LYMPHATIC SYSTEM

Lymph: (p. 784) “interstitial fluid”, leaks from capillaries, composition similar to plasma.
Bathes organs, (excess lymph: edema) called lacteals in villi of intestines, collect absorbed fat in form of chylomicrons (juice, tiny)

Valved lymph vessels (p. 785) collect lymph, carry it to lymph nodes which filter it.

Cisterna chylì (p 786) collects filtered lymph (at level of 2nd lumbar vertebra) drained by thoracic duct into left subclavian vein

Lymph is filtered by variety of organs:

TONSILS: (P 791) lymphoid tissue embedded in oral and pharyngeal epithelium
- pharyngeal tonsils (adenoids) at back of nasopharynx
- palatine tonsils seen on either side of mouth at rear
down throat from tongue
- lingual tonsils

LYMPH NODE: (p 792)
Three functions of lymph nodes:
1) Remove and destroy bacteria and foreign particles
2) B cells in nodes may differentiate into PLASMA CELLS
3) return tissue fluid to blood stream

Anatomy: (p 792)
- afferent lymphatic vessels
- fibrous capsule
- trabeculae divide it into compartments
- reticular fibers trap and hold:
  - lymphocytes in germinal centers
  - macrophages (in medullary cords)
- sinuses direct flow from cortex to medulla
- efferent lymphatic vessels

Lymphangitis: inflamed lymph vessel, seen as “red lines” from site of infection.
- Bubo = infected, swollen lymph node, turns black (bubonic plague)

LYMPHOID ORGANS: (p 793) (see for overview)
- THYMUS: largest in childhood, atrophies thereafter
  T cells originate here, empowered to differentiate, mature
- SPLEEN: (P 795) largest lymphoid organ
  functions: RBC formation in embryo
  filters blood stream (Effete RBC etc removed)
  Blood reservoir
- PEYER’S PATCHES: lymphatic tissue imbedded in walls of ileum
  Respiratory lymph nodes
  Axillary lymph nodes
  Inguinal lymph nodes