

Membranes

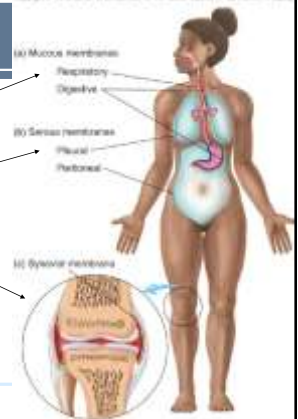
- Thin sheet/layer of tissue covering a structure or lining a cavity
- Types:
 - Epithelial
 - Connective

Membranes

Mucous

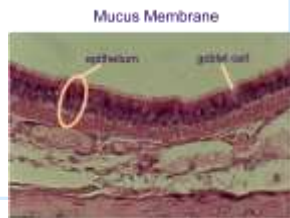
Serous

Synovial



Epithelial Membranes

- Mucous membranes
- Serous membranes
- Cutaneous membranes
(Skin)



Mucous Membranes

- Structure:
 - various types of epithelia resting on a thick layer of connective tissue
 - Mucous glands secrete mucus
- Locations:
 - line cavities that opening to outside of body
 - digestive, respiratory, excretory, reproductive tracts

Mucous Membranes

- Functions:
 - Protection – oral cavity (stratified squamous epithelium)
 - Absorption – intestine (simple columnar epithelium)
 - Secretion – mucus and digestive enzymes in intestine (simple columnar epithelium)

Serous Membranes

- Structure:
 - simple squamous epithelium resting on delicate layer of areolar connective tissue
 - Mucous glands secrete serous fluid onto membrane surface
- Locations:
 - line trunk cavities
 - cover organs

Serous Membranes

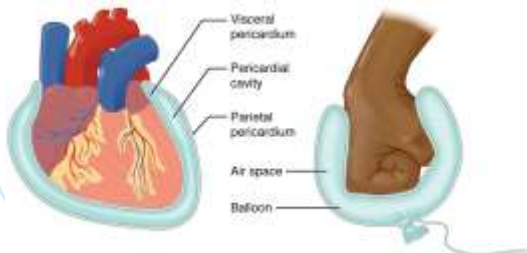
- Function:
 - prevent damage from abrasion between organs in thoracic and abdominopelvic cavities

Serous Membranes

- Pleural membranes – lungs
 - Pleurisy – inflammation of pleural membranes
- Peritoneal membrane – abdominopelvic
 - Peritonitis – inflammation of peritoneum

Serous Membranes

- Pericardial membrane – heart
 - Pericarditis – inflammation of pericardium



Cutaneous Membrane

- Skin
 - More later

Connective Tissue Membranes

- Synovial Membranes
- Meninges

Synovial Membranes

- Structure
 - Loose connective tissue
 - No epithelial tissue
 - Cells secrete synovial fluid
- Function
 - Line joint cavities
 - Reduce friction, prevent abrasion, cushioning



Meninges

- Dura mater
 - Dense fibrous connective tissue
 - Directly under skull
 - Works with others to protect brain and spinal cord



Meninges

- Arachnoid mater
 - Thin, transparent, fibrous tissue
 - Middle layer
 - Contains blood vessels
 - Fluid-filled spaces
 - Cushions brain



Meninges

- Pia mater
 - Very thin, very delicate fibrous tissue
 - Lies against brain, spinal cord
 - Impermeable to fluid
 - Blood supply

