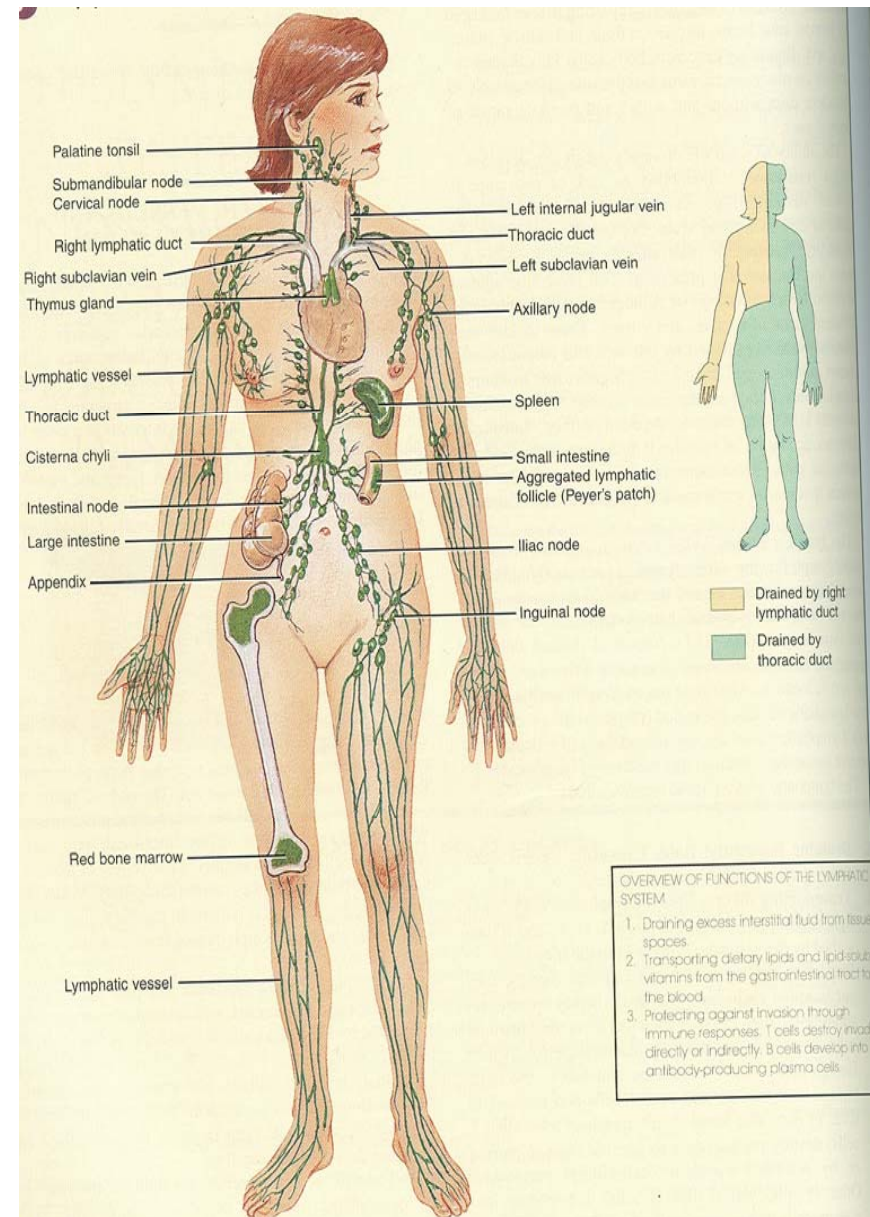


Lymphatic System

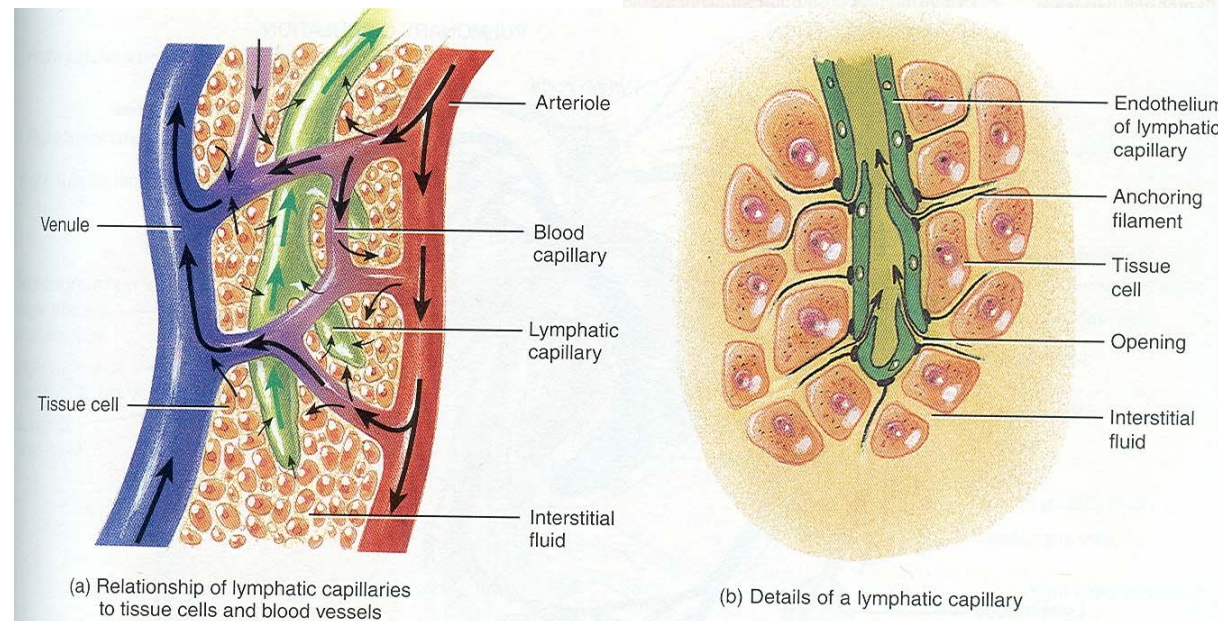
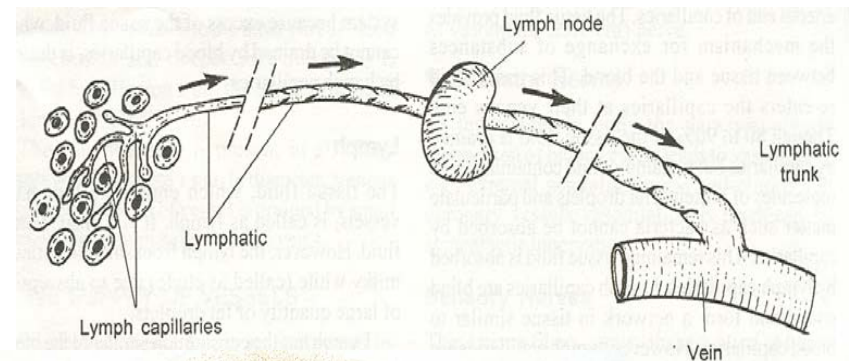
- Lymph vessels
- Lymph capillaries
- Lymphatic ducts
- Lymphatic organs:
 - Lymph node
 - Tonsils
 - Spleen
 - Thymus
 - Peyer's patches
 - Lymphatic follicles

Consists of

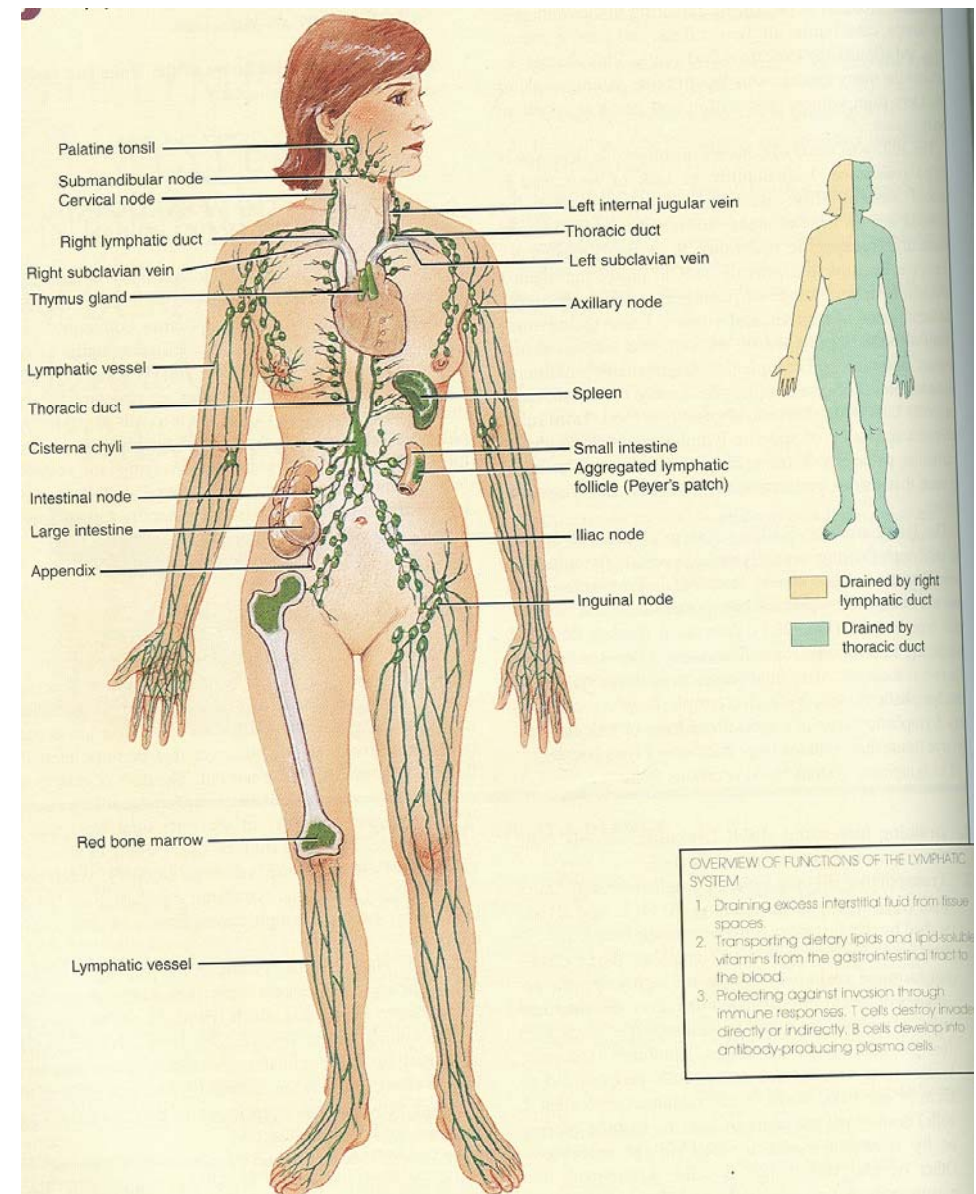
- Lymph- clear watery fluid. Has constitution similar to blood plasma & interstitial fluid
- Lymph capillaries & lymph vessels draining it
- System is auxiliary to venous system



- Lymph capillary- Small blind ended lymph vessel which form a net work in interstitial spaces
- Lymph vessels- Begin from lymph capillaries & are somewhat similar to veins;
- Unite to form large lymph vessels which converge on lymph nodes
- Afferent lymphatic vessel & efferent lymphatic vessel

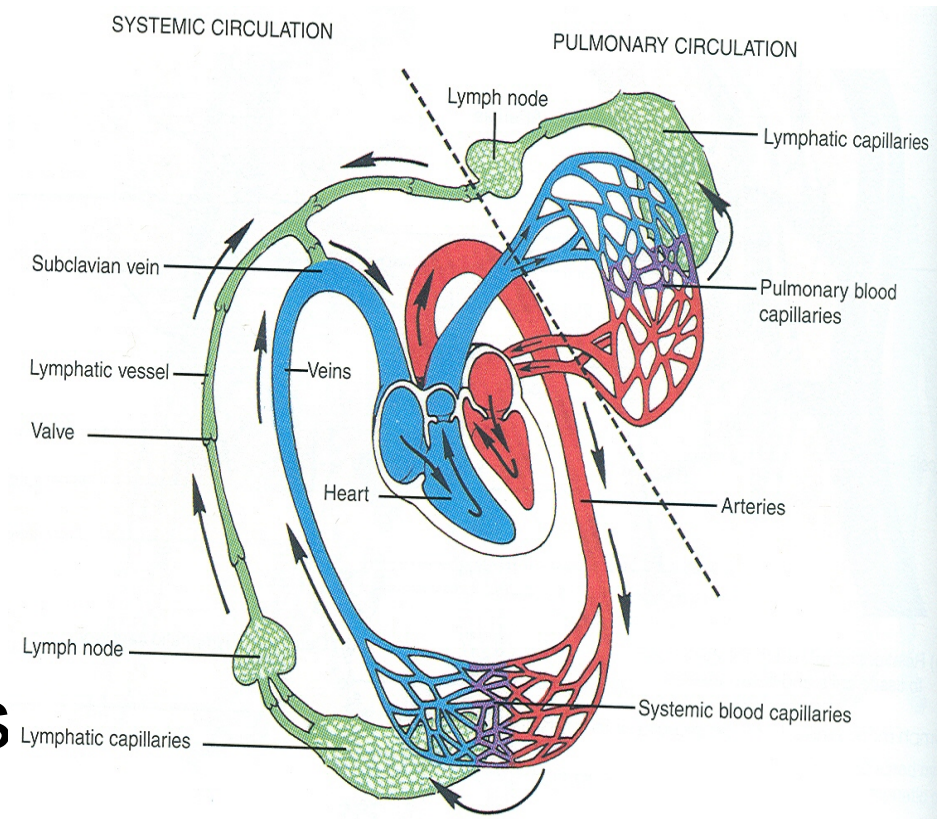


- Lymphatic trunk on right side unite to form right ***lymphatic duct*** which opens at the junction of right subclavian & right internal jugular vein
- Lymphatic trunk on left side unite to form a ***thoracic duct*** which opens at the junction of left subclavian & left internal jugular vein
-



Lymphatic circulation

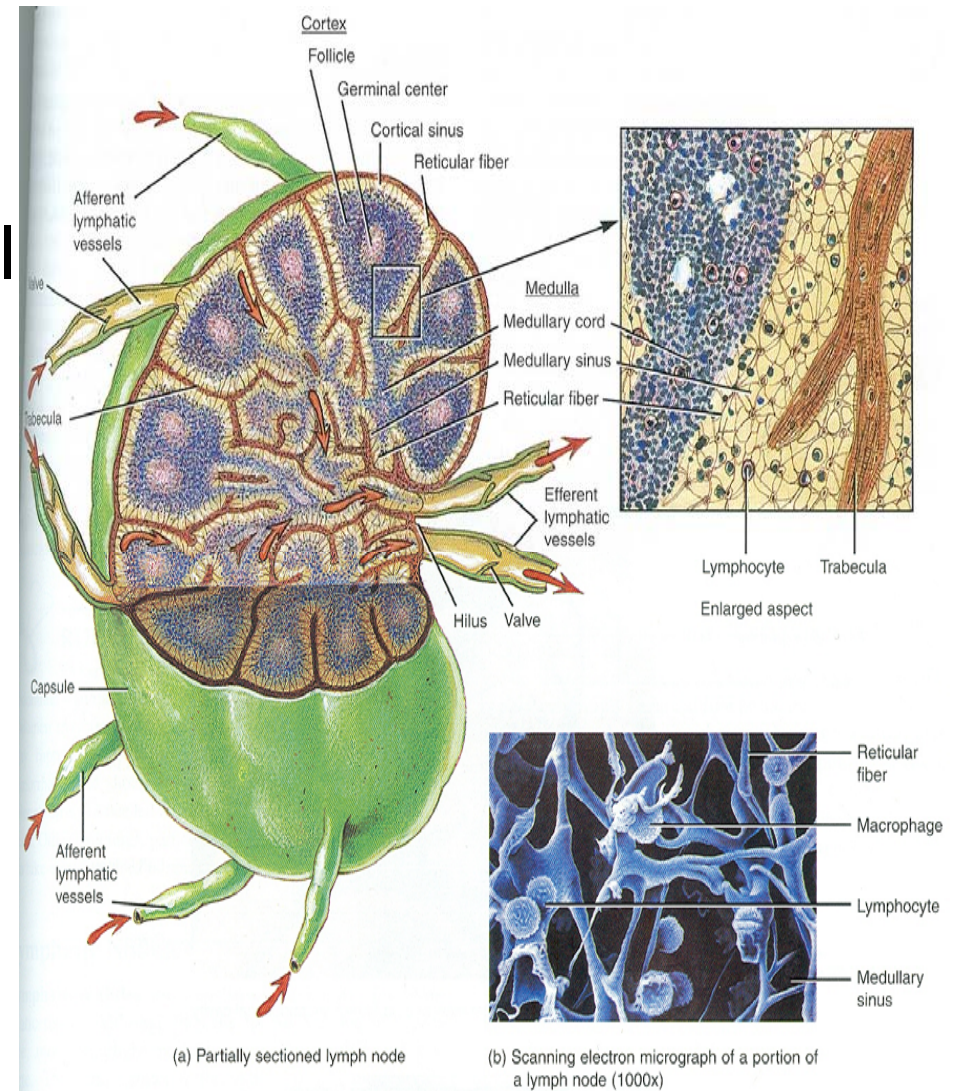
- Filtration pressure
- Rhythmic contraction of the smooth muscles.
- Muscular contraction
- Arterial pulsation
- Respirator movements
- Negative pressure



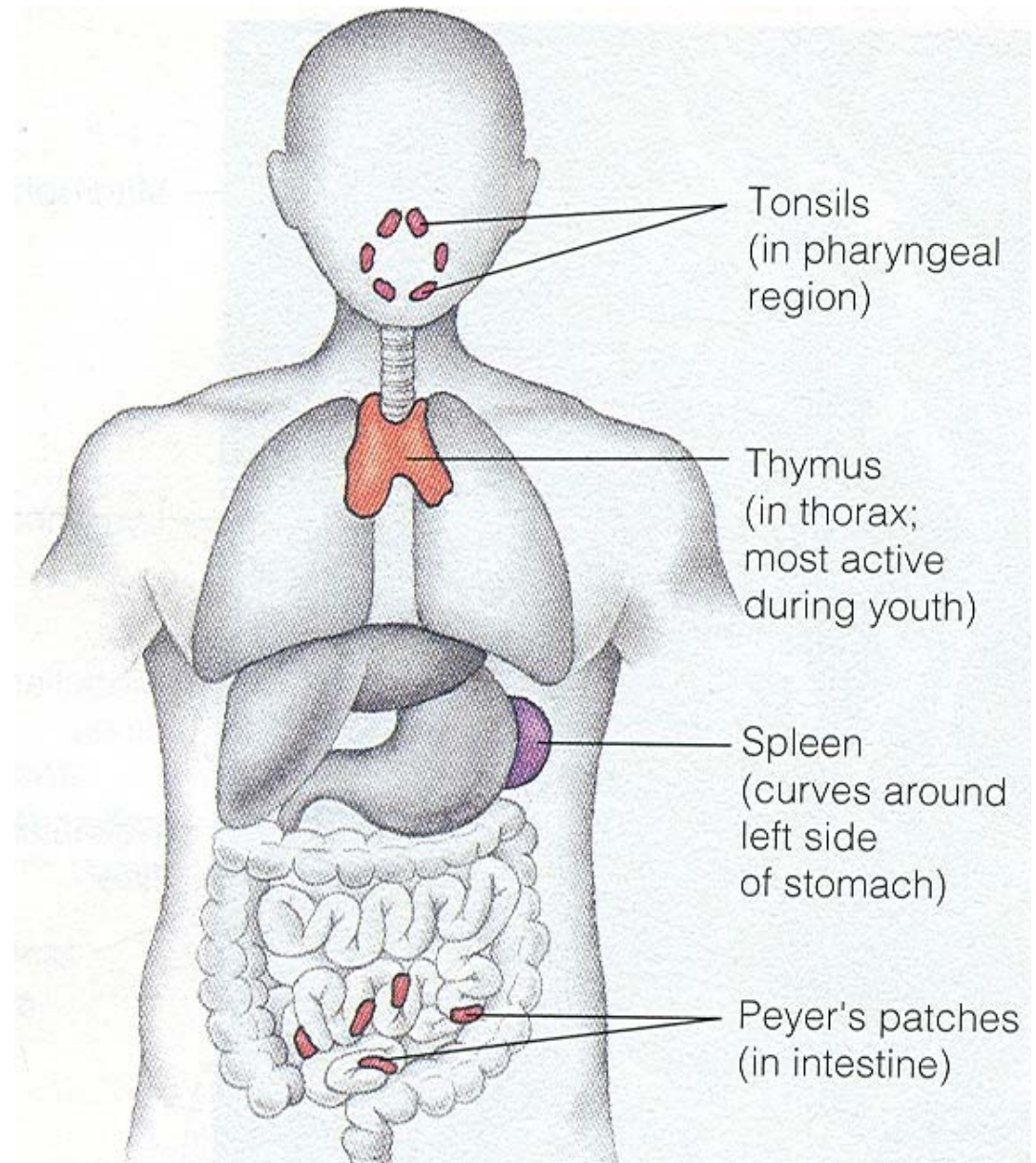
Factor regulating the lymph flow through lymphatics

- They are small blind vessels which are subjected to the mechanism of musculo-venous pump
- They have closely placed multiple valves
- Negative pressure in brachiocephalic veins help in drainage of lymph in blood at the root of neck
- Movement of the body also help in drainage of lymph

- Lymph nodes act as a filter for lymph
- Vary in size from pin head to large bean.
- Afferent lymphatics enter at the convex border; while single efferent vessel comes out from hilum with blood vessels
- Lymph nodes are usually arranged in two sets, superficial & deep



- Other places where there is collection of lymphoid tissue like as in tonsils, wall of alimentary canal, respiratory mucosa, spleen, thymus
- Lymphocytes are the main aggregation of these organs.



Functions of lymphatic system-

- Assists venous system. These capillaries drain macromolecule of proteins, foreign particle, cancerous cells & fat.
- Lymph node act as a filter for lymph.
- Lymph node & various other lymphoid organ produce lymphocytes.
- Plasma cells of the lymph nodes produce antibodies in response to infection.
- Provide a route for spread of infection or cancer cells.