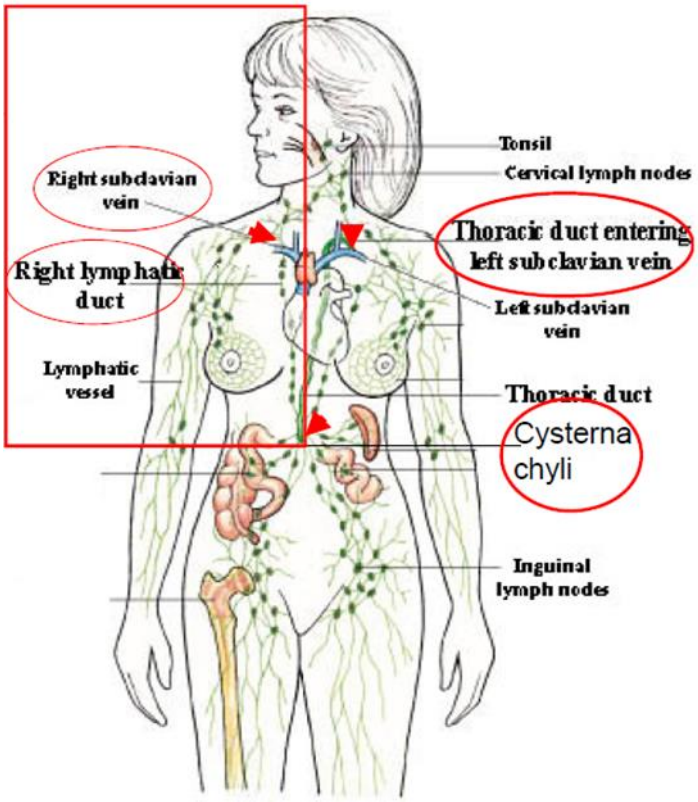
- Valves prevent backflow in lymph vessels, like in blood veins. Other features such as regulation by heart and skeletal muscle movement are also shared between veins and lymph vessels.

Interaction with circulatory system

- Lymphatic capillaries join to form lymphatic vessels
- These merge before entering one of two ducts to return lymph to blood vascular system
- The ducts are:
  - Thoracic duct: lower extremities and top left side of the body
  - Right lymphatic duct: Right upper quadrant of the body
    - Right upper quadrant = half head, thoracic cavity, abdomen and right arm
- Both ducts merge into the left and right subclavian veins, near the junction with the jugular veins
  - Other 3 quadrants, upper left hand side and two legs feed into the sterna chili – opening at the end of the thoracic duct – thoracic duct will enter left subclavian vein THIS IS REALLY IMPORTANT



Top right quadrant of the body - drains into the subclavian vein via right lymphatic duct
Rest of the body - drains into left subclavian vein via thoracic duct

- Both ducts, after joining with the subclavian veins, drain into the inferior vena cava

Explain the body's non-specific defence mechanisms & Describe the difference between non-specific and specific defences & Outline the two main types of immunity and associated immune cells & Define the concepts of self and non-self (INNATE IMMUNITY)

Mechanism	Action	Mechanism	Action
1. Mechanical mechanisms	Skin, mucous membranes	4. Cells of inflammation	Basophils
	Tears, saliva, urine		Mast cells
2. Chemical mediators	Complement		Eosinophils
	Interferons	5. Natural killer cells	N/A
3. Phagocytic cells	Neutrophils	6. Inflammatory response	Local inflammation
	Macrophages		Systemic inflammation

B and T cells

- All white blood cells come from stem cells called Hematopoietic stem cells
  - These are located in the bone marrow which generate all WBC
  - B cells mature in the bone marrow and become immunocompetent
  - T cells migrate to the thymus to complete maturation and become immunocompetent.
    - Immunocompetent – ability to recognise an antigen
    - An antigen is any non-self molecule recognised by the immune system
- Once they've matured, they migrate to the lymph nodes, strategically located around the body
  - Tonsils – sore throat, T and B cells and WBC housed there respond to the infection