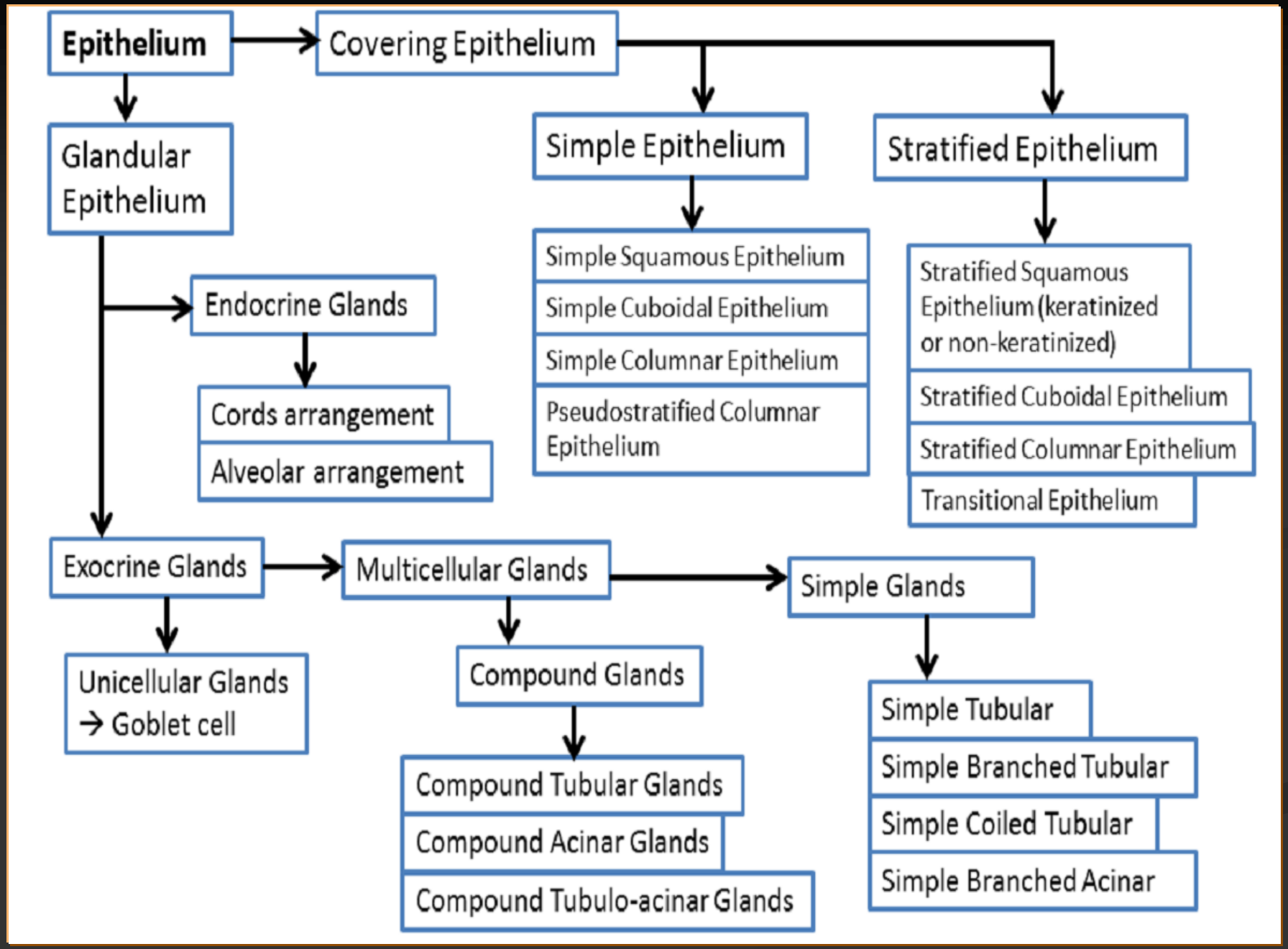
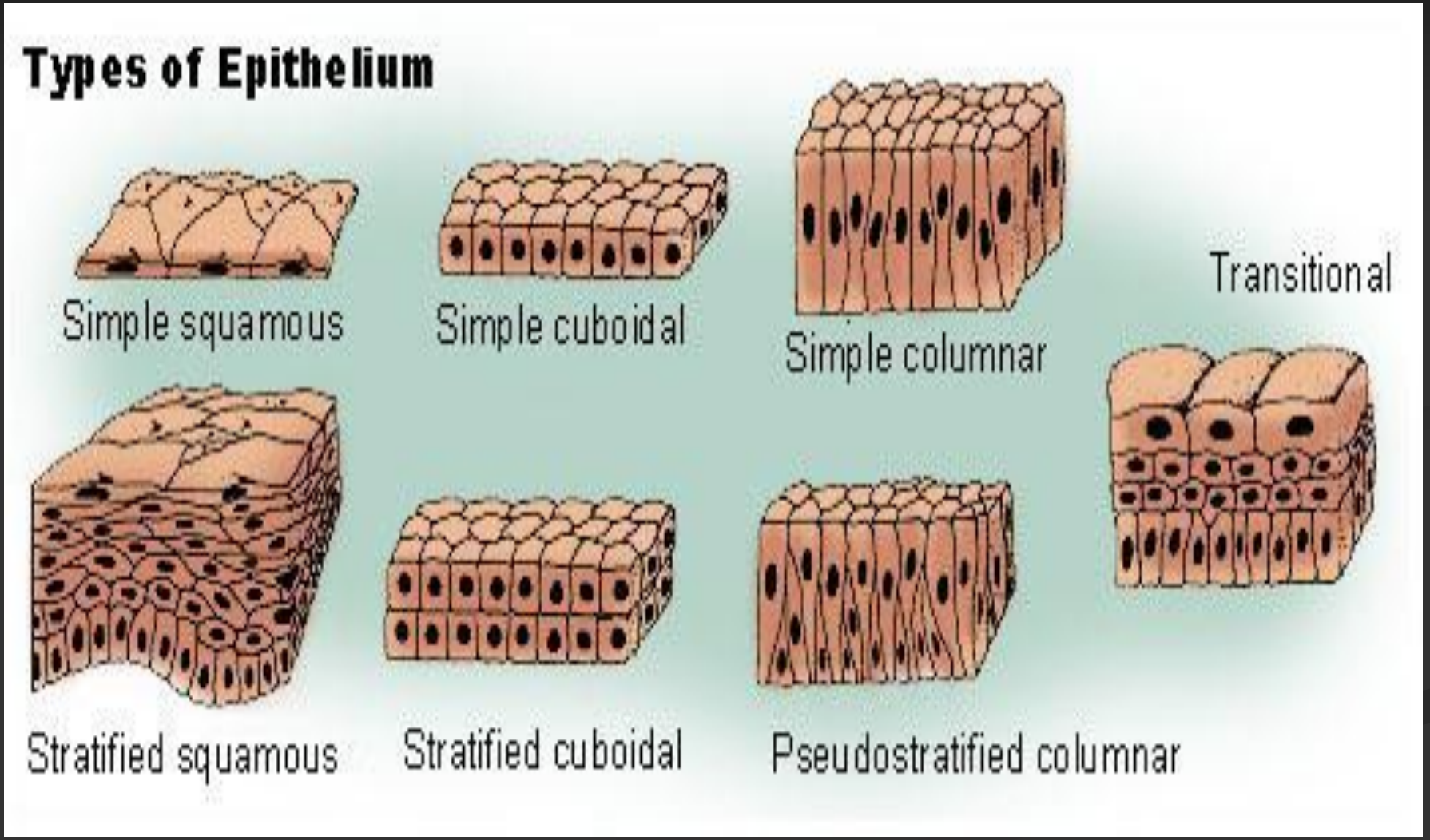
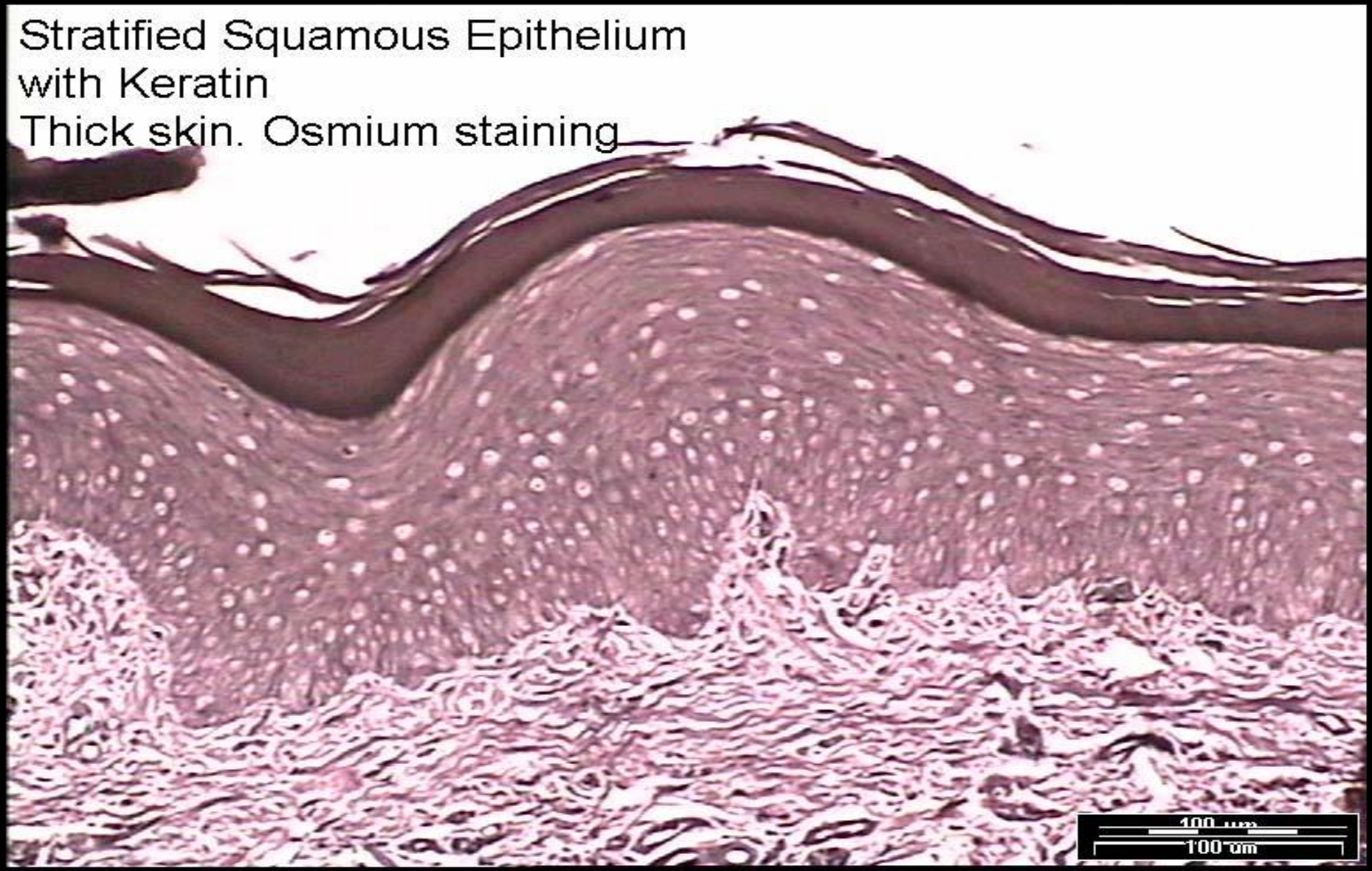
Medical Biology


Epithelium
Covering Epithelium
Glandular Epithelium
Simple Epithelium
Stratified Epithelium
Simple Squamous Epithelium
Simple Cuboidal Epithelium
Simple Columnar Epithelium
Pseudostratified Columnar Epithelium
Stratified Squamous Epithelium (keratinized or non-keratinized)
Stratified Cuboidal Epithelium
Stratified Columnar Epithelium
Transitional Epithelium
Endocrine Glands
Cords arrangement
Alveolar arrangement
Exocrine Glands
Multicellular Glands
Simple Glands
Unicellular Glands → Goblet cell
Compound Glands
Compound Tubular Glands
Compound Acinar Glands
Compound Tubulo-acinar Glands
Simple Tubular
Simple Branched Tubular
Simple Coiled Tubular
Simple Branched Acinar

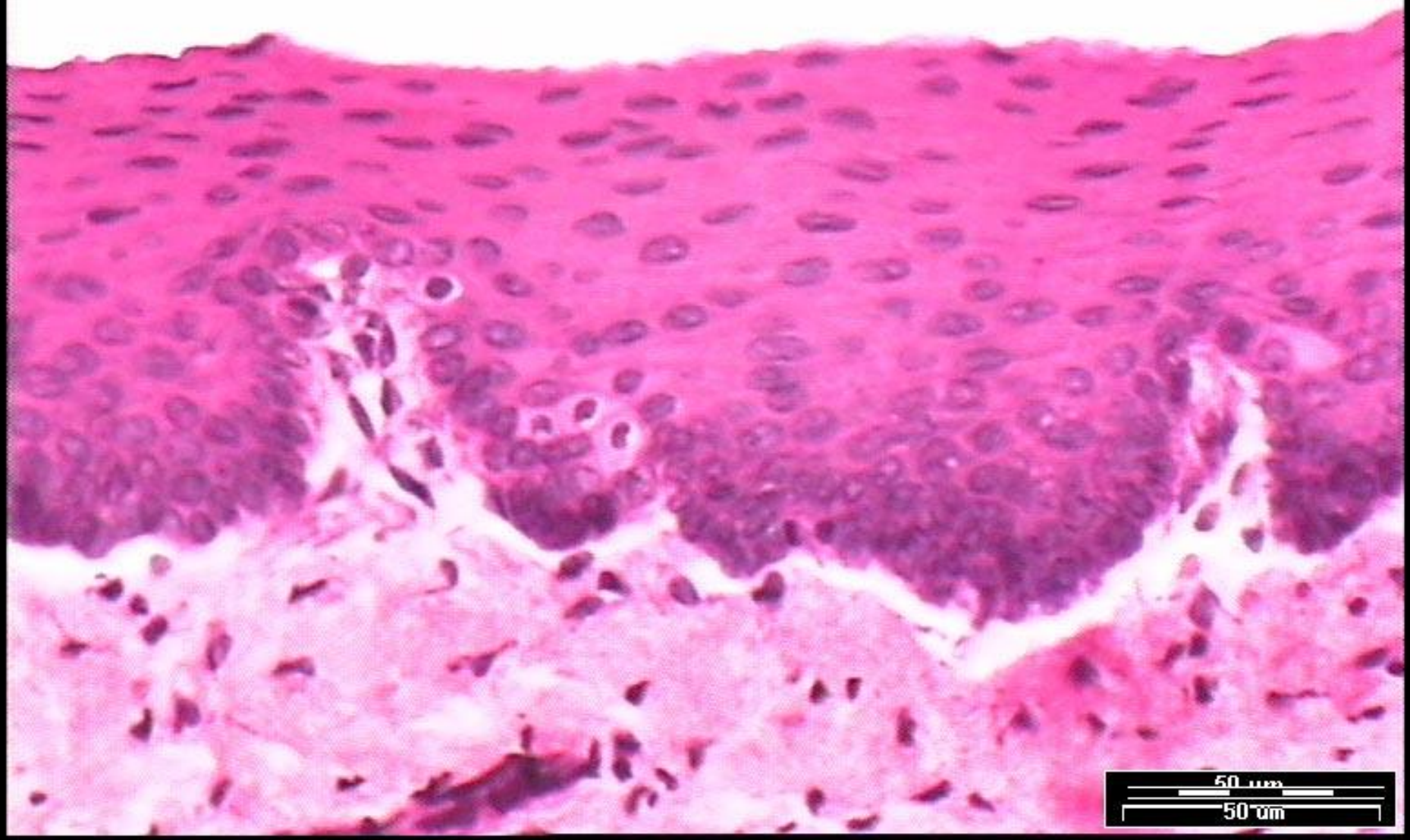
Stratified epithelium:



Stratified epithelium:



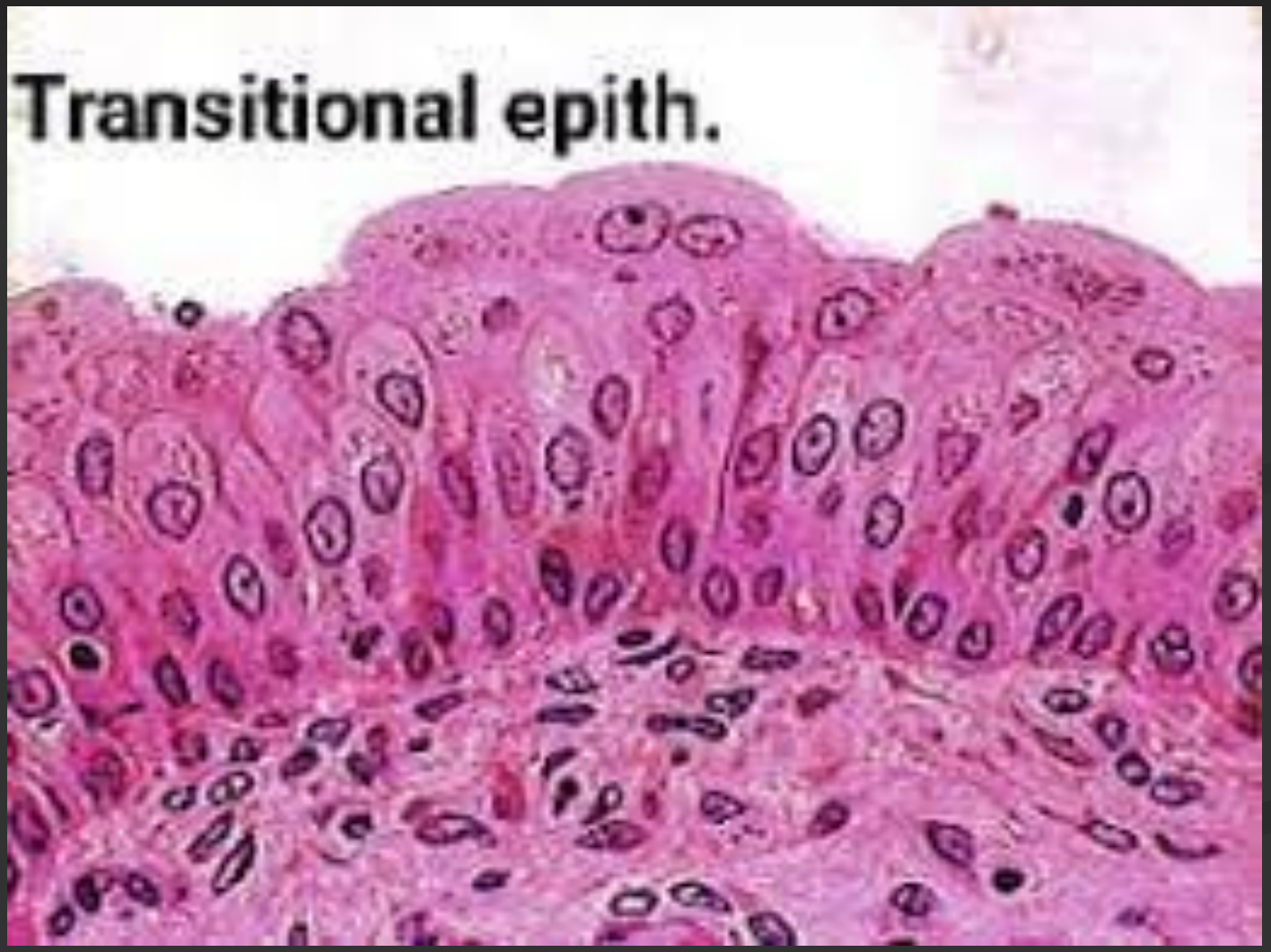
Stratified Squamous Epithelium
Tongue



Stratified Cuboidal Epithelium

Stratified Columnar Epithelium

transitional epithelium:

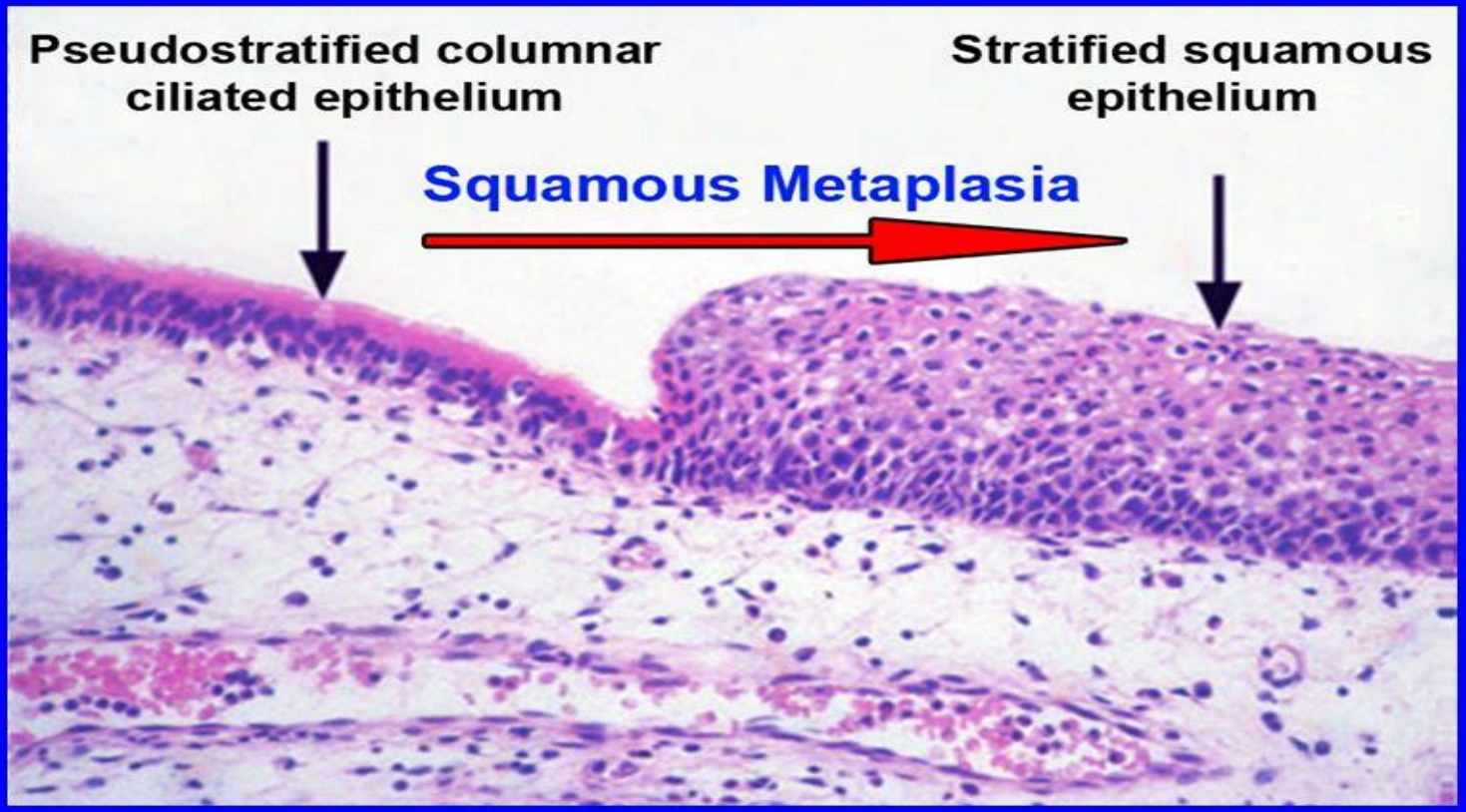


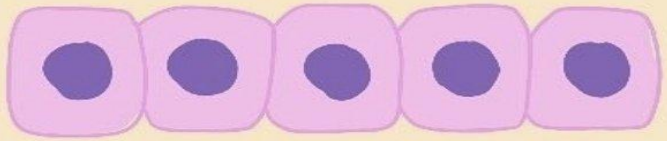
Medical notes:

In cases of chronic vitamin A deficiency, epithelial tissues found in bronchi and urinary bladder may gradually be replaced by stratified squamous epithelium due to decrease in mucus-secreting elements, and keratinization.

Clinical Correlation: Epithelial Metaplasia

Squamous Metaplasia

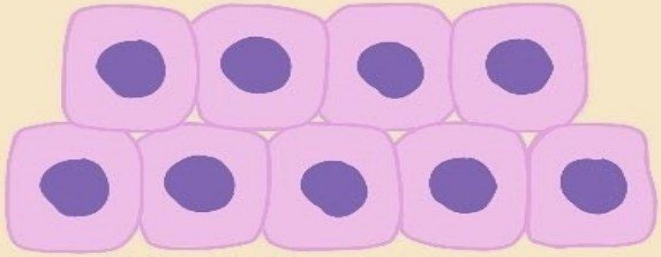




→ NORMAL

→ ATROFIA

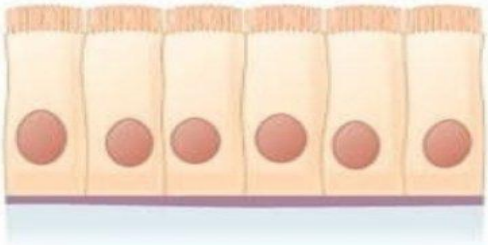
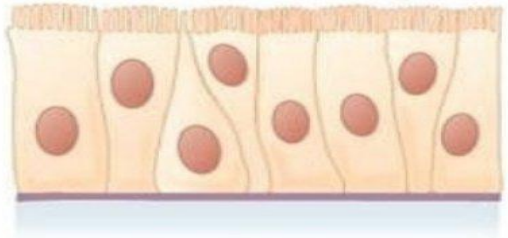
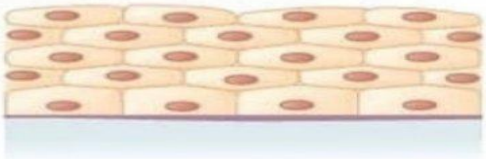
→ HIPERTROFIA

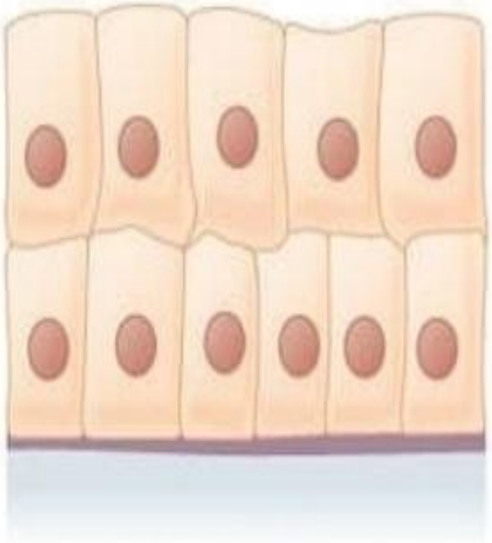
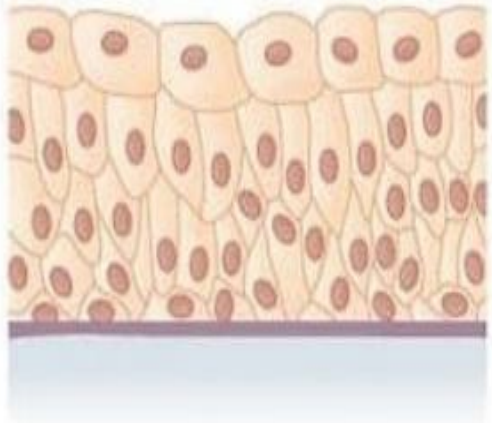


→ HIPERPLASIA

→ METAPLASIA

→ DISPLASIA

Cells	Location	Function
Simple squamous epithelium 	Air sacs of lungs and the lining of the heart, blood vessels, and lymphatic vessels	Allows materials to pass through by diffusion and filtration, and secretes lubricating substance
Simple cuboidal epithelium 	In ducts and secretory portions of small glands and in kidney tubules	Secretes and absorbs
Simple columnar epithelium 	Ciliated tissues are in bronchi, uterine tubes, and uterus; smooth (nonciliated tissues) are in the digestive tract, bladder	Absorbs; it also secretes mucous and enzymes
Pseudostratified columnar epithelium 	Ciliated tissue lines the trachea and much of the upper respiratory tract	Secretes mucus; ciliated tissue moves mucus
Stratified squamous epithelium 	Lines the esophagus, mouth, and vagina	Protects against abrasion
Stratified cuboidal epithelium 	Sweat glands, salivary glands, and the mammary glands	Protective tissue

Stratified columnar epithelium 	The male urethra and the ducts of some glands	Secretes and protects
Transitional epithelium 	Lines the bladder, uretha, and the ureters	Allows the urinary organs to expand and stretch

Glandular epithelium:

Glands are classified into three major groups on the basis of the method of distribution of their secretory products:

exocrine glands

endocrine glands

mixed glands

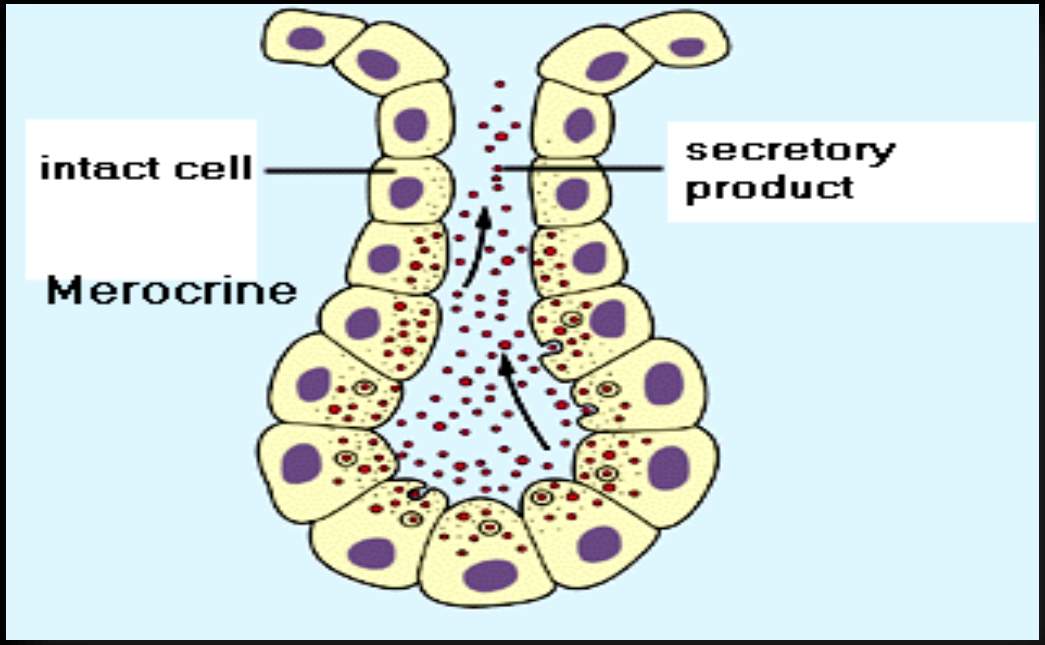
Exocrine glands:

Classification of exocrine glands:

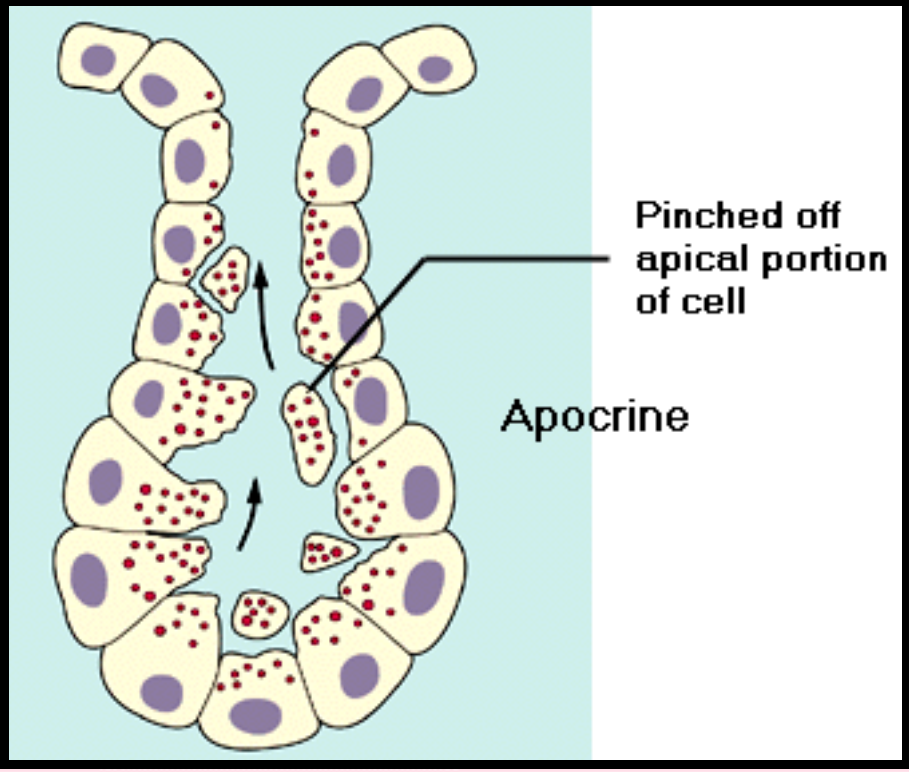
1. Exocrine Glands Classified by Mechanisms of Secretion:

- Exocrine glands classified according to the mode or way in which the secretory products leave the cell into:

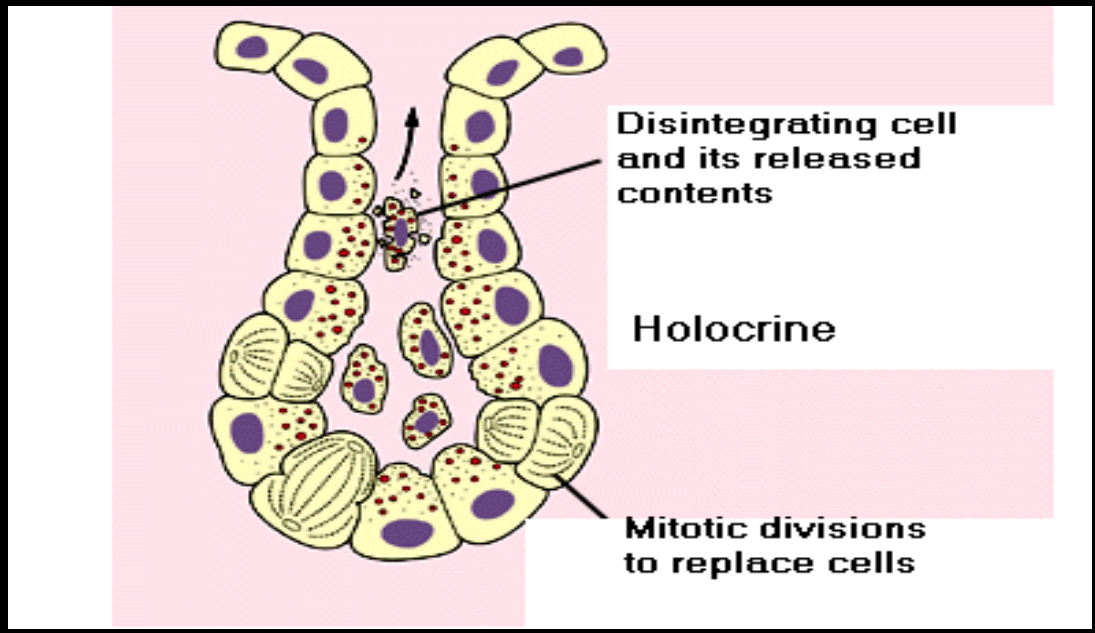
(a) Merocrine (or eccrine) secretion:

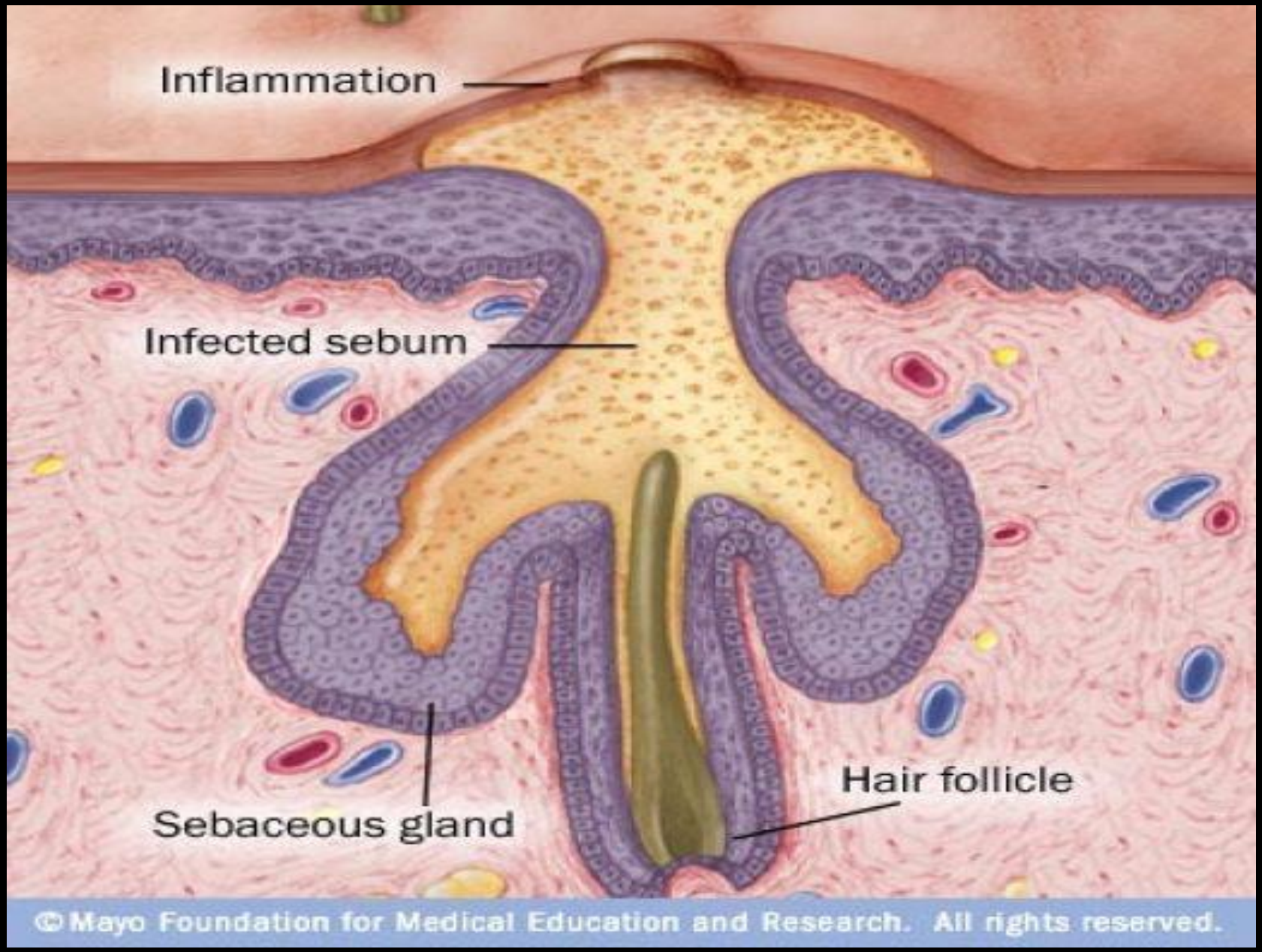


(b) Apocrine secretion:



(c) Holocrine secretion:






Thank you