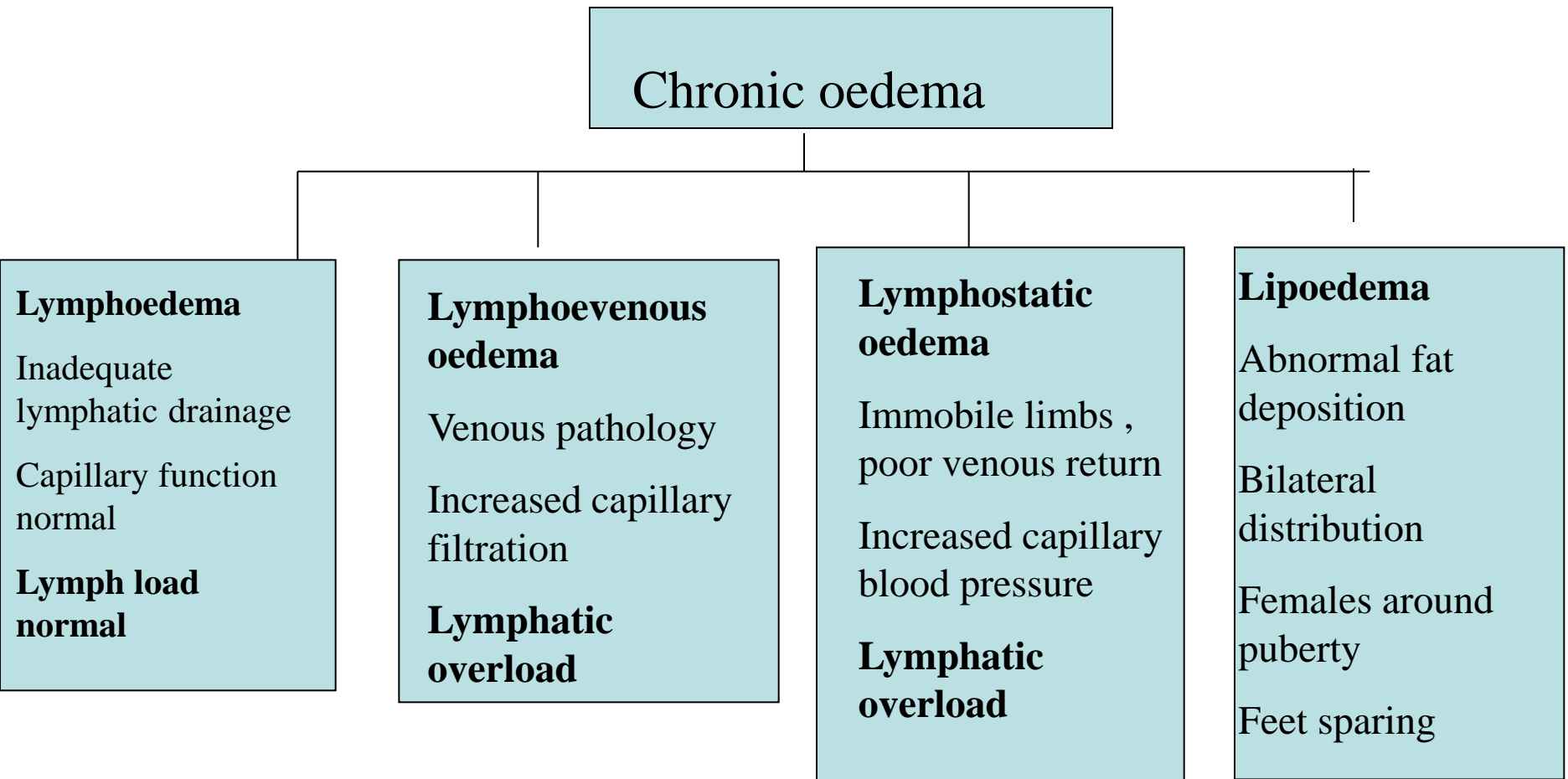
# Role of the Lymphatic System

- Supports circulatory system
- Gathers interstitial fluid from the tissues and returns it to the circulation
- Defence mechanism against bacteria
- One way system – semicircle with no pump
- Body's rubbish removal system

# What is lymphoedema?

- Chronic swelling due primarily to failure of lymphatic system
- May be of primary origin or secondary cause
- Essentially incurable but major manifestations such as swelling and infection can be improved and controlled
- May occur anywhere in the body most commonly arms and legs
- Affects both men and women

# Types of Chronic Oedema



# Types of Lymphoedema

- Primary lymphoedema
- Secondary lymphoedema
  - Cancer related
  - Non-cancer related

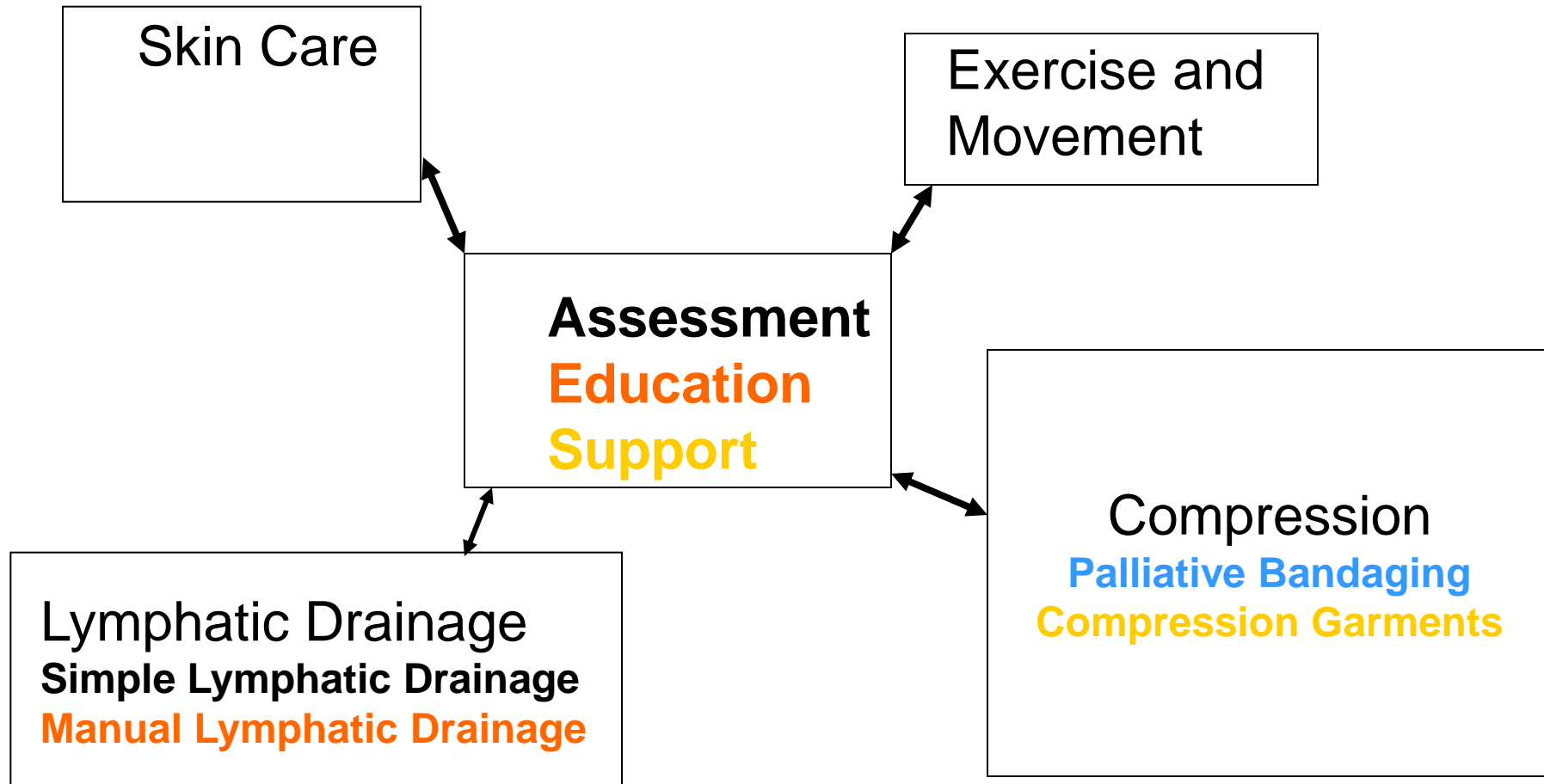
# Relevant Facts and Figures

- 2% - 83% (30% generally accepted) patients following treatment for breast cancer – arm lymphoedema (Petrek et al 1998; Erickson et al 2001; Clarke et al 2005))
- 23% -48% of patients with breast oedema following surgery for breast cancer (Ronka et al 2004)
- 20% following hysterectomy and pelvic node dissection for gynaecological cancers following (Cormier et al 2010)
- 10% following genitourinary cancers (Cormier et al 2010)
- 22% following pelvic dissection (31% with RDT ) (Cormier et al 2010)
- Prevalence of chronic oedema 1.33/1000(Moffatt et al 2003)

# So who is at risk?

- Anyone undergoing surgery that will directly impact on the lymphatic system's ability to function to it's fullest capacity
- Anyone who is paralysed or whose condition will lead to increasing muscle weakness
- Patients with a combination of complex co-morbidities such as morbid obesity, CCF, diabetes, immobility

# Four Cornerstones of Management



# Psychosocial Issues

- Low self esteem
- Body image
- Reminder of disease
- Practicalities – clothes, shoes
- Socially debilitating
- Relationships



# Patient Categories and Treatment

- Patients at risk : **ADVICE /EDUCATION**
- Patients with uncomplicated lymphoedema: **MAINTENANCE**
- Patients with complicated lymphoedema : **DECONGESTIVE LYMPHOEDEMA THERAPY**
- Patients with advanced cancer and lymphoedema **PALLIATIVE THERAPY**

# At Risk

- Skin Care advice
- Care of Limb advice
- Contact details

# Uncomplicated Lymphoedema

## Maintenance

- Skin care
- Off the shelf stocking/sleeve/glove
- Self-massage techniques
- Exercise advice
- Support

# Complicated

## Decongestive Lymphoedema Therapy

- Skin care
- Multi layer bandaging
- Manual lymphatic Drainage
- Made to measure Stocking/ Sleeve
- Exercise advice

# Palliative lymphoedema

– all or some of the following

- Skin care
- Care of the Limb/positioning
- Simple massage / modified Manual Lymphatic Drainage
- Exercise active or passive
- Palliative Bandaging
- Support stocking/sleeve
- Lymphorrhoea management

# Complications of Lymphoedema

- Lymphorrhoea
- Cellulitis

# Lymphorrhoea

- Leakage of lymph through skin
- Maybe as a result of trauma or due to inability of skin to stretch to accommodate swelling
- Risk of infection increases
- Apply non adherent sterile dressings to leaks
- Apply pressure ie bandage for 24 – 48 hours changing as necessary
- Fit hosiery to control and prevent recurrence

# Cellulitis

- Common complication of both primary and secondary lymphoedema
- Requires immediate management
- Antibiotics as per protocol
- Analgesia and fluids
- Rest and support of limb
- Removal of compression until infection controlled



# Innovative Techniques

- Kinesiotape
- Low level laser therapy
- Complimentary therapy – such as Reiki

# Who to contact for Advice

- Sheffield :Jane Harding 0114 2320689
- Doncaster: Pauline Hickling 01302 796938
- Rotherham: Donna Shaw 01709 308928
- Chesterfield: Lynda Parrish 01246 568801
- Barnsley: Heike Fraser 01226 323615

# Support for Patient, Carer, Staff

- Lymphoedema Support Network –  
[www.lymphoedema.org/lisn](http://www.lymphoedema.org/lisn)
- British Lymphology Society-  
[www.lymphoedema.org/bls](http://www.lymphoedema.org/bls)

# In Conclusion

Early recognition of symptoms of lymphoedema leads to a better outcome for the patient – prevention measures for all at risk patients are essential - and these are the responsibility of all Health Care Professionals.