Epithelial Tissue

Lab : 4

Stage : 1st

Course : 1st

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What is a Tissue?

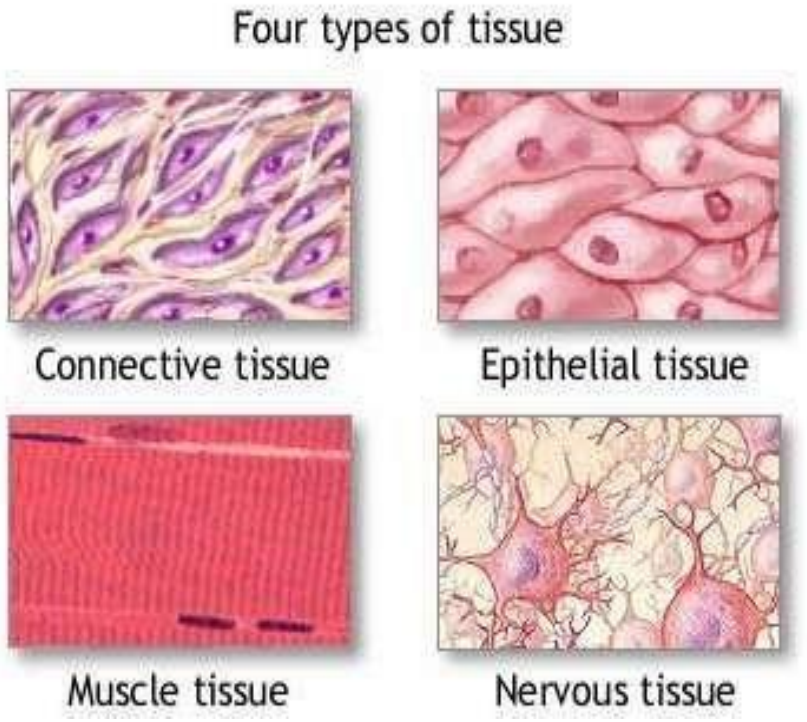
It is a group of cells working together mainly inside an organ.

Example: cardiac, muscle, or nerves

➢ Classification of Tissues

Human body is composed of 4 basic types of tissue:

- Epithelial tissue
- Connective tissue
- Muscular tissue
- Nervous tissue

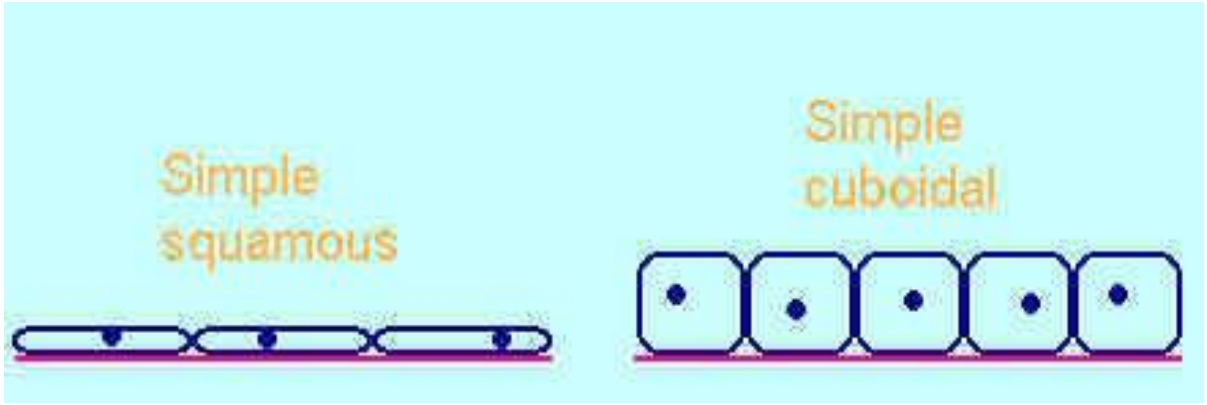


1- Epithelial Tissue

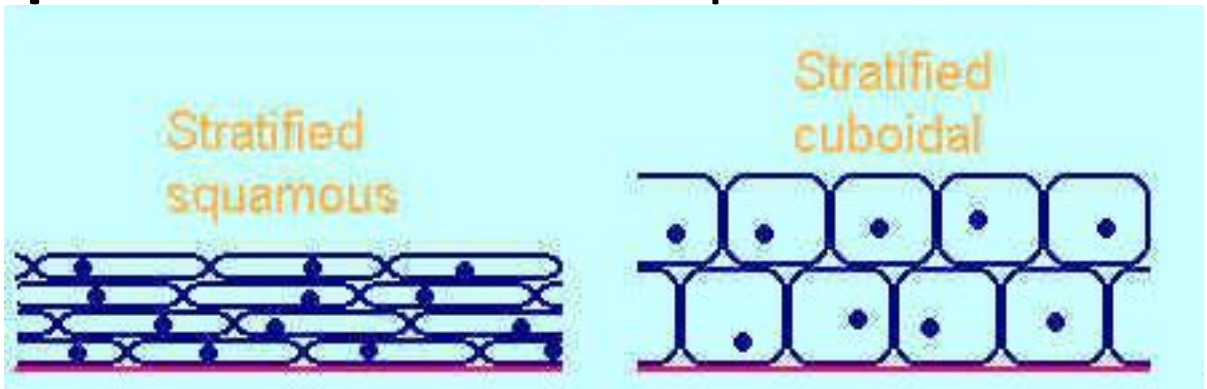
Epithelial Tissue: covers body surfaces and organs, lines body cavities

➢ Types of Epithelial Tissue according to thickness

1- **Simple Epithelial Tissue** - composed one cell layer



2- **Stratified Epithelial Tissue** – composed more than one layer of cells



➢ Types of Epithelial Tissue according to shape

1- Squamous

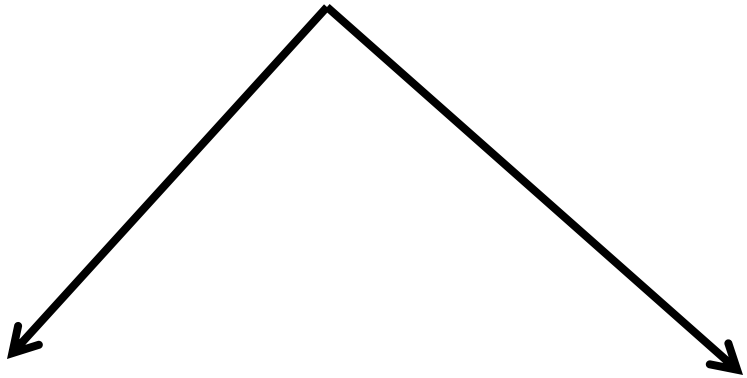
2- Cuboidal

3- Columnar

4- Pseudostratified Epithelium

5-Transitional Epithelium

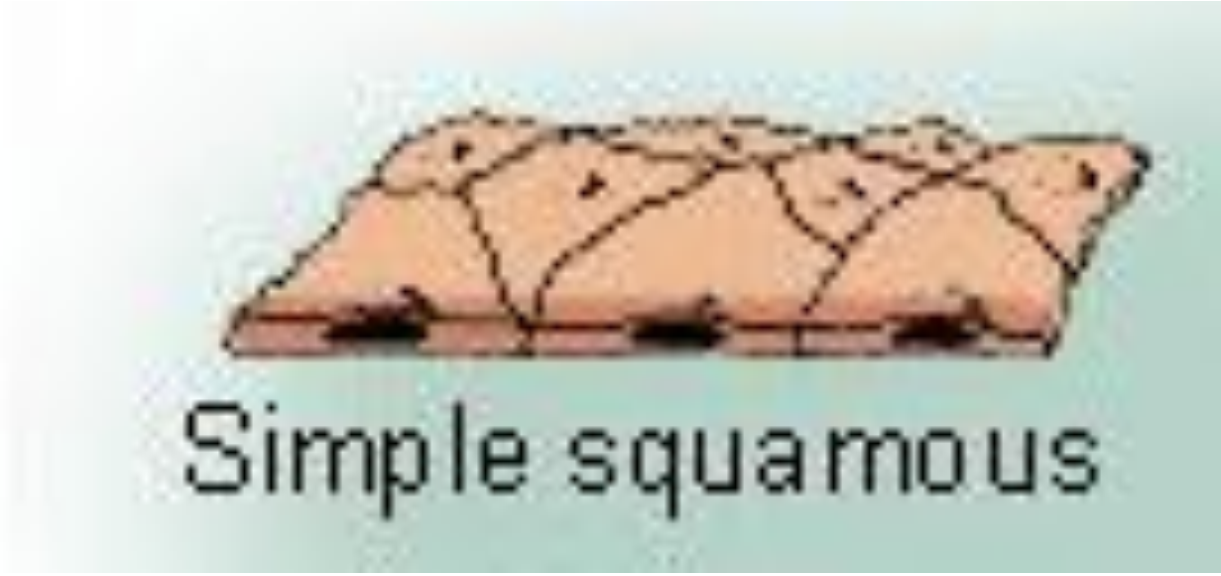
1- Squamous Epithelium

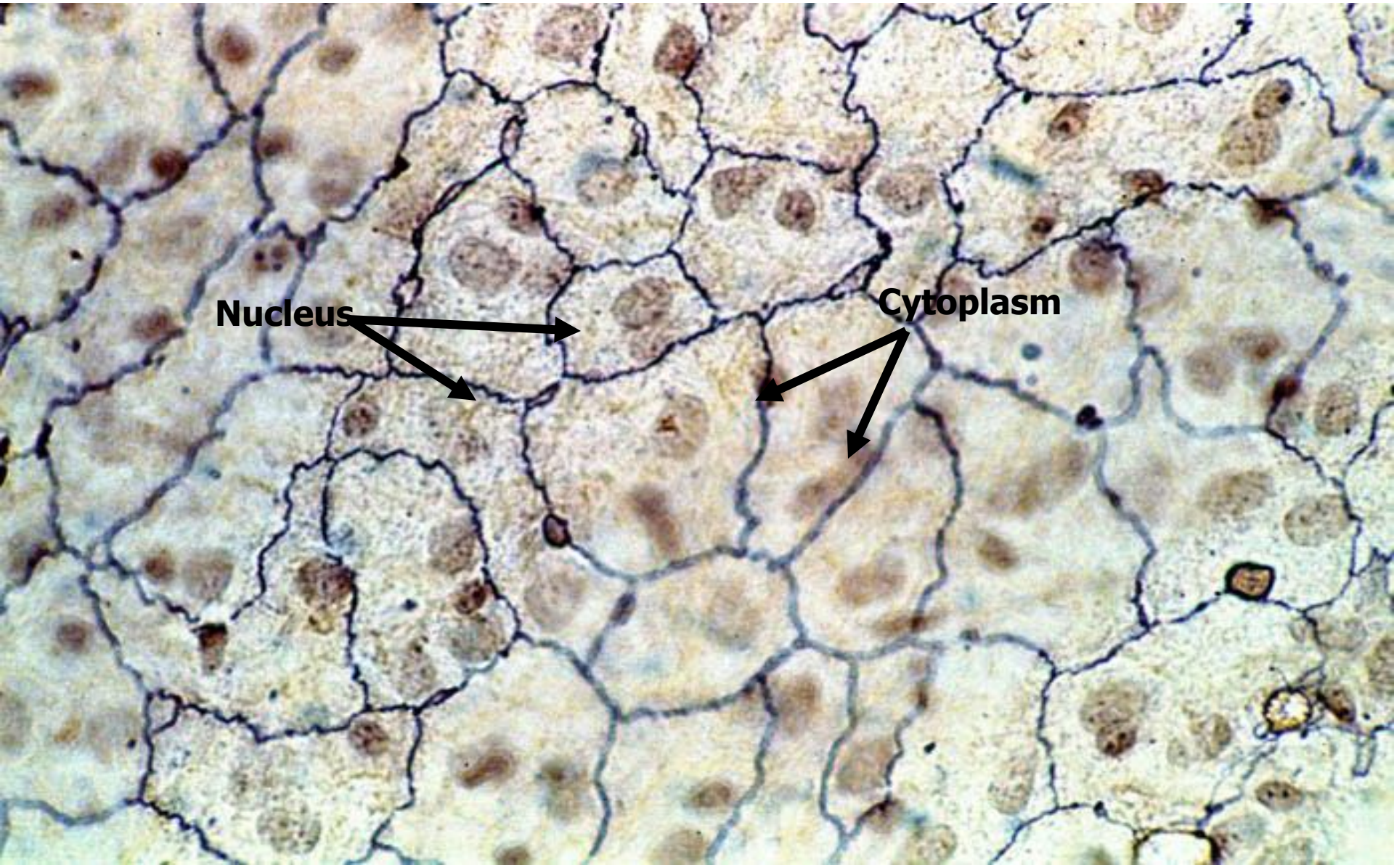


Simple Squamous Epithelium

Stratified Squamous Epithelium

- **Simple Squamous Epithelium**
  – Single layer of flattened cells
  – **Location**: lines the lungs, blood vessels and heart

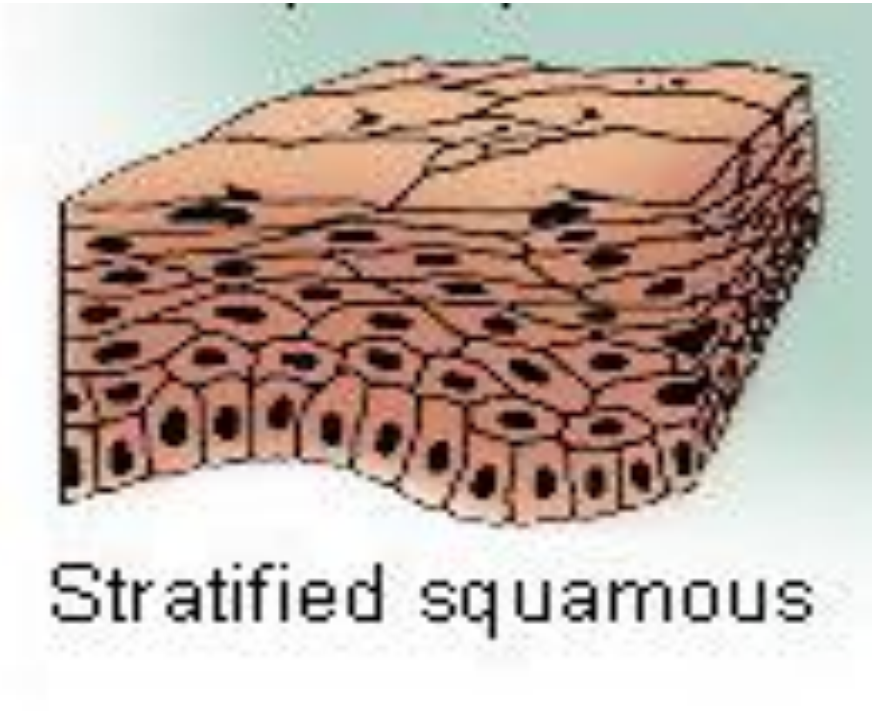




Simple Squamous Epithelium

- **Stratified Squamous Epithelium**
  – Many layers of flattened cells

Location: outer layer of skin



Stratified Squamous Epithelium

2- Cuboidal Epithelium

- **Simple Cuboidal Epithelium:**

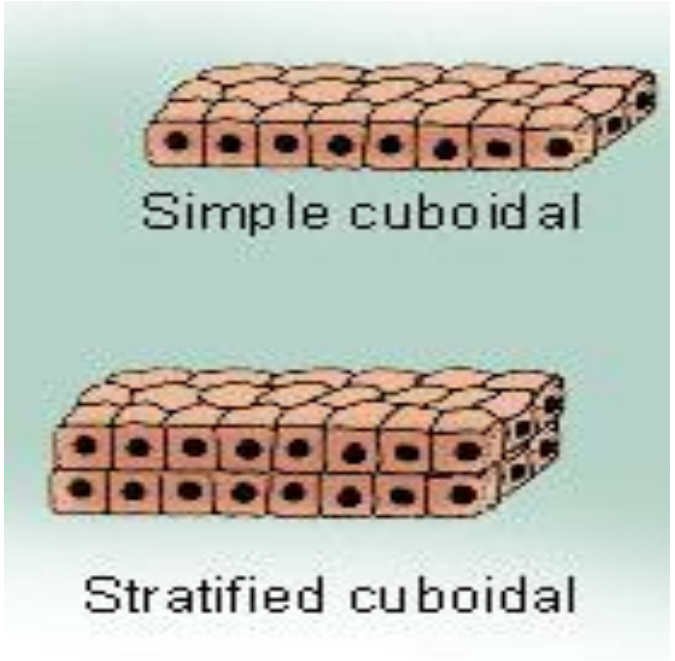
  - single layer of cube-shaped cells attached to basement membrane

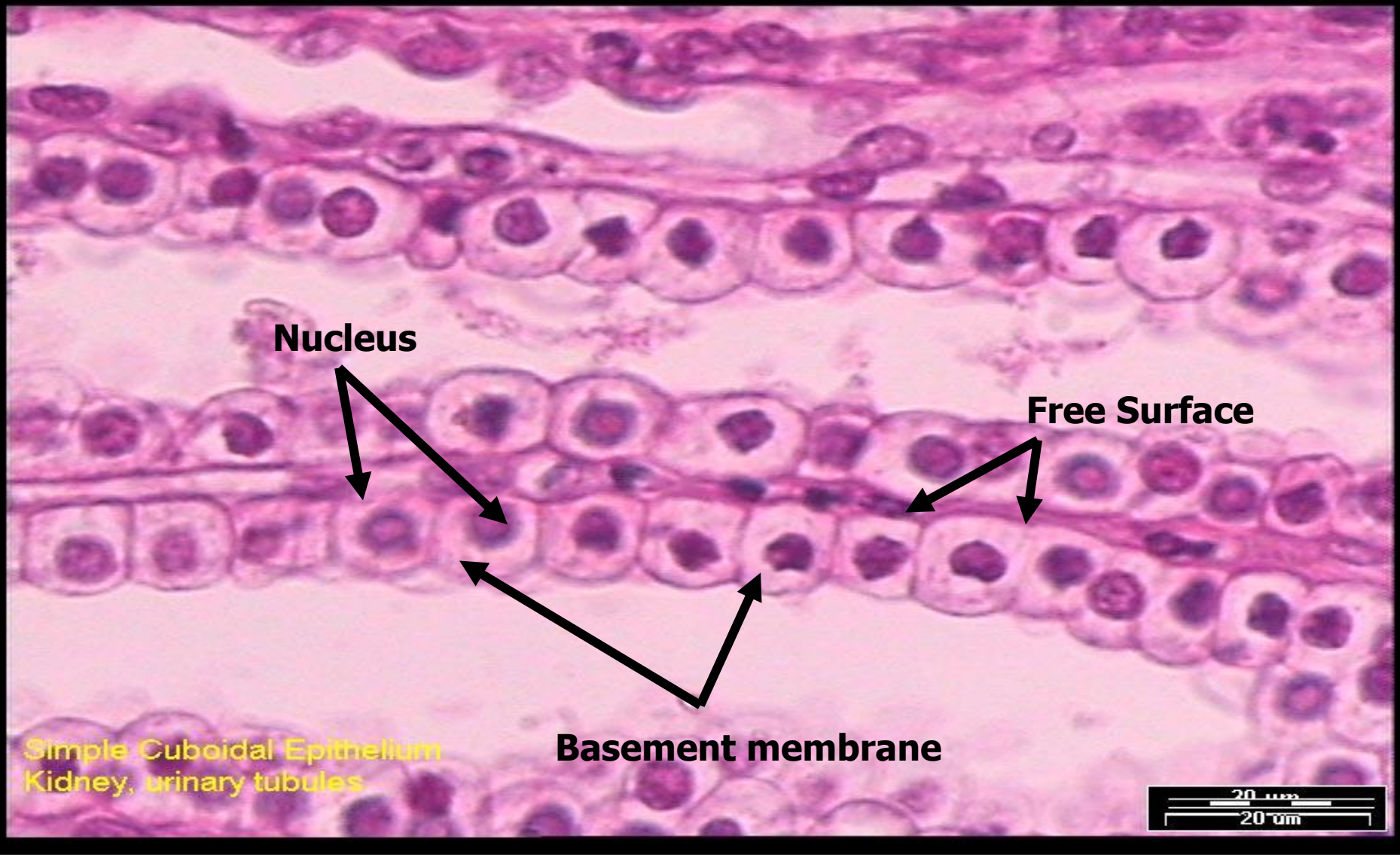
- **Stratified Cuboidal Epithelium:**

  - two or more layers of cube-shaped cells

Location

Glands, Kidney tubules





Simple Cuboidal Epithelium

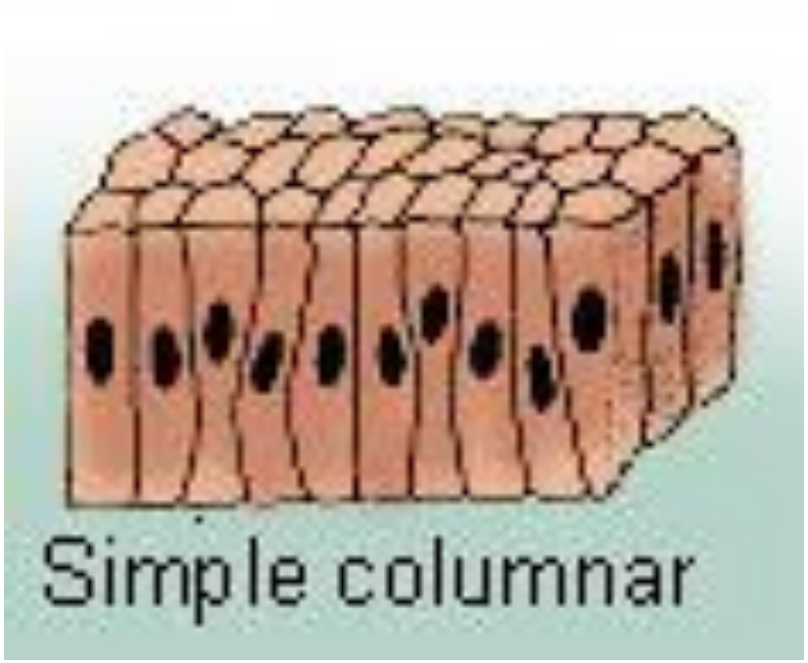
3- Columnar Epithelium

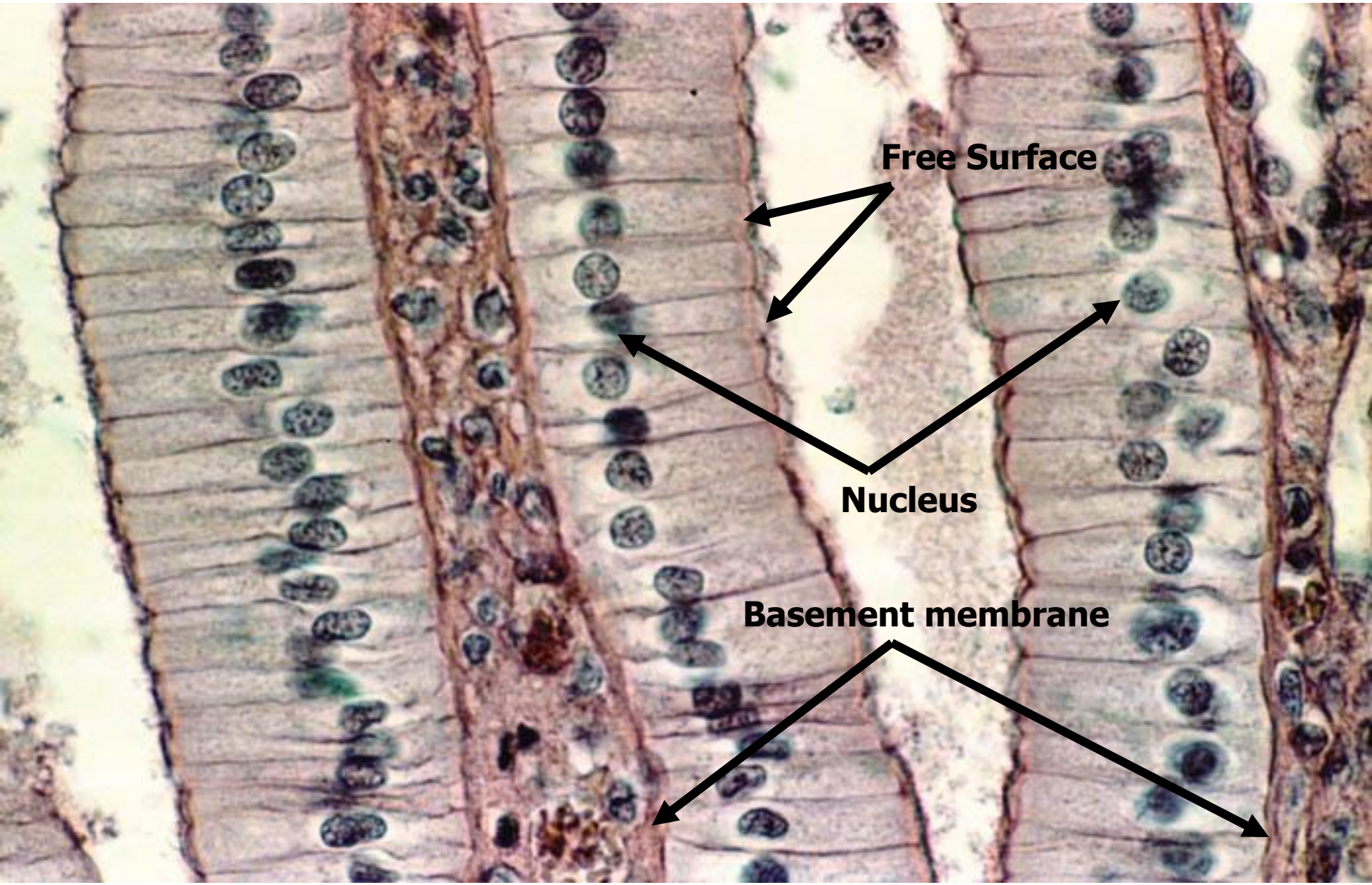
Simple Columnar Epithelium

- Composed of cells that are longer than wider
- Nucleus found in the lower half of the cell

Location

Digestive organ, Uterine tubes



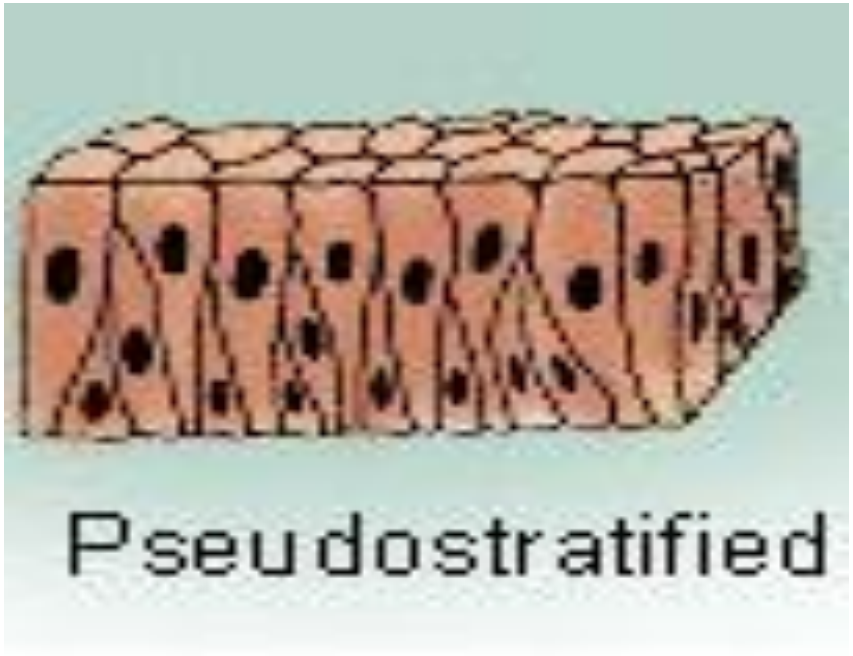


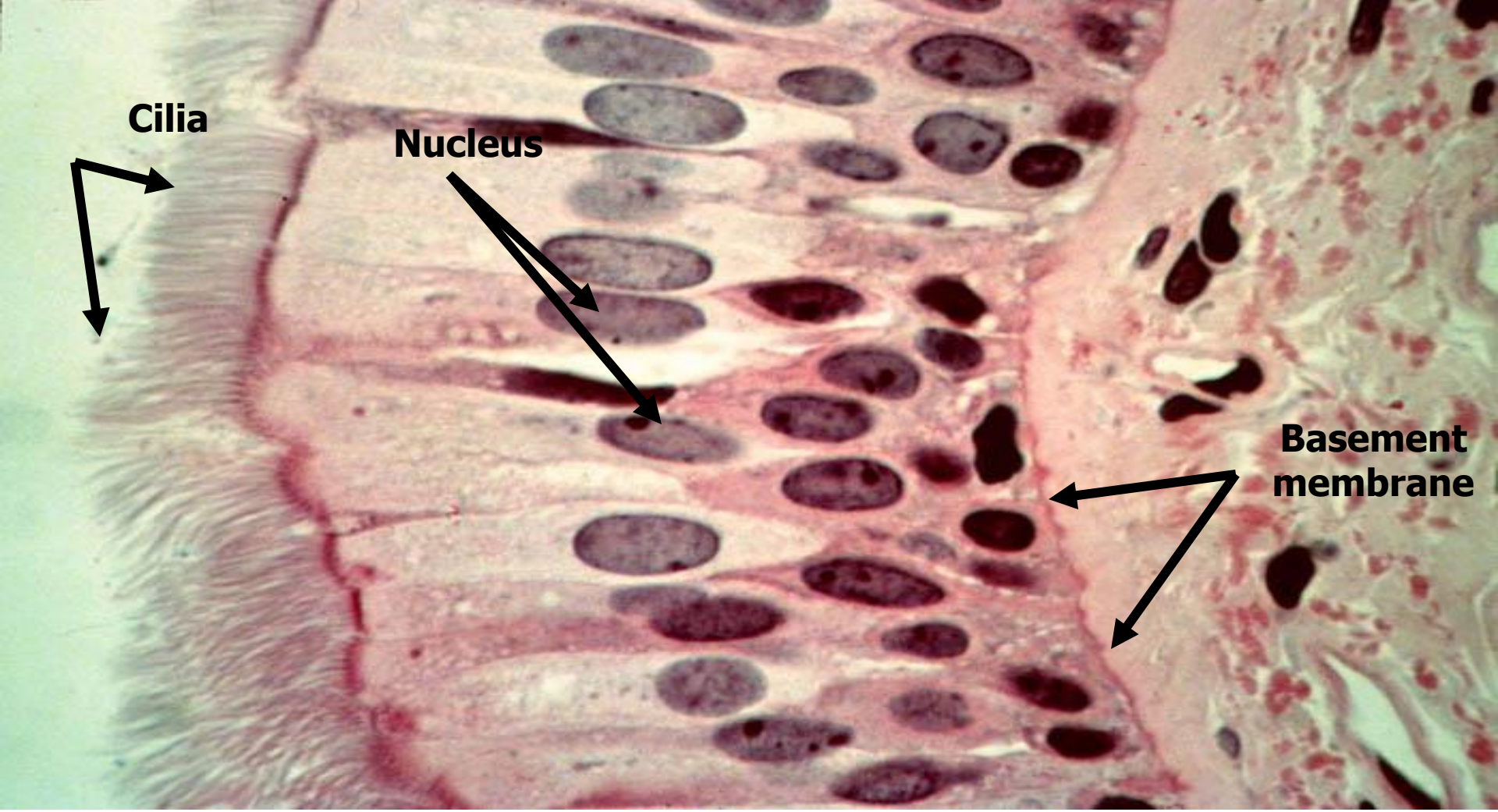
Simple Columnar Epithelium

4- Pseudostratified Epithelium

- Single cell layered
- All cell attach to the basement membrane
- Irregularly placed nuclei .

Location: respiratory tract, reproductive tract



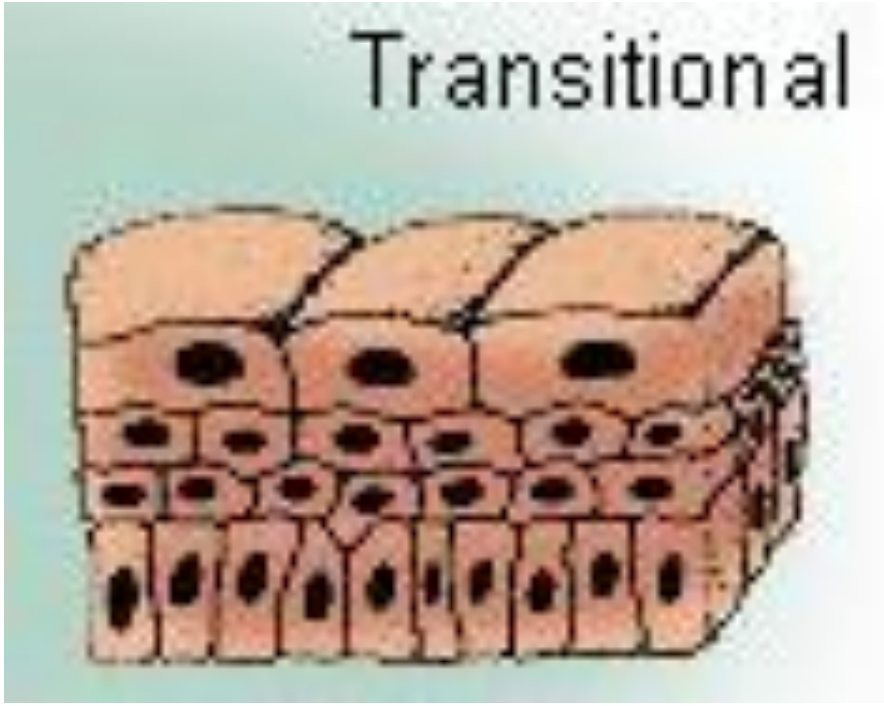


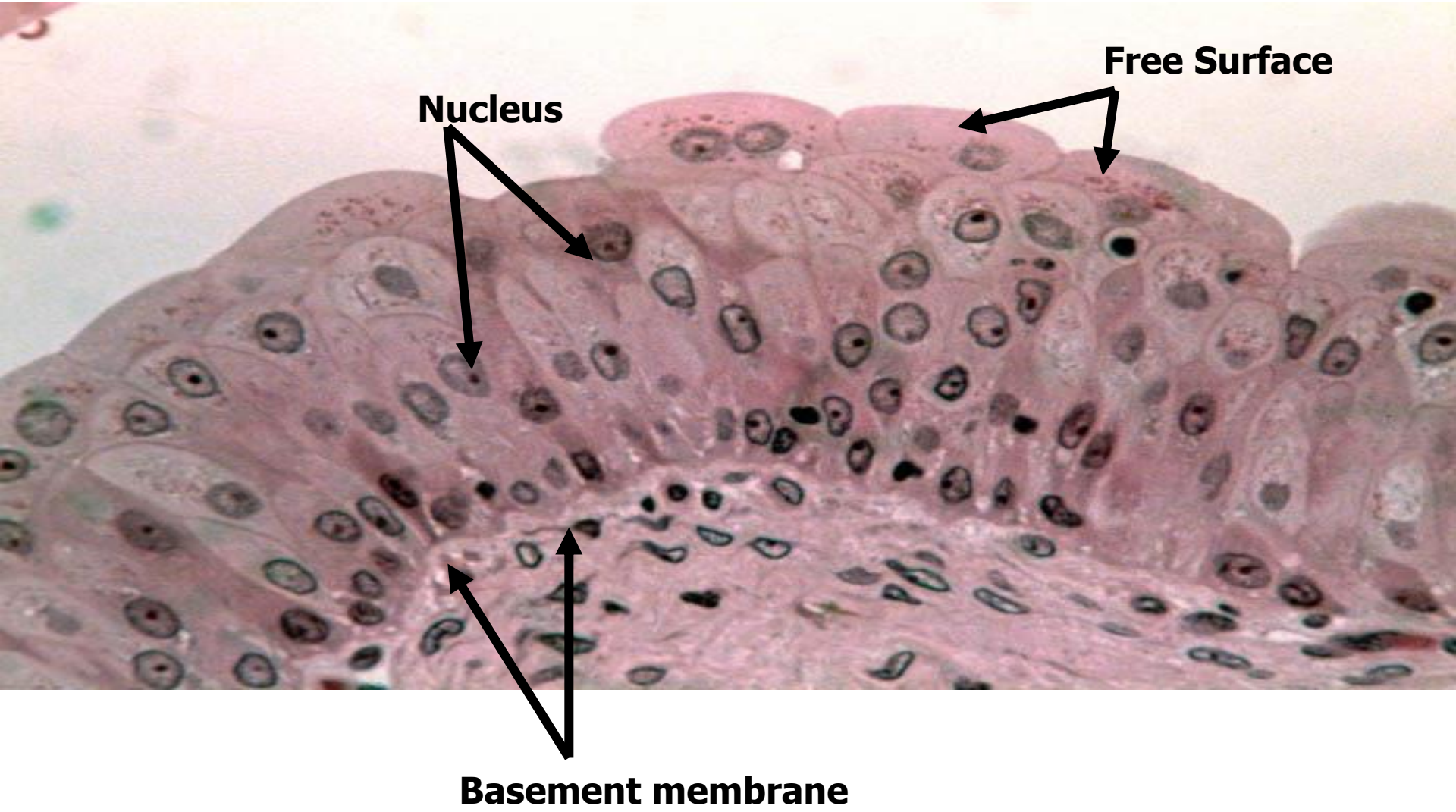
Pseudostratified Epithelium

5- Transitional Epithelium

- Characterized by domelike cells that are neither squamous nor columnar.
- The form of the cells changes

Location: urinary bladder, ureters, urethra





Transitional Epithelium

THANK YOU FOR LISTENING