

HISTOLOGY: study of tissues

TISSUE COMPONENTS:

CELLS: > 200 types

-grouped by identifying characteristics

EXTRACELLULAR MATRIX

-made by cells

-cells interact with matrix - dynamic system

4 basic tissue types

- 1) Epithelium
- 2) Connective tissue
- 3) Muscle
- 4) Nervous tissue

EPITHELIUM

DEFINITION: sheet of cells covering a surface or lining a cavity

FUNCTIONS

barrier, protective

absorption

secretion

CELL-TO-CELL ATTACHMENTS

SEALING: tight junctions (occluding junctions)

STRENGTH: anchoring junctions

adherens junctions

desmosome

hemidesmosome

BASEMENT MEMBRANE/BASAL LAMINA

EPITHELIAL CLASSIFICATION

number of cell layers; shape of cells in outer layer

APICAL SURFACE SPECIALIZATIONS

cilia

microvilli

EPITHELIA

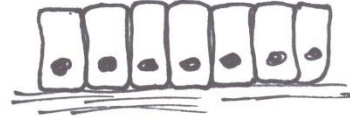
SIMPLE: SQUAMOUS



CUBOIDAL



COLUMNAR



STRATIFIED: SQUAMOUS



CUBOIDAL



COLUMNAR



PSEUDOSTRATIFIED
COLUMNAR

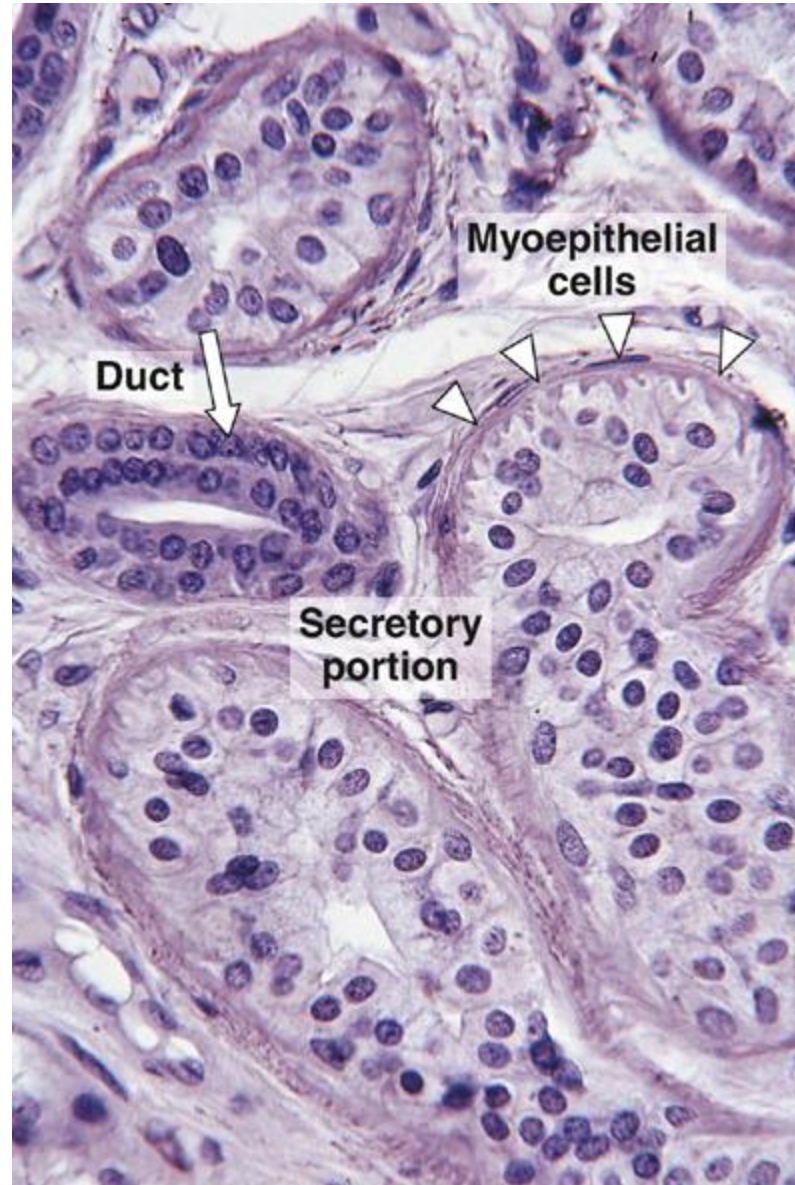


TRANSITIONAL



STRATIFIED CUBOIDAL EPITHELIUM

sweat glands



18-18 (11th Ed) - like 18-18

CILIATED EPITHELIUM: lines large airways in lung
-pseudostratified columnar



basement membrane

like 4-17