

# 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

- by number of cell layers: simple, stratified
- by shape of cells in outer layer: squamous, cuboidal, columnar

- simple squamous
- simple cuboidal
- simple columnar
- stratified squamous
- stratified cuboidal
- stratified columnar

- pseudostratified columnar
- transitional

## APICAL SURFACE SPECIALIZATIONS

- cilia
- microvilli

# EPITHELIA

SIMPLE: SQUAMOUS



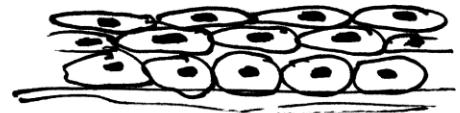
CUBOIDAL



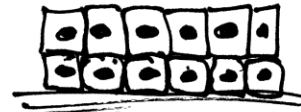
COLUMNAR



STRATIFIED: SQUAMOUS



CUBOIDAL



COLUMNAR



PSEUDOSTRATIFIED  
COLUMNAR



TRANSITIONAL

