

# Epithelium

## ● Definition

“Layered collection of adherent cells, with very little intercellular material, covering the internal and external surfaces of the body”

## ● Characteristics

- Basal surfaces attached to basement membrane
- Epithelium and its basement membrane → never penetrated by blood vessels
- Epithelial cells exhibit polarity → meaning they have different apical and basal surfaces
- The lamina propria → a thin layer of loose connective tissue that underlies the epithelium



## ● Functions

- Secretion
- Absorption
- Protection
- Receptor function

## ● Classification

- » Covering Epithelium
- » Glandular Epithelium

## ● Covering Epithelium

### ● Types

#### i) Simple Epithelium

- Comprised of “one layer” of cells
- Provides a communication/ gateway
- Role in transport of cells + molecules



## ii) Stratified Epithelium

- Comprised of two or more layers of cells
- Provides protection
- Acts as a barrier to water, disease and toxins

## iii) Special Epithelium

» Pseudostratified Ciliated Columnar Epithelium

» Transitional Epithelium

## iv) Mesothelium

- The epithelium surrounding pleural + pericardial + peritoneal cavities → provides protection



## ● Cells that make up the Epithelium

### i) Squamous cells

- Width > Height → thin cells

### ii) Cuboidal cells

- Width = Height = Depth

### iii) Columnar cells

- Height > Width