Department of Dentistry Second Class

General Histology

Lab: 1

Dr.Lec. Fatima

Tissues: group of cells that are similar in structure and function

1. **Epithelium:** covering, linings of surfaces
2. **Connective:** support bone, ligaments, fat
3. **Muscle:** movement
4. **Nervous:** control brain, nerves, spinal cord

Function of epithelial tissue:

Protection: skin protects from sunlight, bacteria, physical damage

Absorption: lining of small intestine, absorbing nutrient into blood.

Filtration: lining of kidney tubules filtration waste from blood

plasma **Secretion:** digestive enzyme and mucus

Classification of epithelial tissue

Cell shape

Squamous=falttened like fish scales

Cuboidal=cubes

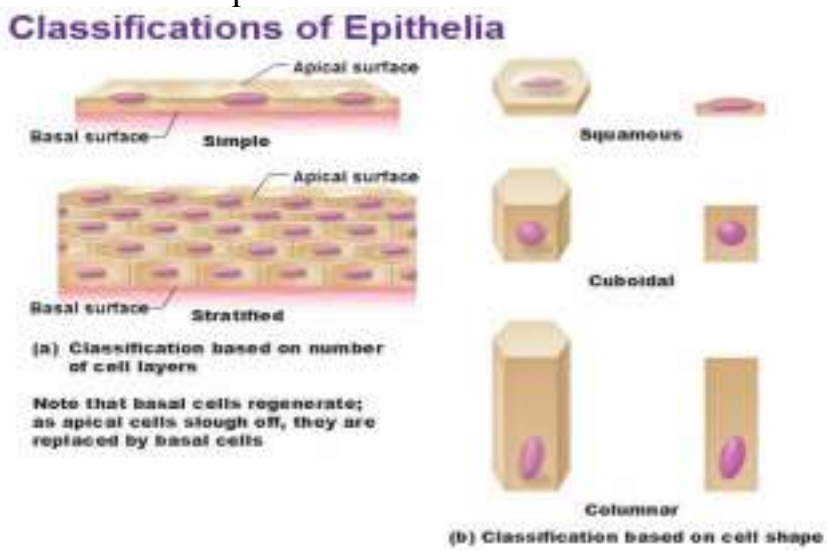
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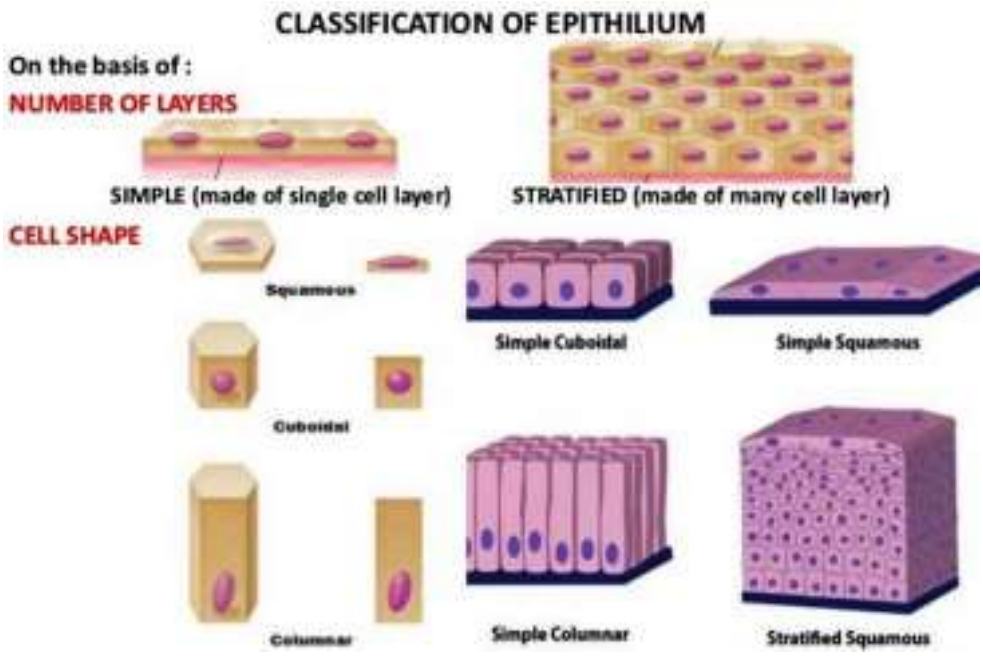
Cell layers

Simple (one layer)

Stratified (many layer)

Named for the type of cell at the apical surface

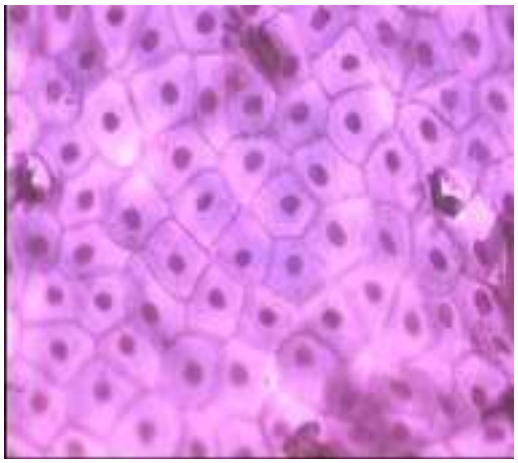


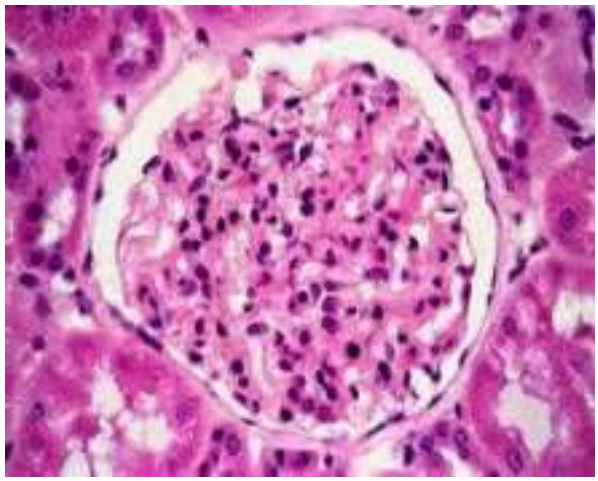


Simple squamous epithelium

Structure:

Single layer of flattened cell



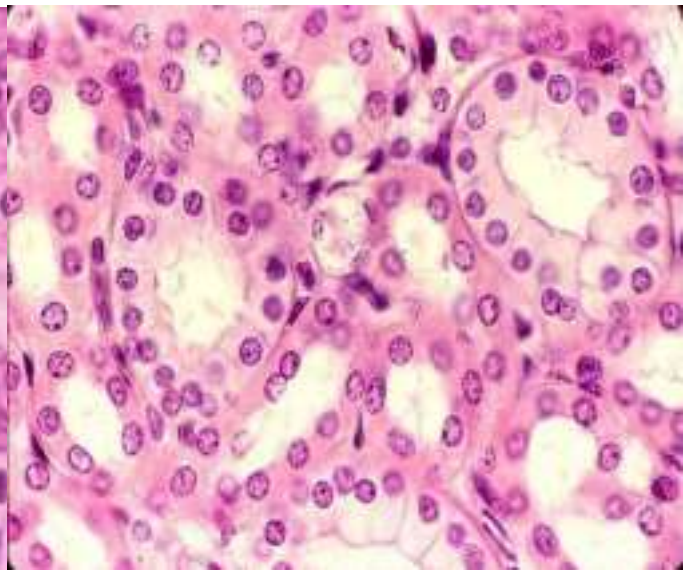


Simple cuboidal epithelium

Structure

Single layer of cube shaped cells





Simple columnar epithelium

Structure

Elongated layer of cell with nuclei at same level



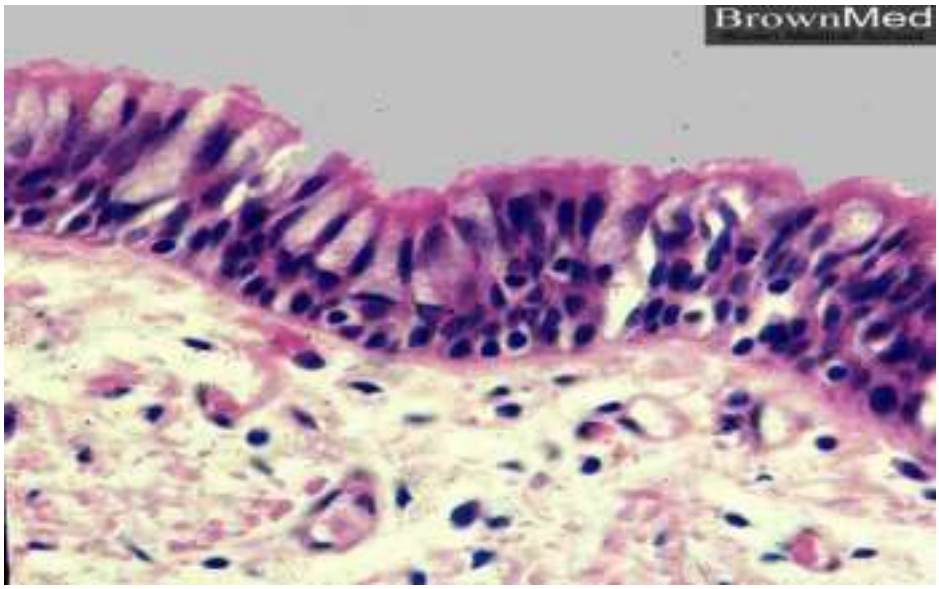


Pseudostratified epithelium

Structure

Irregularly shaped cell with nuclei at different level-appear stratified, but aren’t.

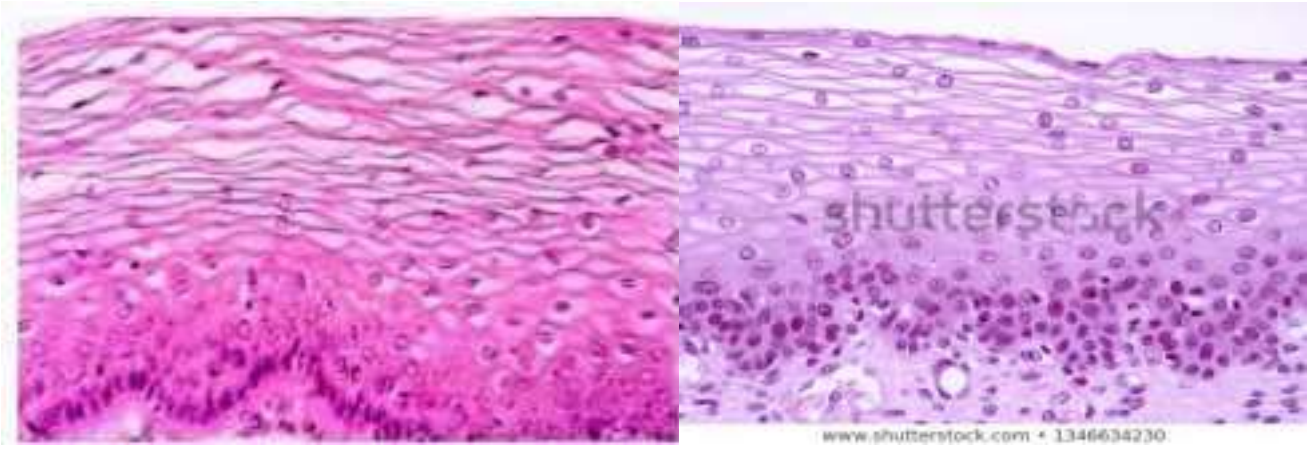
All cells reach basement membrane

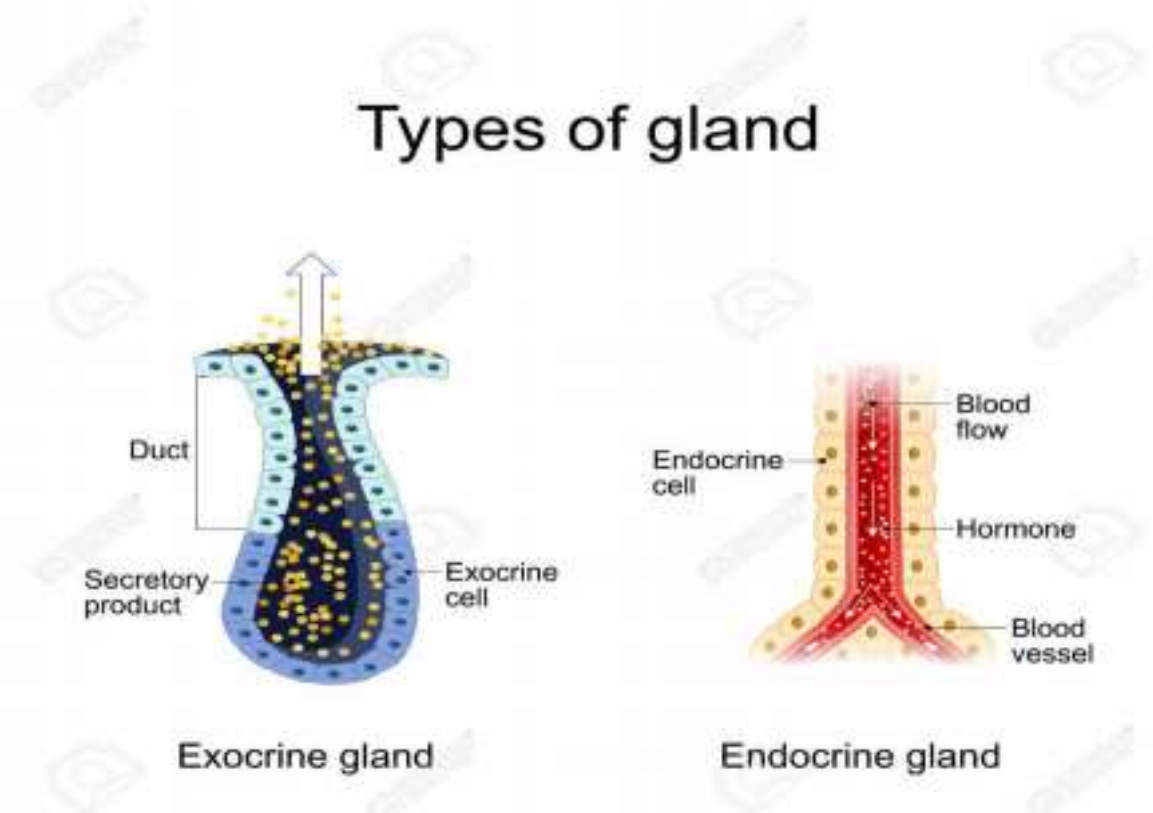


Stratified squamous epithelium

Structure

Many layers (usually cubodial/columnar at bottom and squamous at top)





Shape of exocrine glands

Branching

Simple, single, unbranched duct

Compound-branched

Shape

Tubular or alveolar

Tubular-shaped like a tube

Alveolar-shaped like flasks or sacs

Tubuloalveolar: Have both tubes and sacs in gland