Types of Animal Tissue

5th Lab 2. Stratified Epithelium

- It is made of several layers of cells.
- The top cells are flat and scaly and it may or may not be keratinised (i.e. containing a tough, resistant protein called keratin).
- Stratified epithelium is classified into the following types based on the shape of the constituent cells:

1. Stratified squamous epithelial tissue:

A. Non-Keratinised Stratified squamous epithelial tissue.

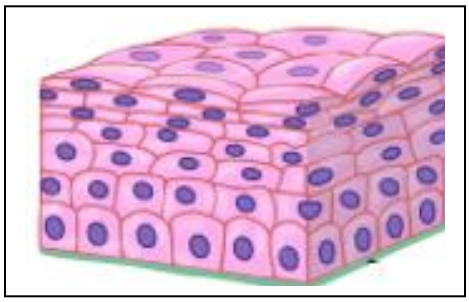
B. Keratinised Stratified squamous epithelial tissue.

2. Stratified cuboidal epithelial tissue.

3. Stratified columnar epithelial tissue.

4. Transitional epithelial tissue.

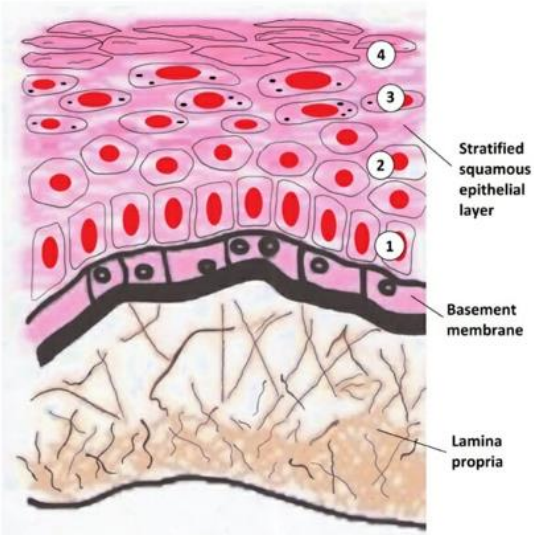
1A. Non-Keratinised Stratified squamous epithelial tissue

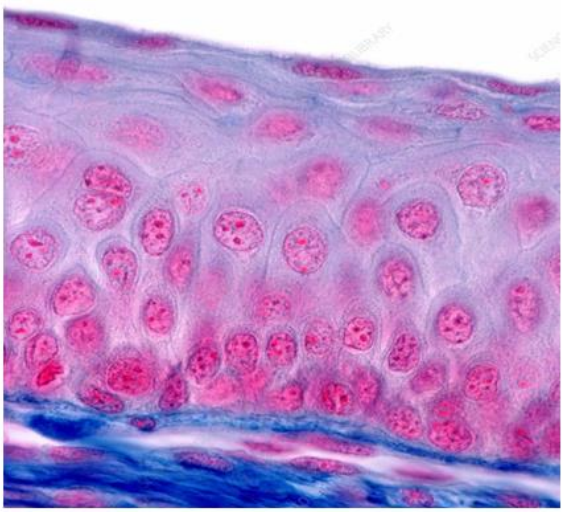


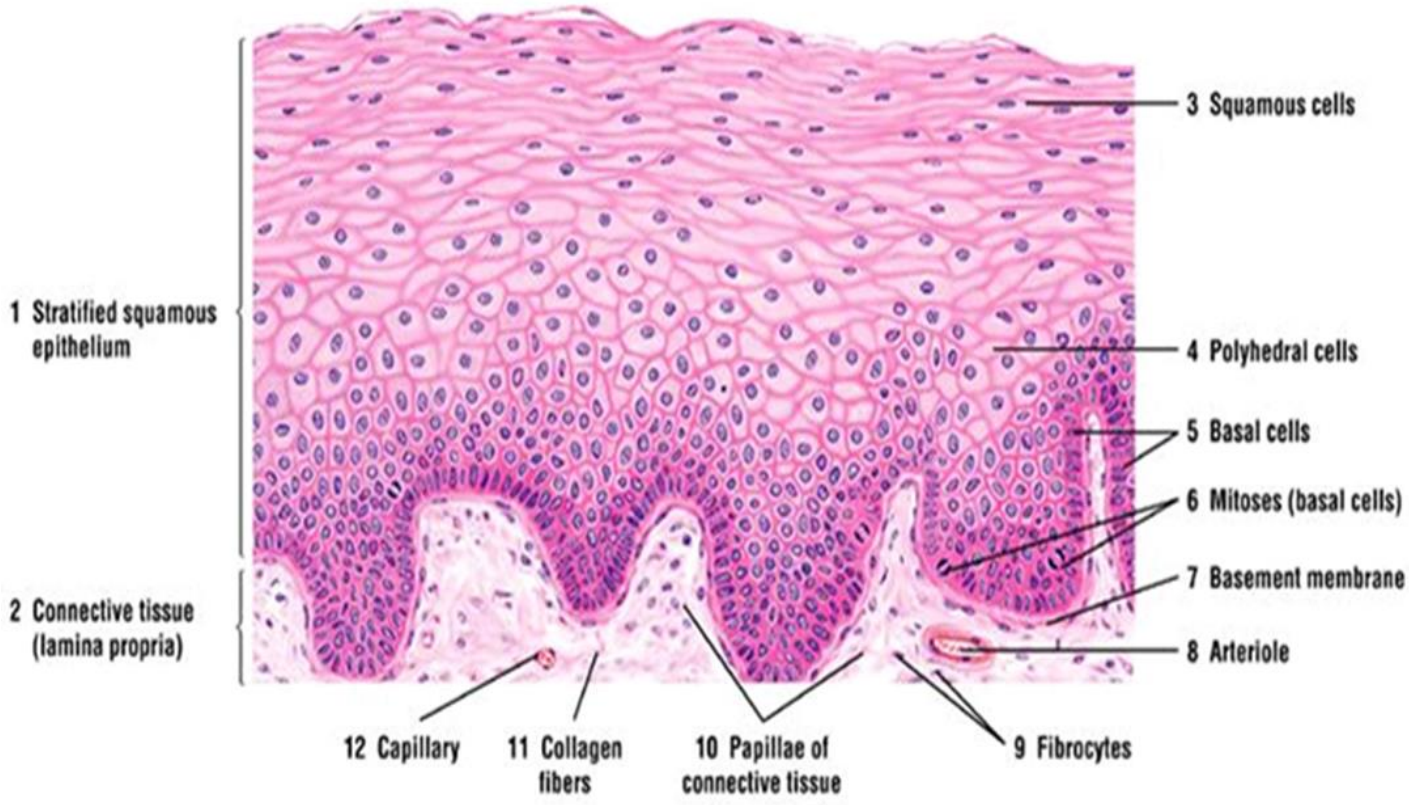
- Multiple layers of superficial squamous cells.
- Non-keratinized, surfaces must be kept

moist by bodily secretions to prevent them from drying out.

- Found: in mouth, pharynx, esophagus.
- Function: Protection against abrasion.

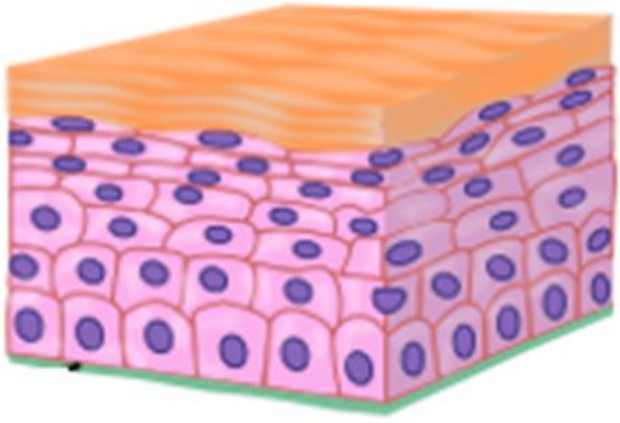


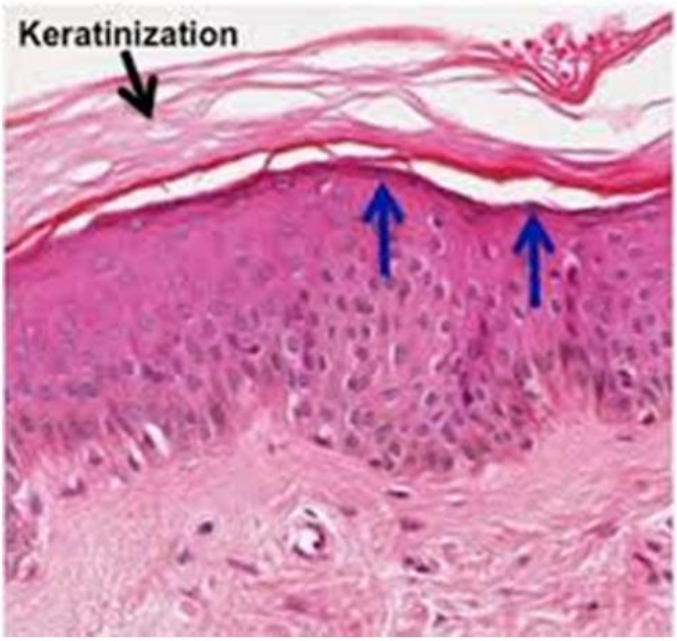


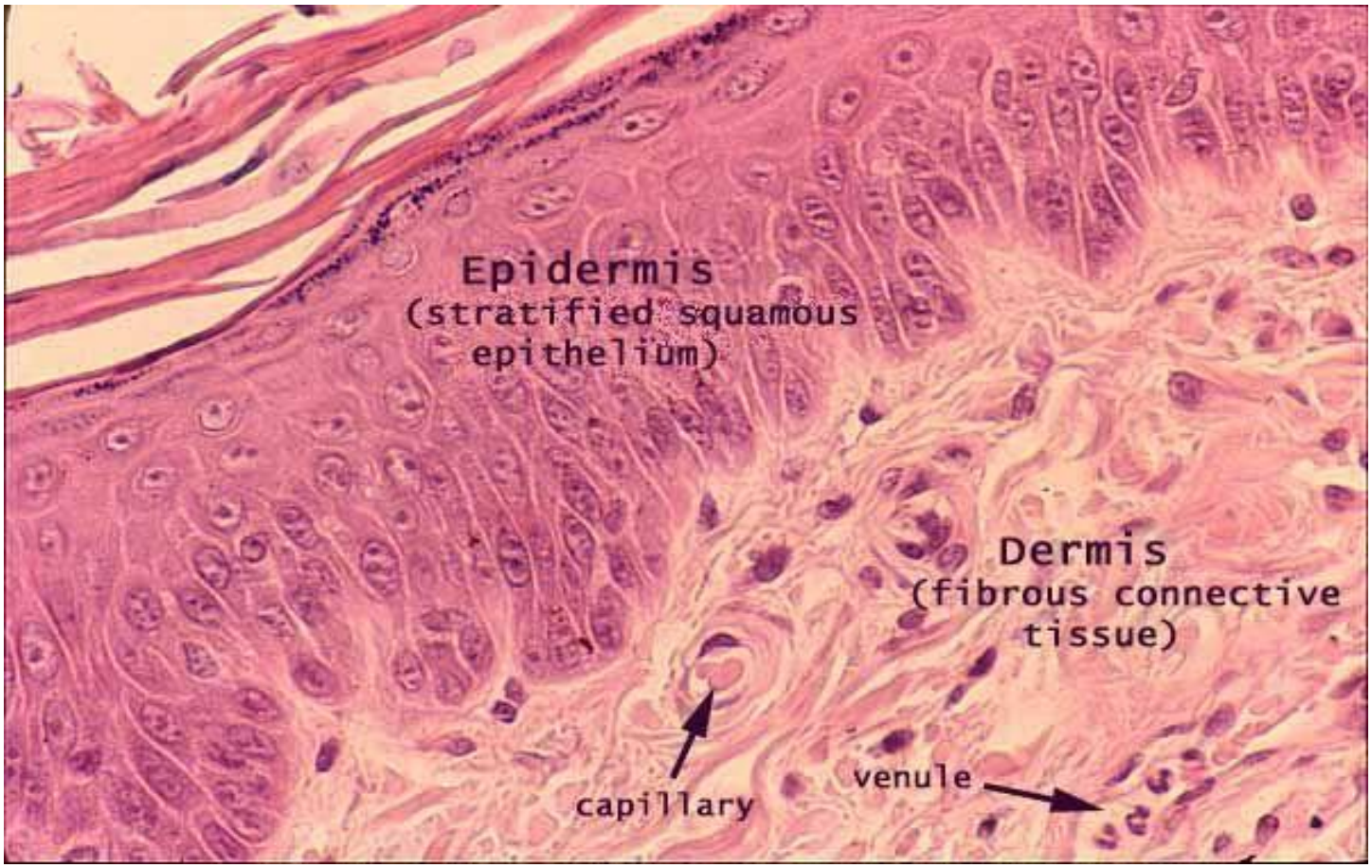


1B. Keratinised Stratified squamous epithelial tissue

- **Multiple layers of squamous cells, the apical layer of cells is dead and filled with the protein keratin.**
- **Found: in epidermis, dry areas, like hair, skin and nails.**
- **Function: Protection against abrasion.**

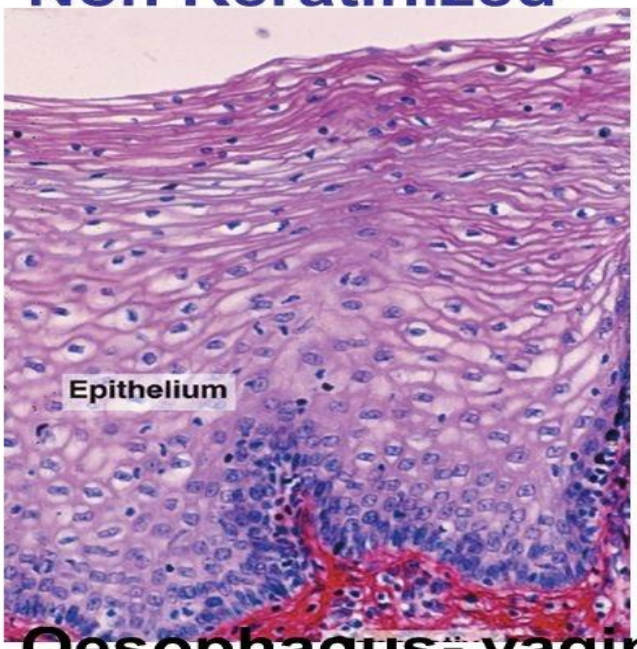






Stratified squamous epithelium

Non Keratinized



Oesophagus- vagina

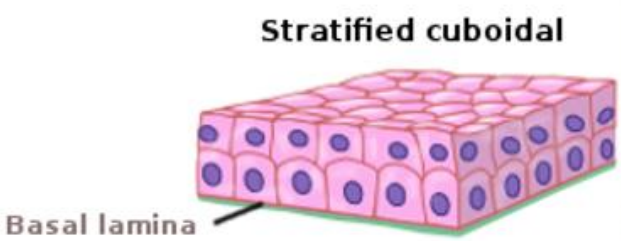
Keratinized

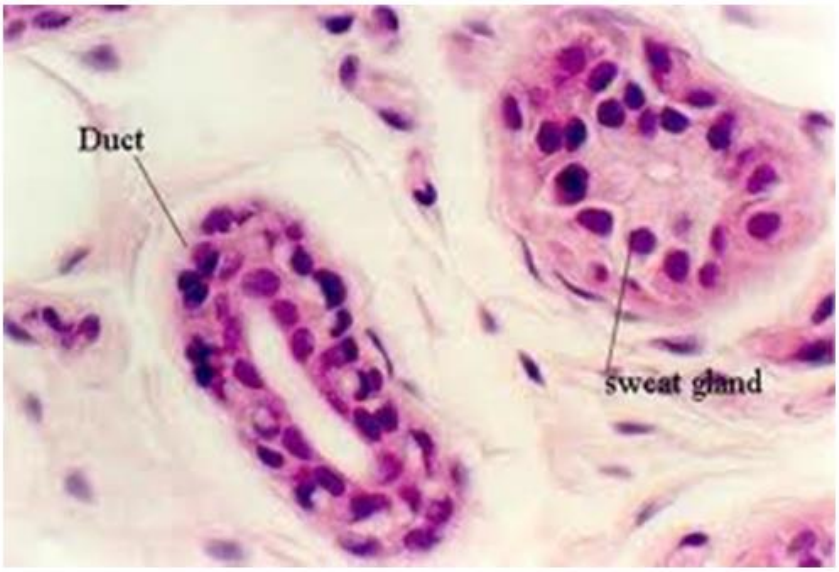
skin

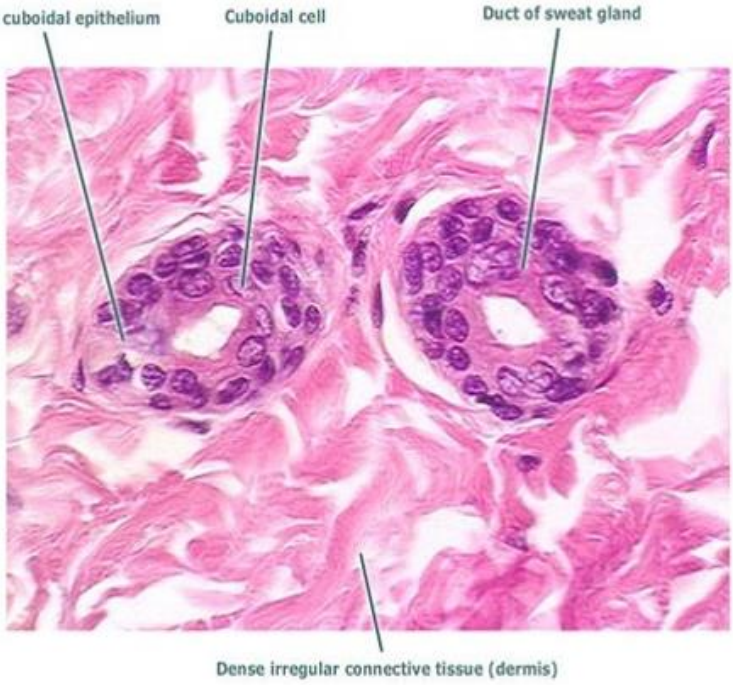
(Physical protection)

2. Stratified cuboidal epithelial tissue

- It consists of two or more layers of cuboidal cells.
- Found: in sweat gland ducts.
- Function: Secretion.

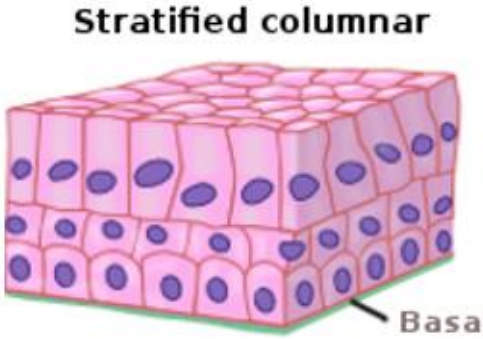


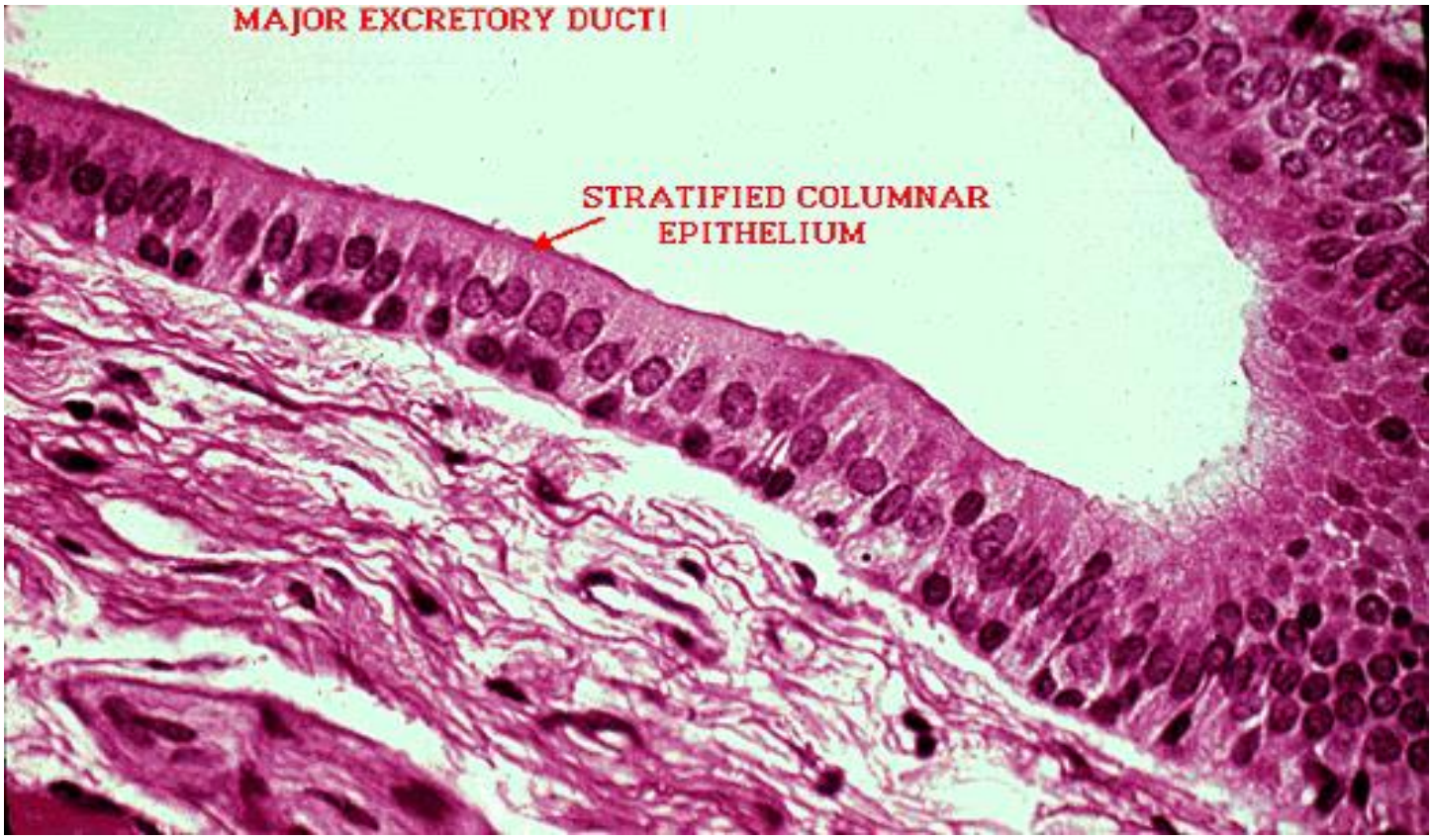




3. Stratified columnar epithelial tissue

- It consists of two or more layers of columnar cells (VERY RARE).
- Found: in membranous male urethra and salivary glands.
- Function: Secretion.

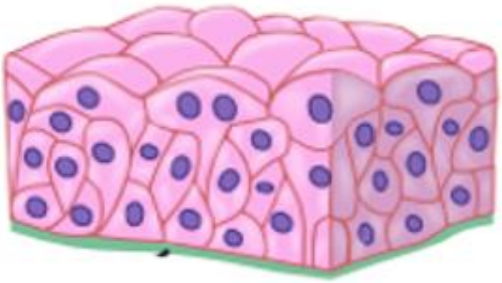


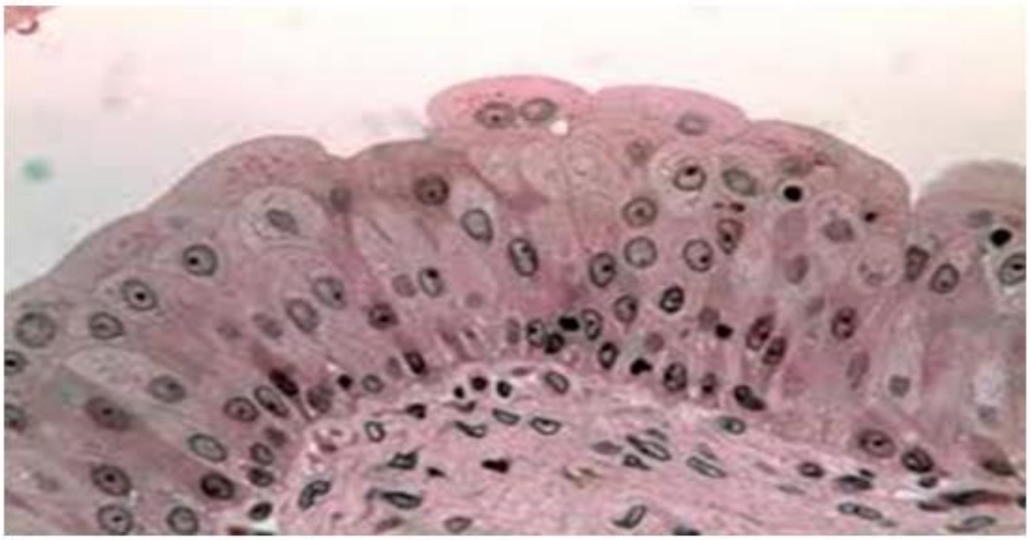


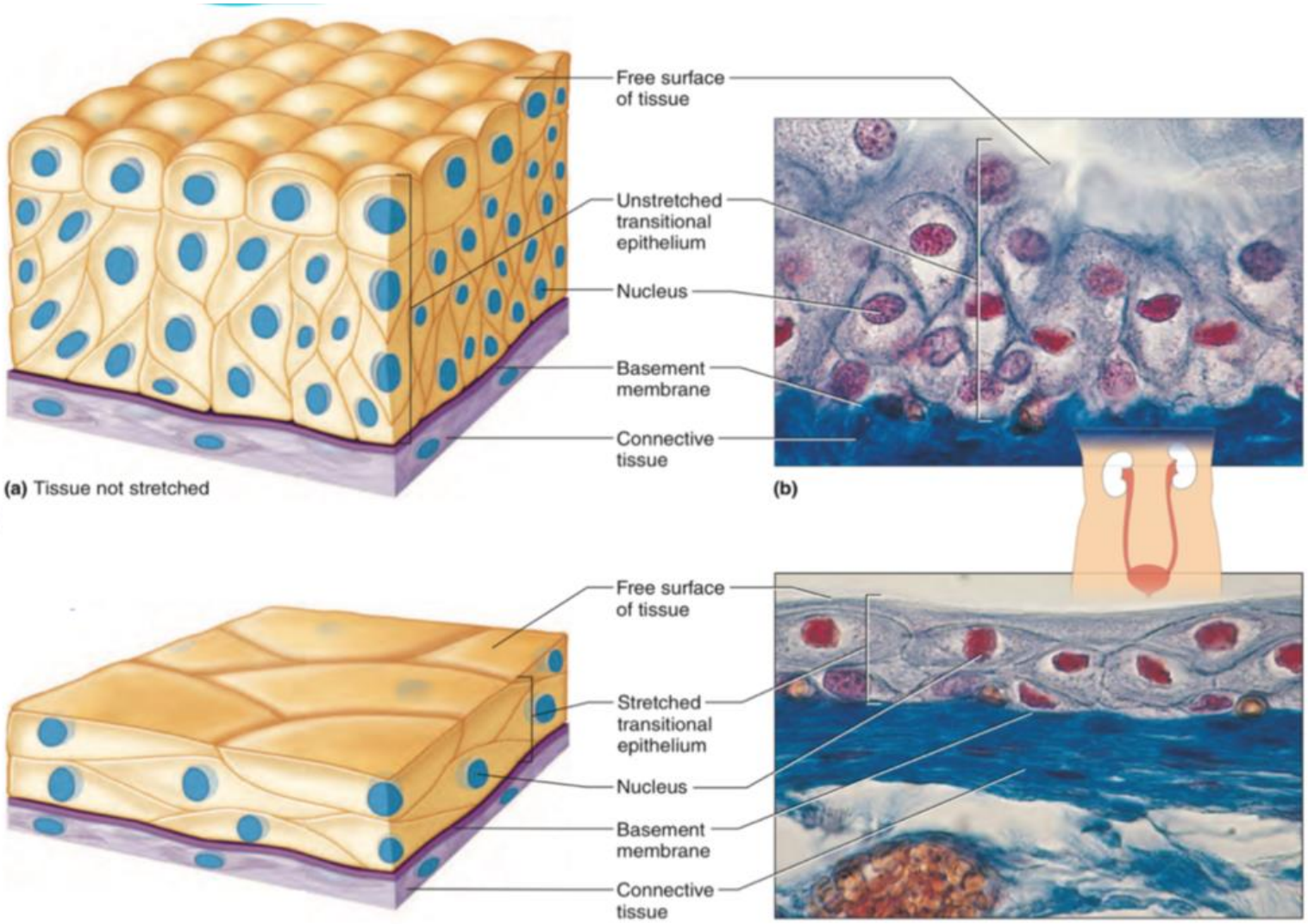
4. Transitional epithelial tissue

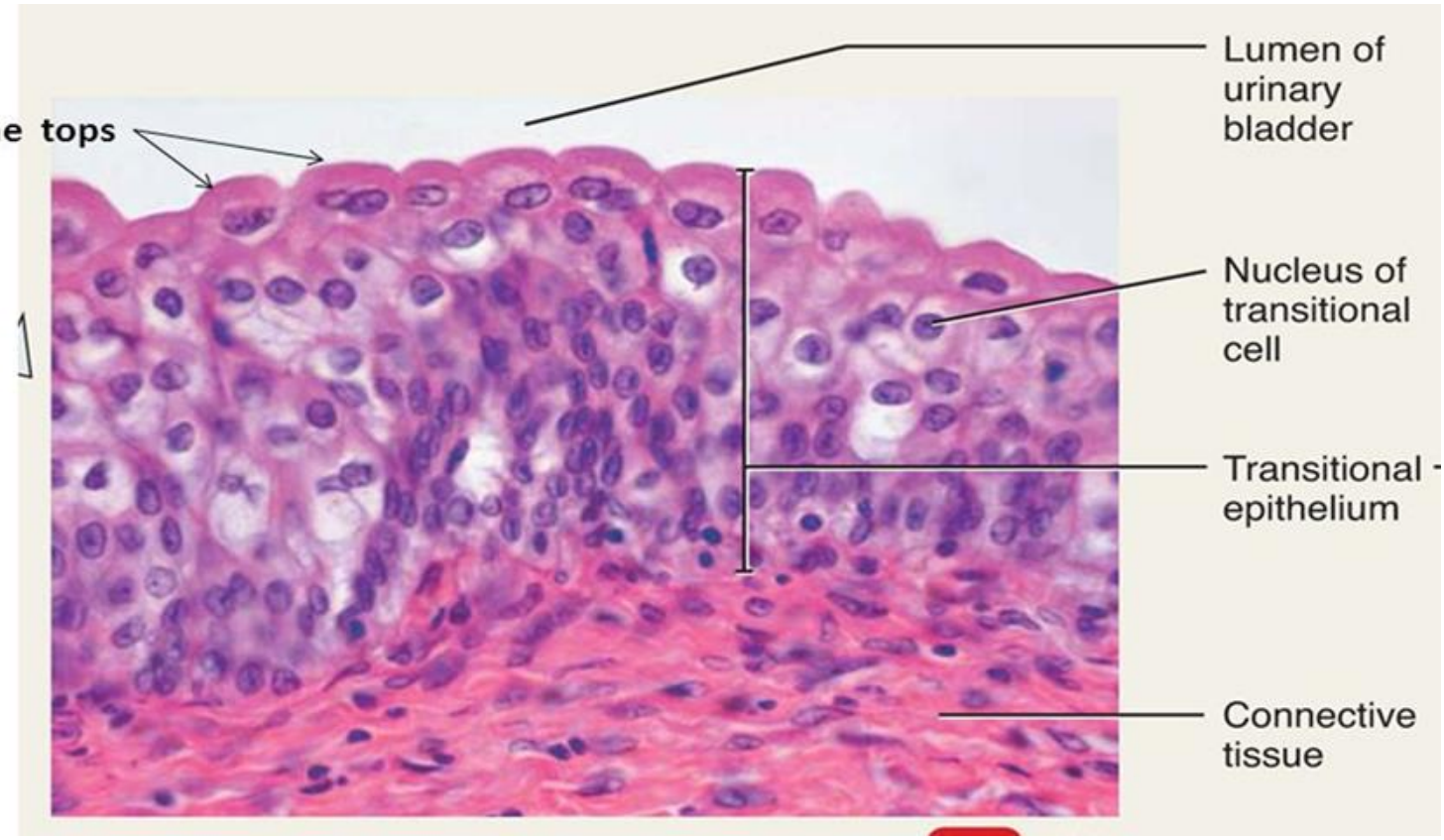
- **The cells in the superficial layers are not truly squamous, cuboidal or columnar.**
- **These cells are large and rounded or conical.**

- **Found: in the urinary bladder.**
- **Function: The epithelium allows distention.**








Dome tops
Lumen of urinary bladder
Nucleus of transitional cell
Transitional epithelium
Connective tissue