

HISTOLOGY PRACTICAL LECTURE - 15 -

RESPIRATORY SYSTEM

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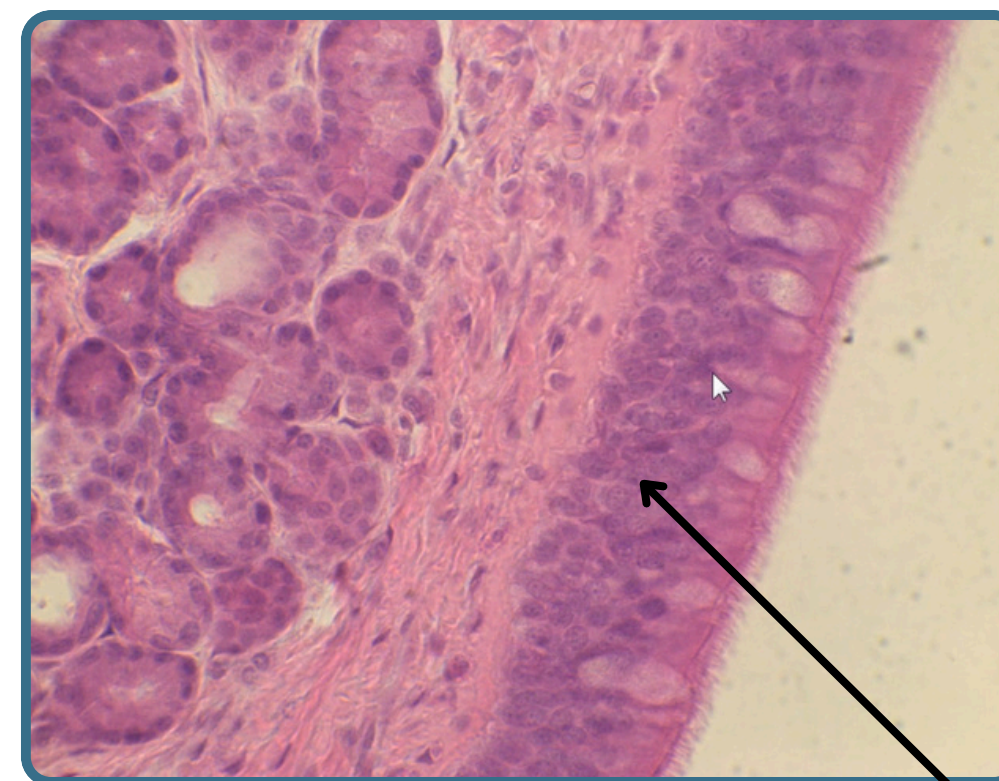


Section In The Olfactory Epithelium

Bone Of Superior Concha



Olfactory Epithelium
thick pseudostratified columnar
epithelium with three types of
cells



Olfactory Epithelium
thick pseudostratified columnar
epithelium with three types of
cells



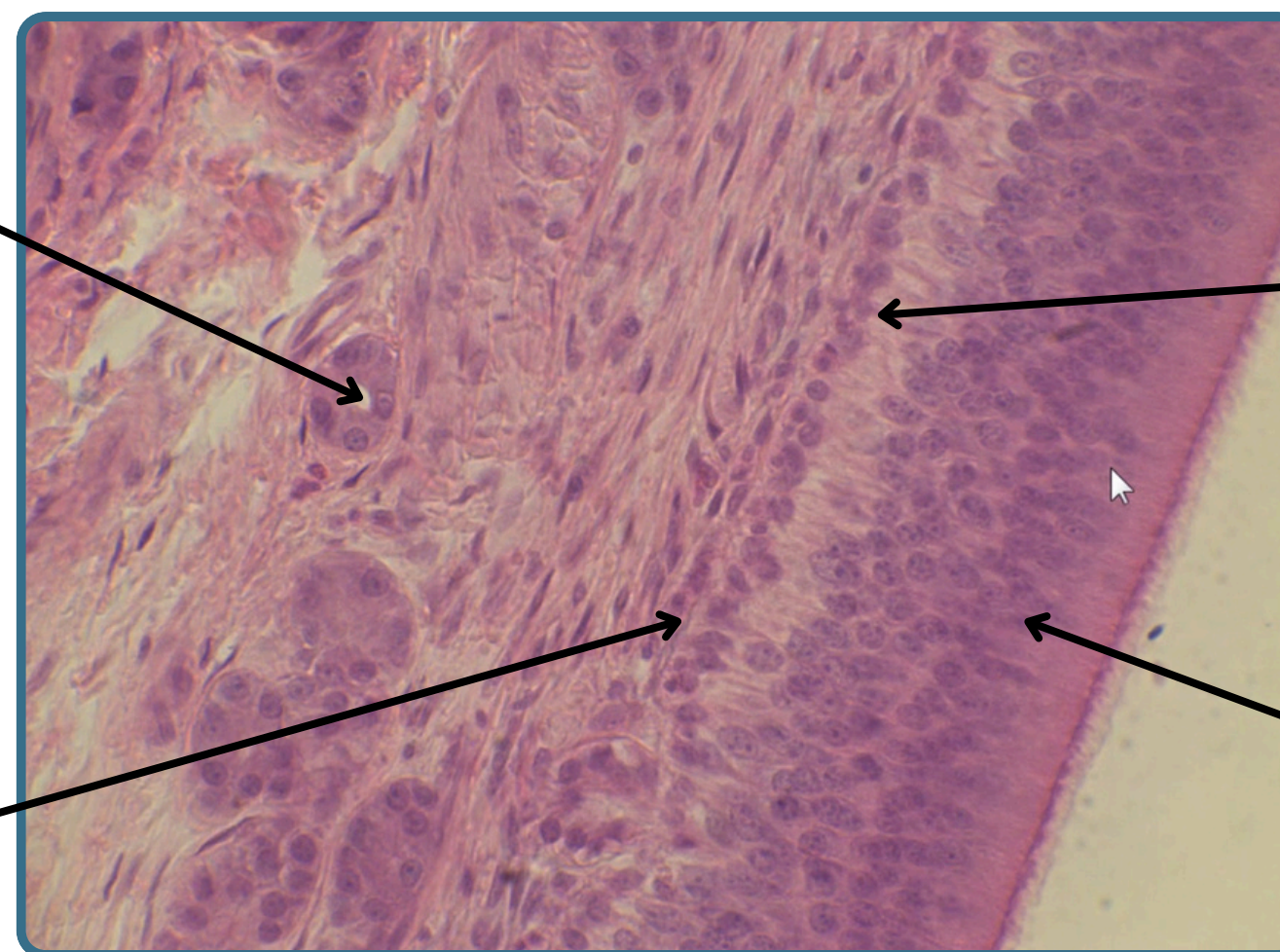
Section In The Olfactory Epithelium

Bowman's gland

Found in the **lamina propria**
Their secretion is the fluid environment Surround the cilia

Supporting Cells

these cells columnar with broad apexes and narrower bases



Basal Cell

has small spherical cone shape, these cells form a single layer at the base of epithelium they are stem cells for are for other types

olfactory cells

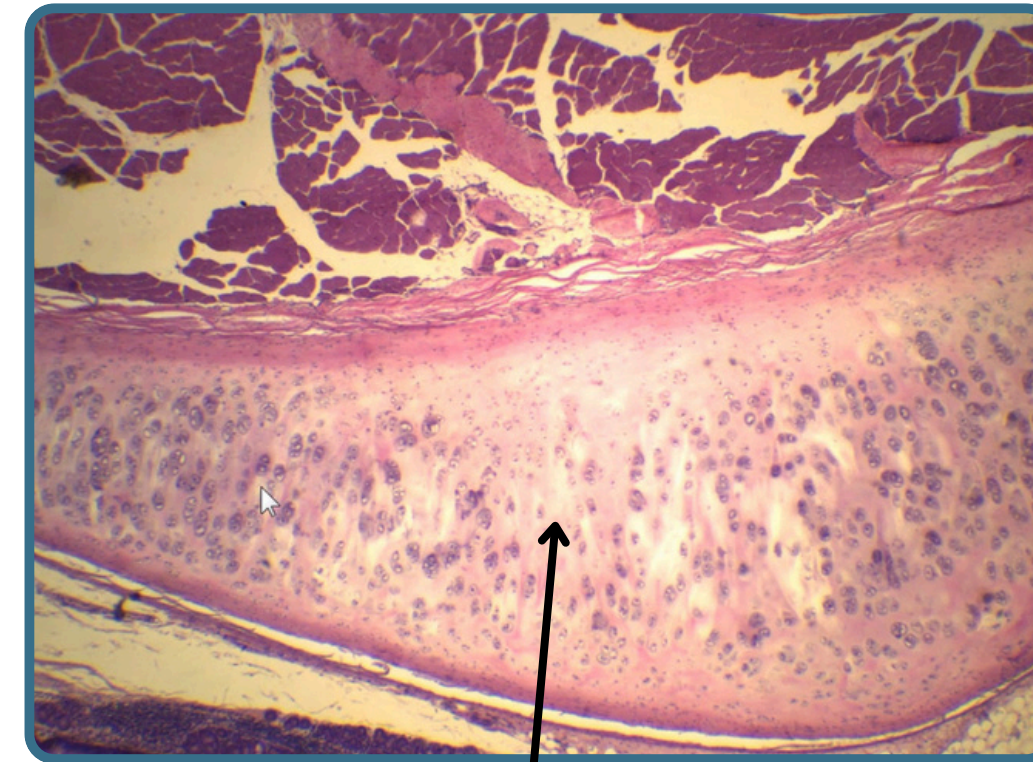
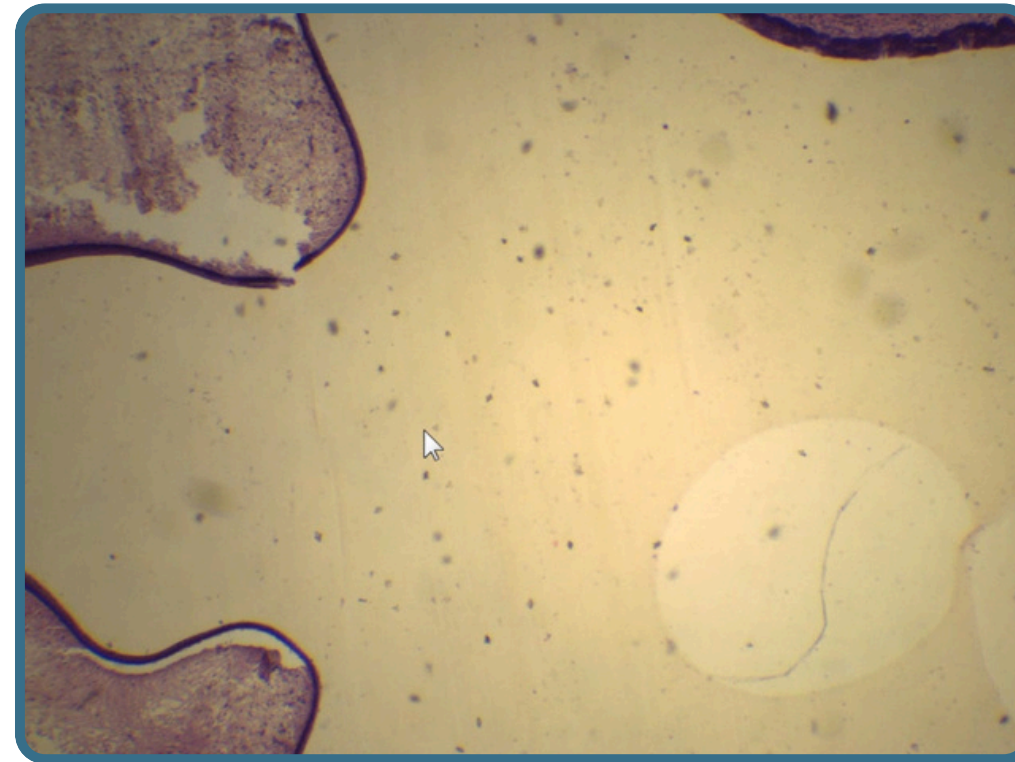
these cells is bipolar neurons their nuclei form an irregular row near the middle of the epithelium (olfactory neurons) each cell has apex with dendrites& non motile cilia and from the basal end an axon extends



Respiratory System



Section In The Larynx

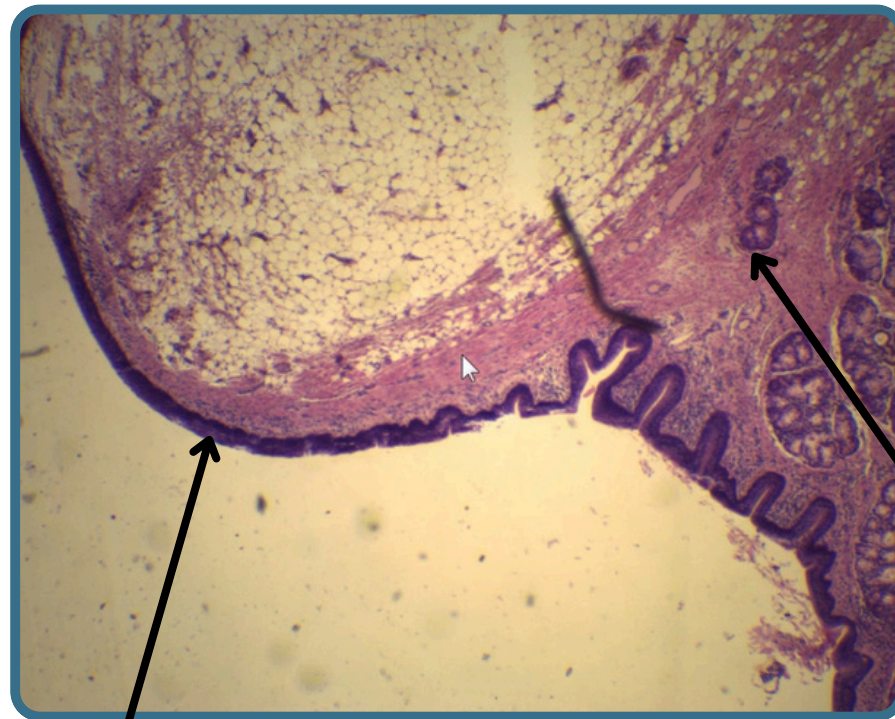


Hyaline Cartilage

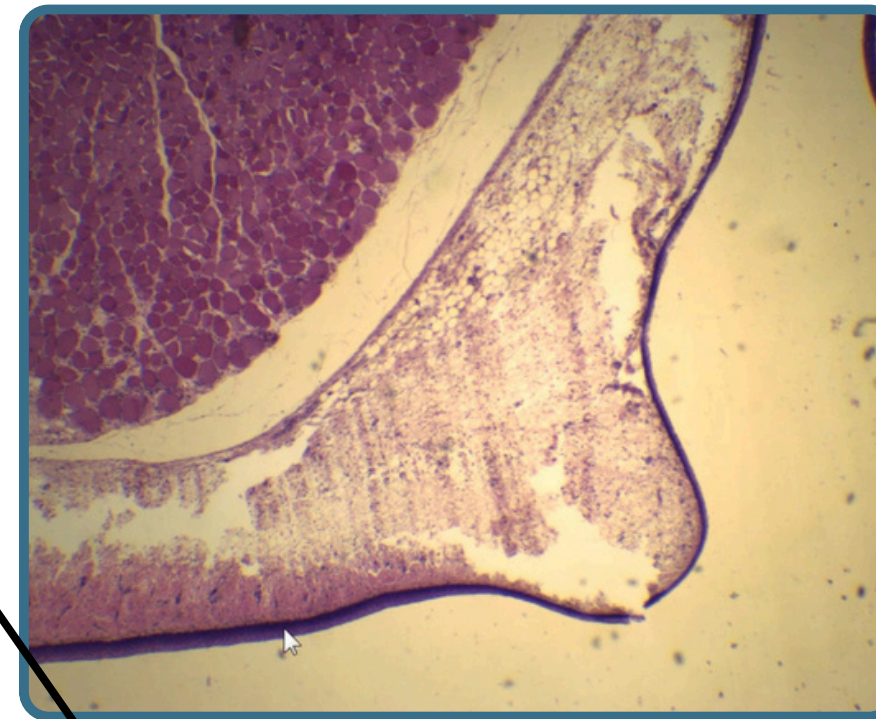


Section In The Larynx

False Vocal Folds

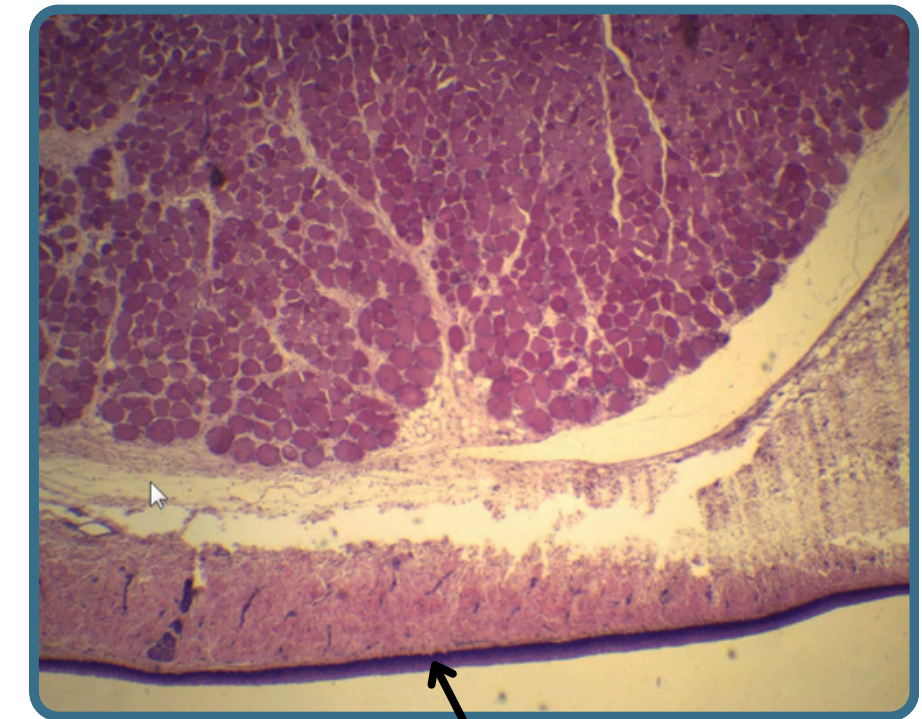


the **covering epithelium** is **respiratory epithelium** (ciliated pseudostratified columnar epithelium)

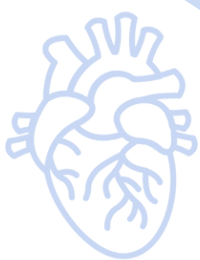


Seromucus gland

True Vocal Folds

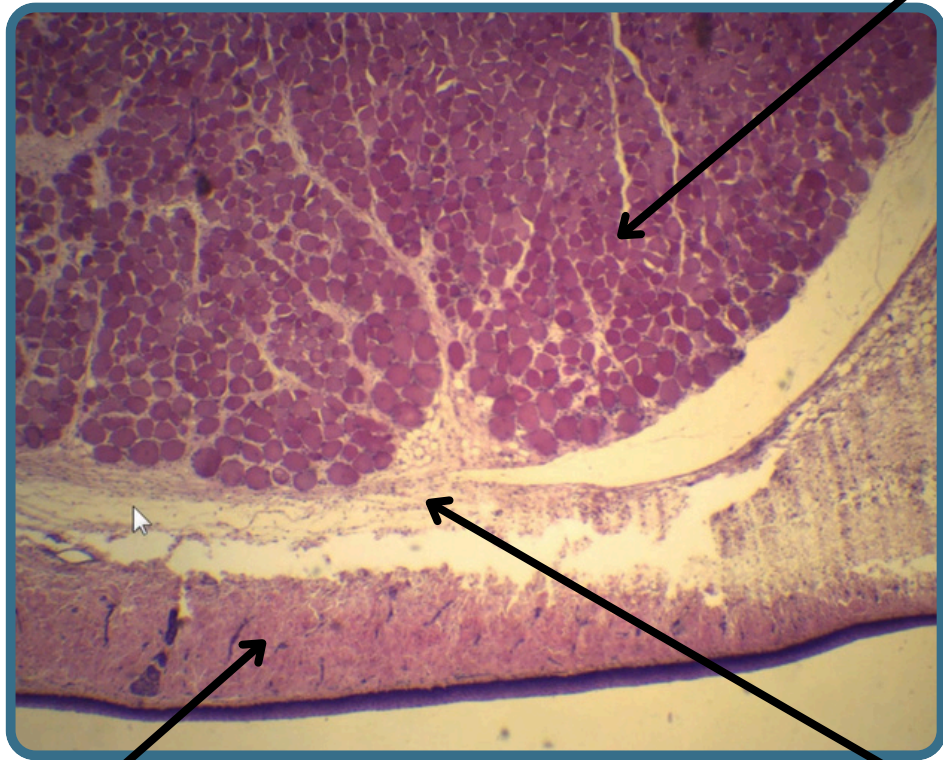
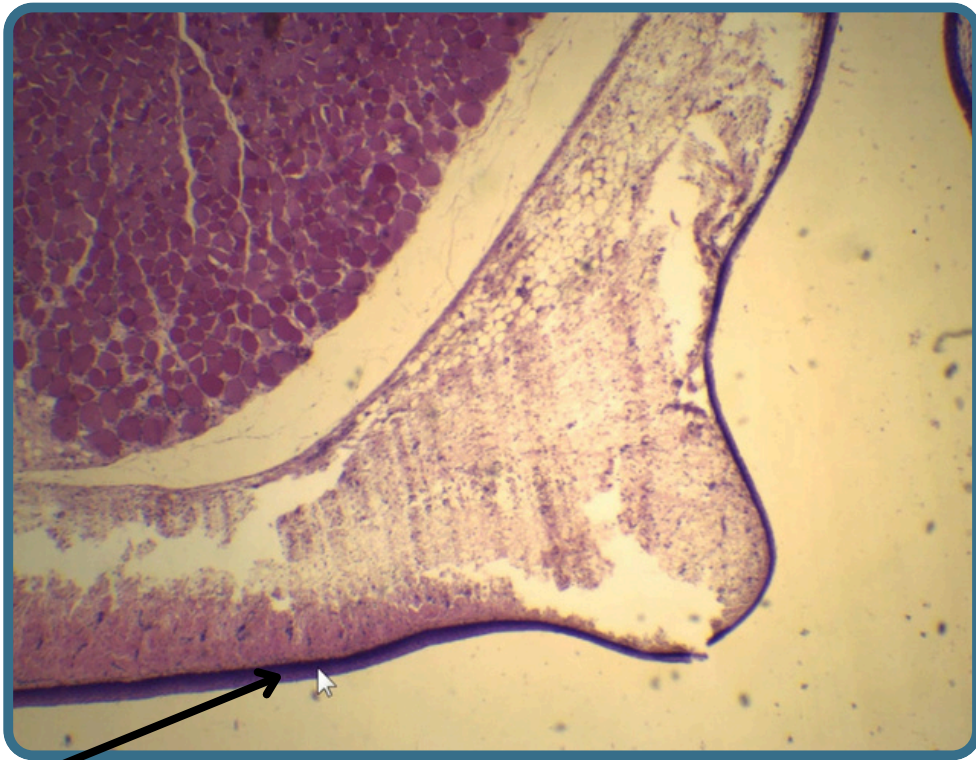


The **covering epithelium** is stratified squamous epithelium



Section In The Larynx

True Vocal Folds



skeletal muscle fibers
called **Vocalis muscle**

The **covering epithelium** is
stratified squamous epithelium

Lamina propria

Bundles of fibers called vocal

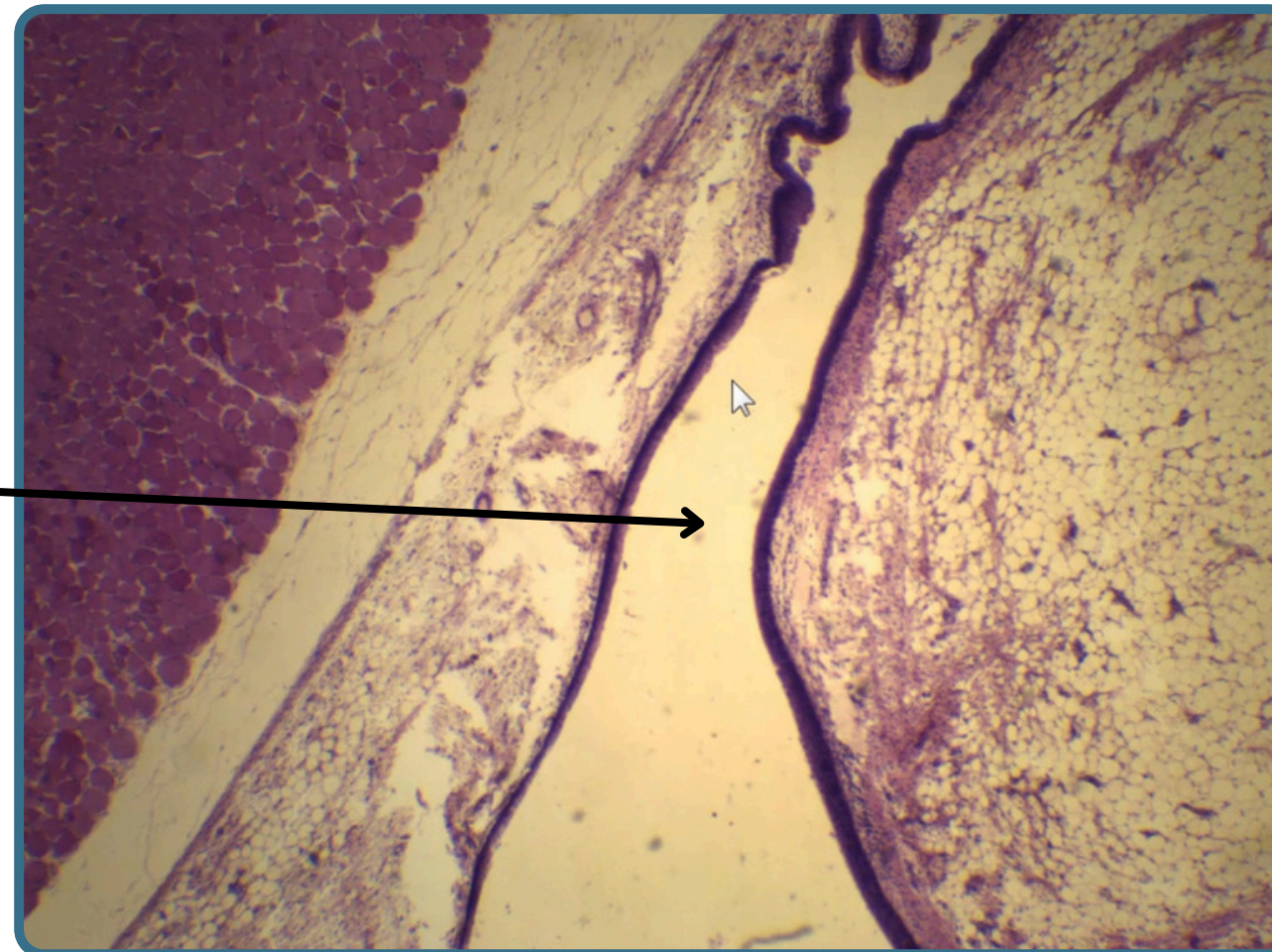


Respiratory System



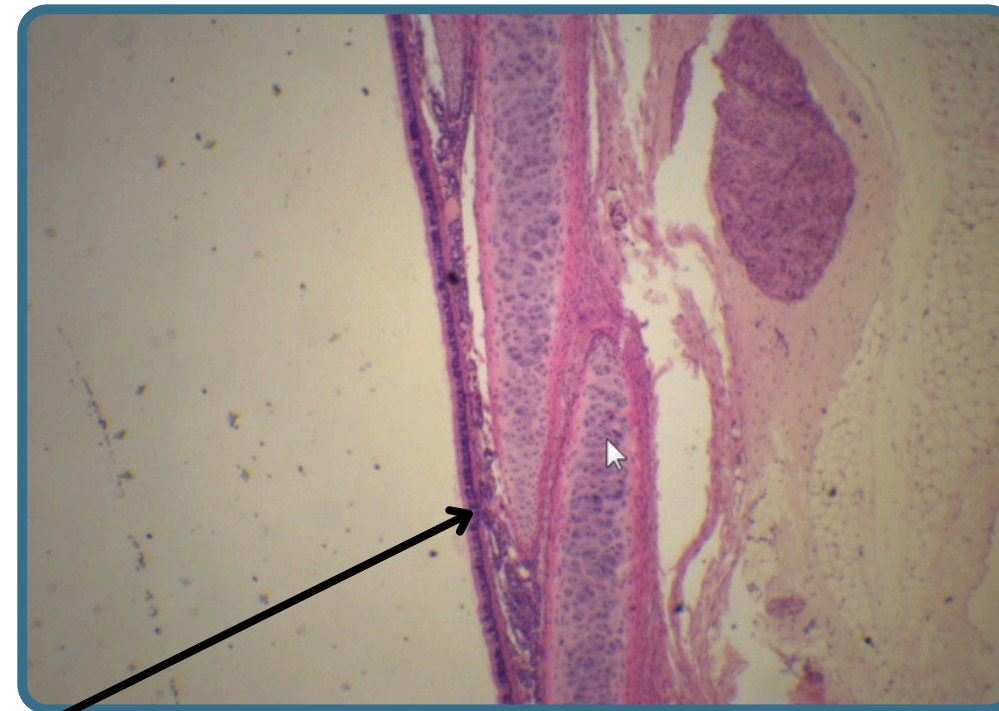
Section In The Larynx

These two folds are separated By **narrow space** or **ventricle**

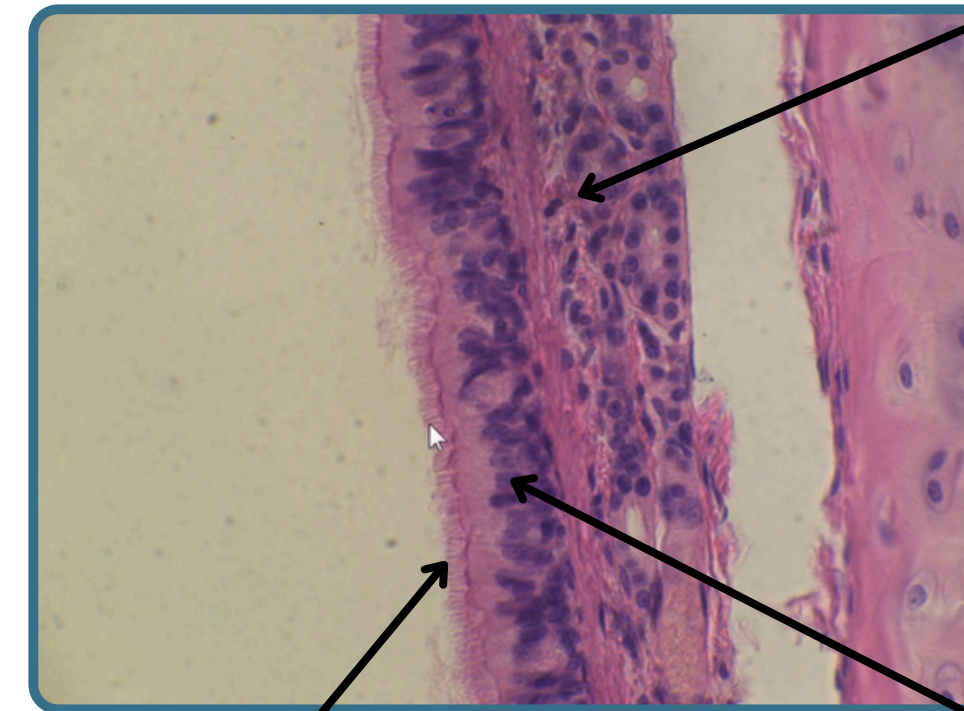




Section In The Trachea



the lining epithelium is **respiratory epithelium** (ciliated pseudostratified columnar epithelium)



Mucus gland

Cilia

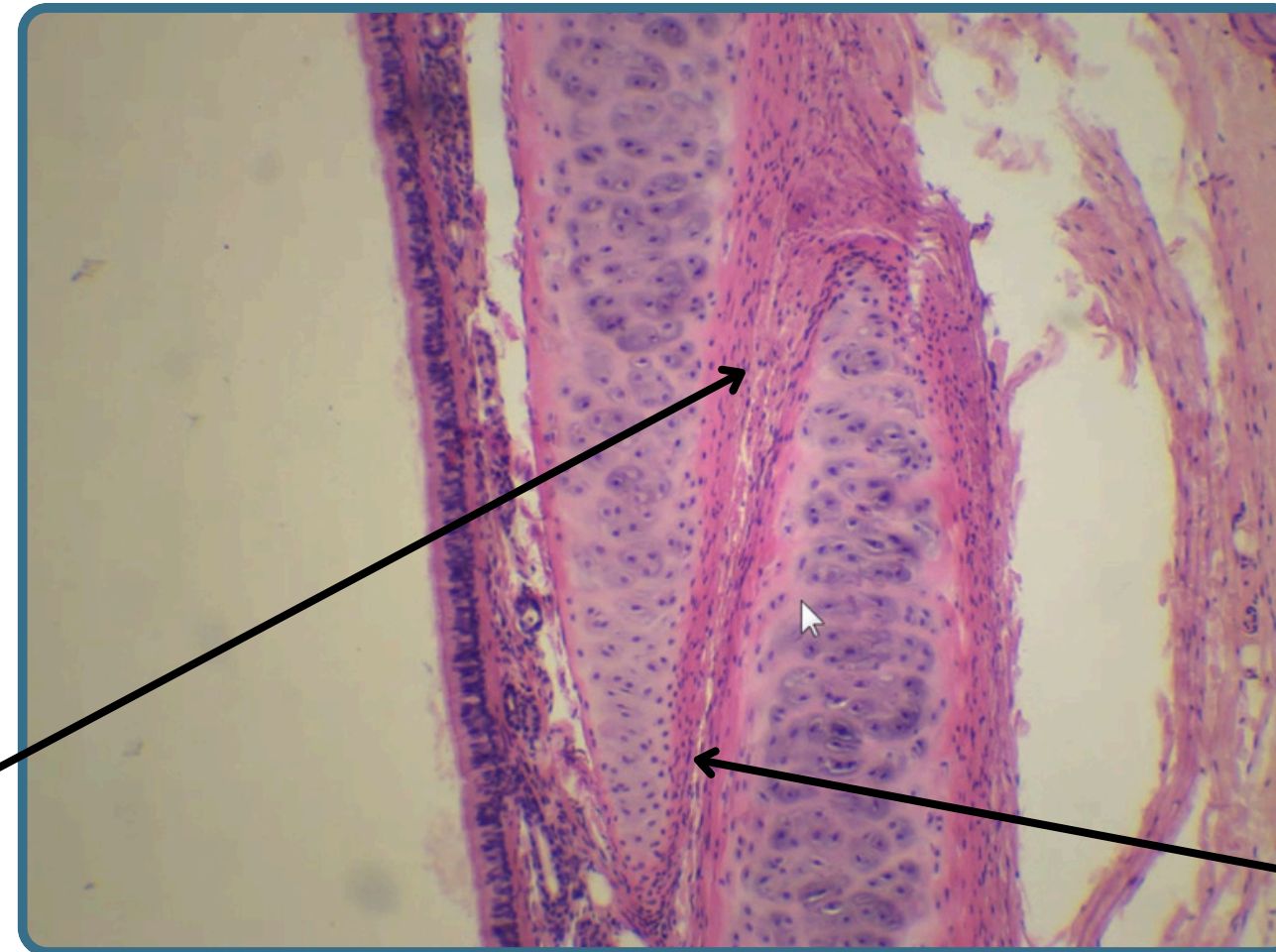
epithelium consist of **columnar cells** with **goblet cells**



Section In The Trachea

Q/how many ring of the hyaline cartilage found Within the wall of the trachea ?

A/ 16-20 ring



Trachealis muscle with fibroelastic ligament

bundles of smooth muscle fibers binds to perichondrium and bridge the open end of each C shape ring of hyaline cartilage

Fibroelastic Ligament



Respiratory System



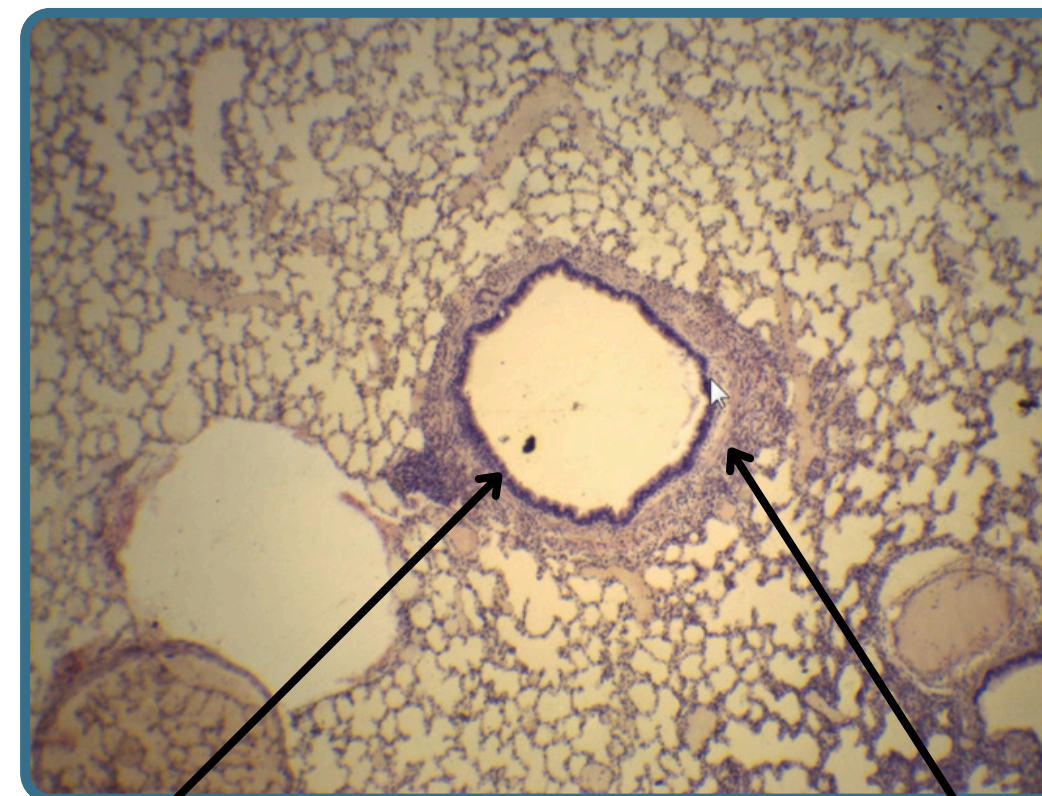
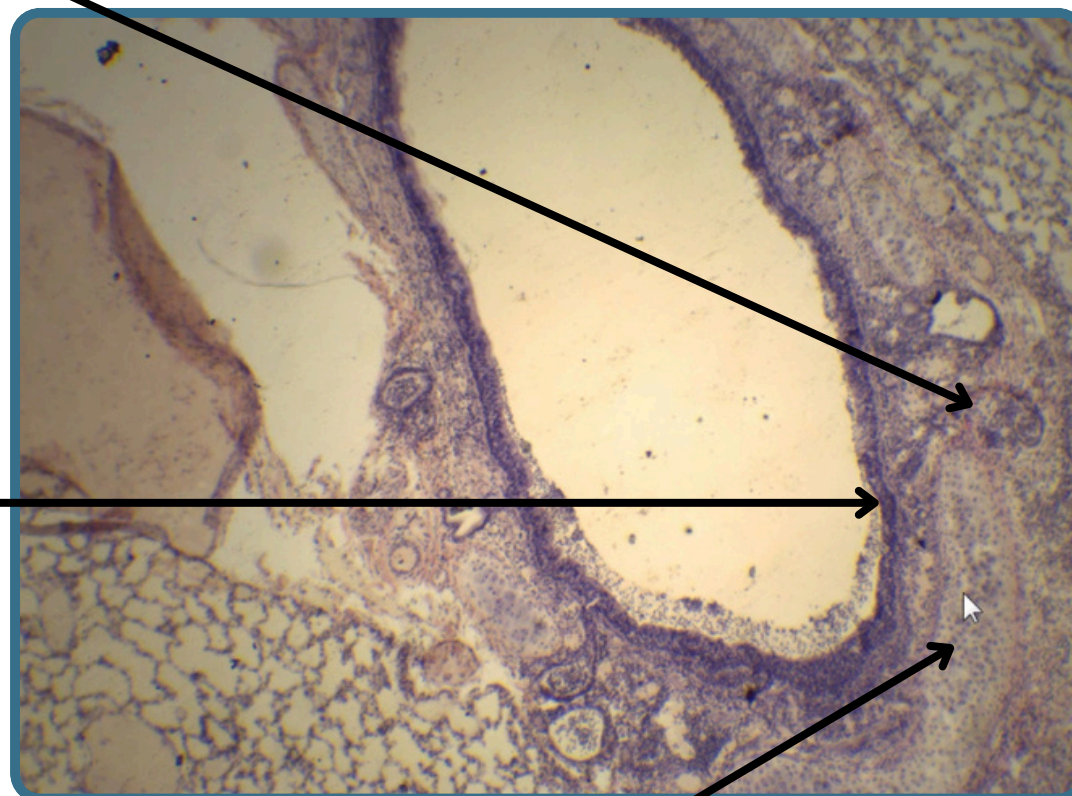
Section In The Lungs

Seromucus gland

Bronchus

Large Bronchiole

Lamina propria



Plates of hyaline cartilage

Respiratory Epithelium

The wall is **devoid** of glands and cartilage consist of connective tissue, elastic, reticular fibers and strands of smooth



Respiratory System

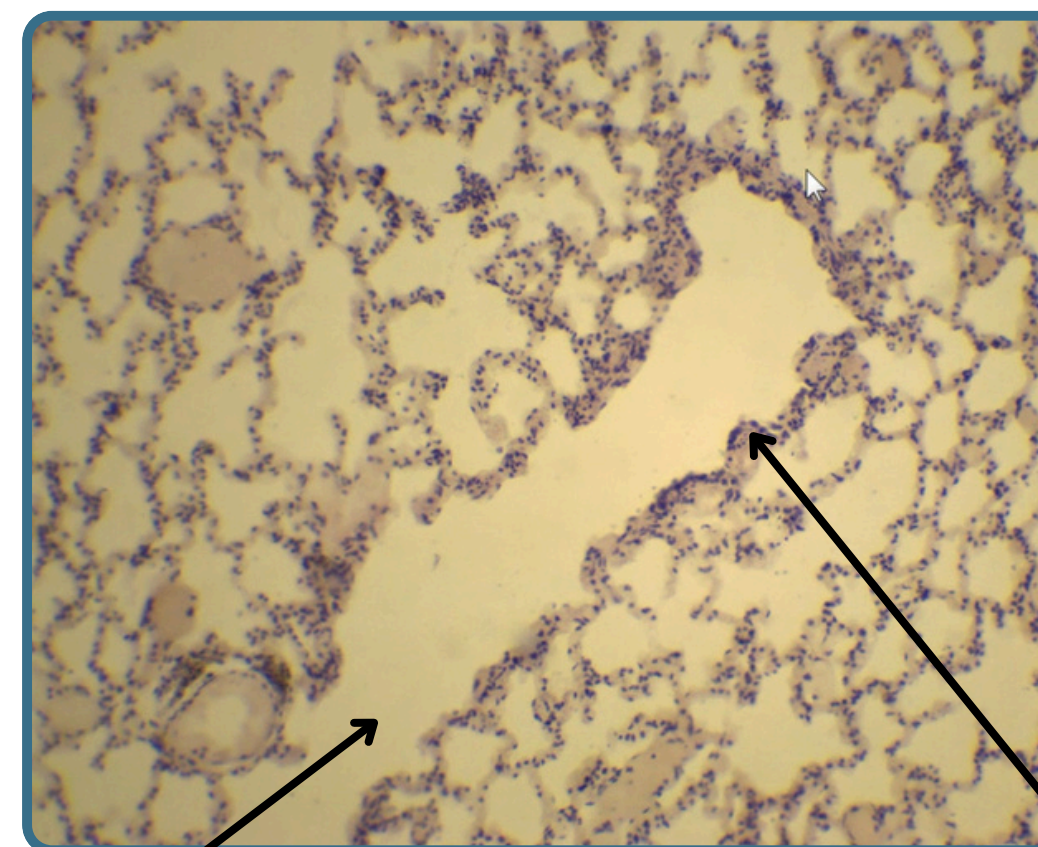
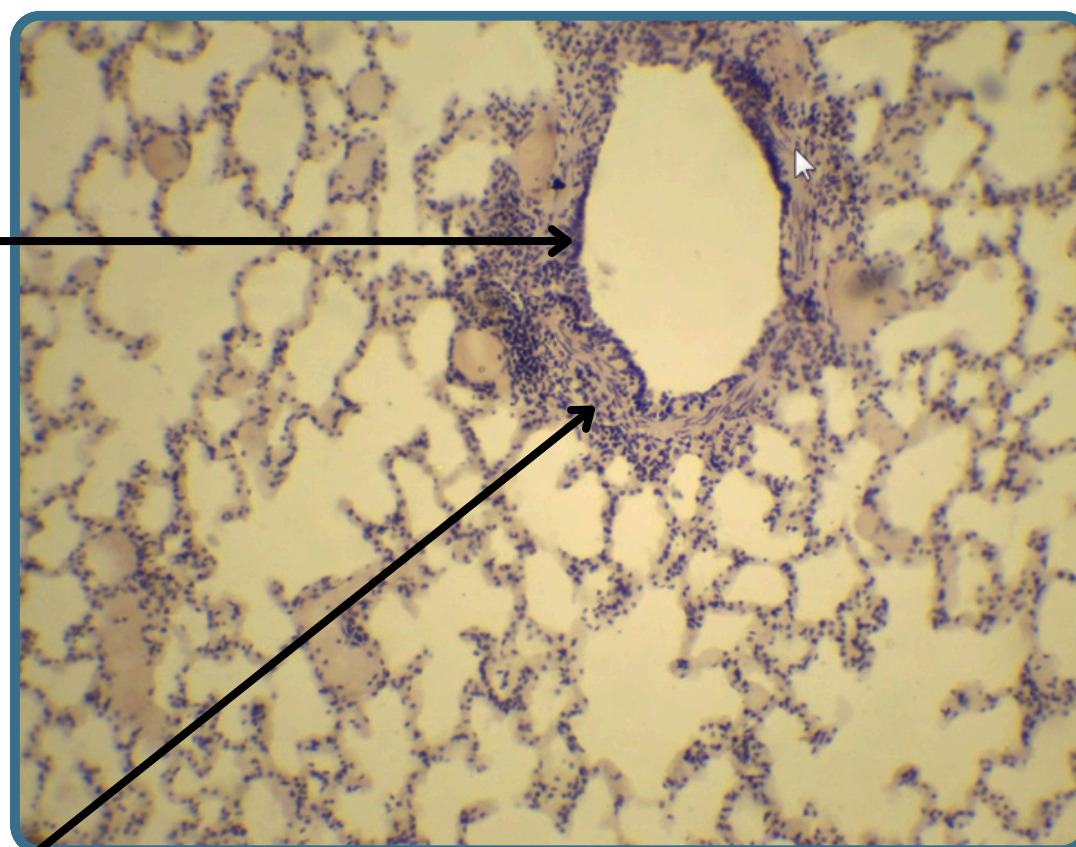


Section In The Lungs

Terminal Bronchiole

Respiratory Bronchiole

the lining epithelia is **simple cuboidal or columnar epithelium**



The **lamina propria** consists of strands of smooth muscle fibers with elastic and reticular fibers

Alveolar duct

The **respiratory bronchiole** has the **opening of the alevoli**

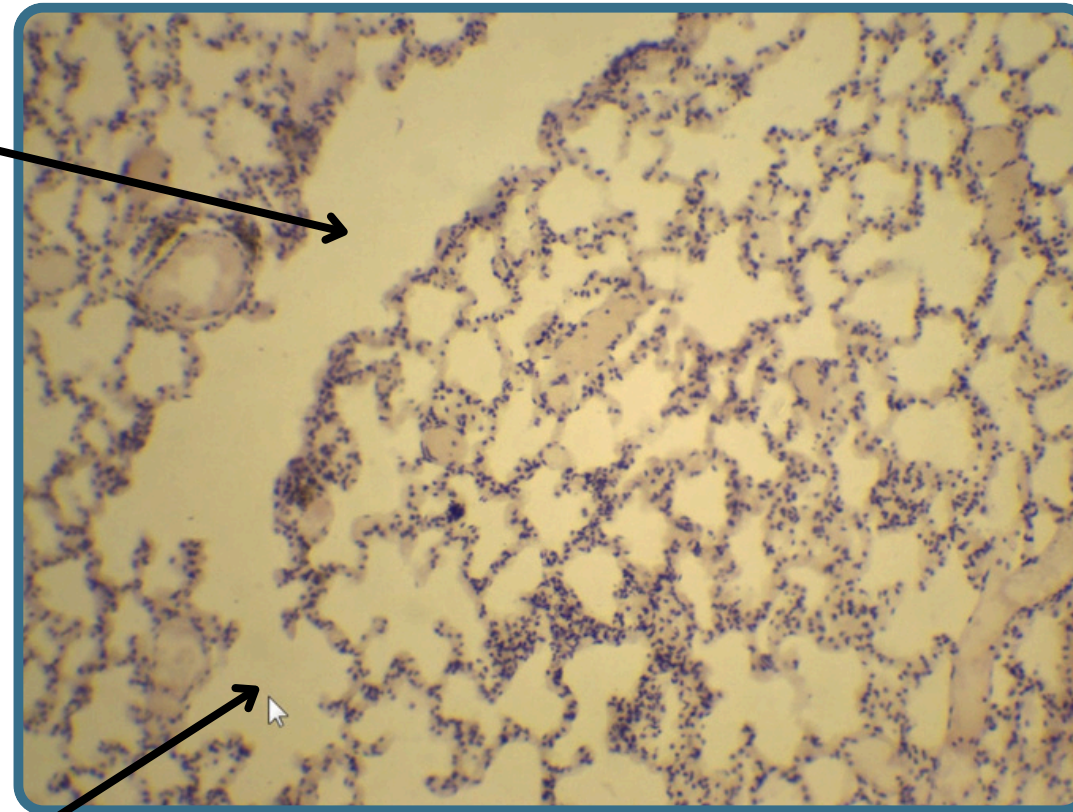


Respiratory System



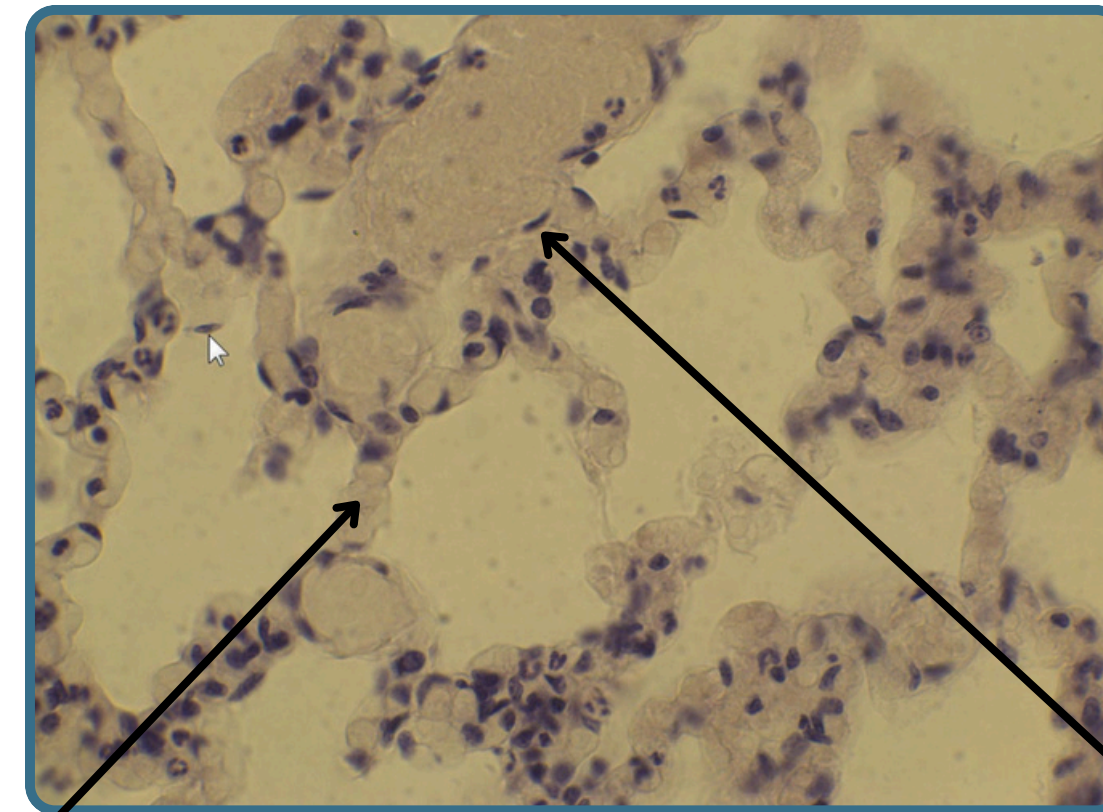
Section In The Lungs

Alveolar duct



Alveolar sac

interalveolar septum



Type II alveolar
cell or pneumocyte

Type I alveolar cell
(simple squamous cell)

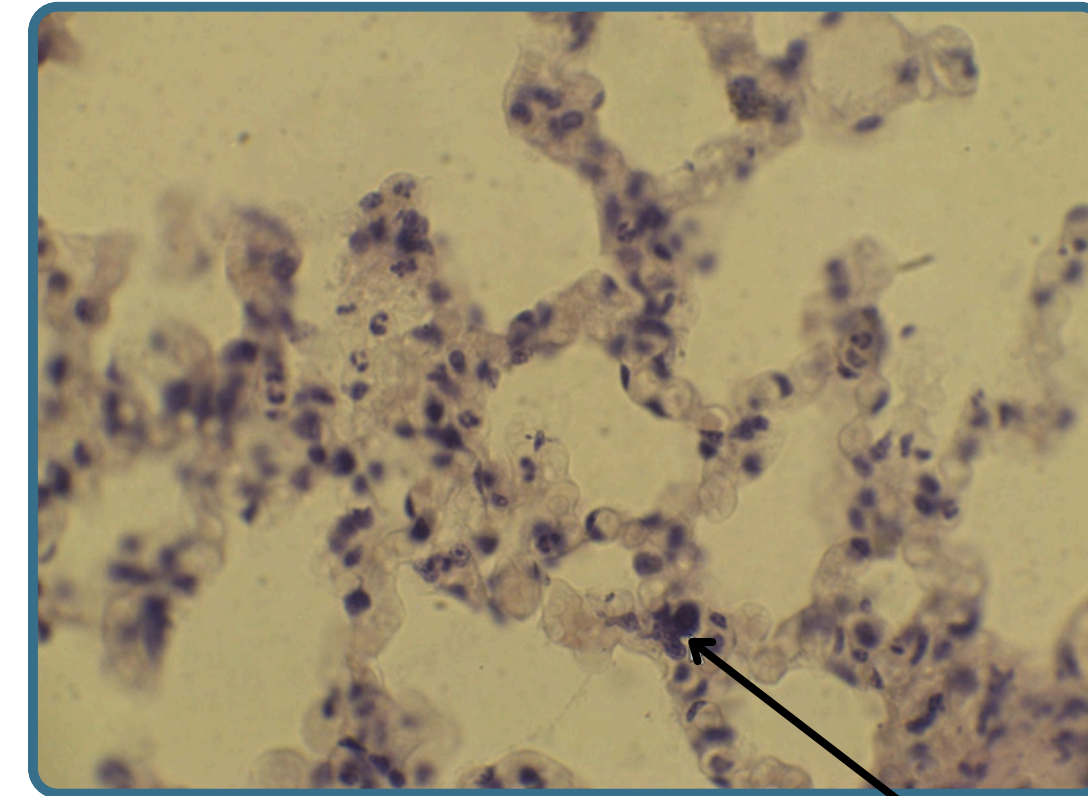
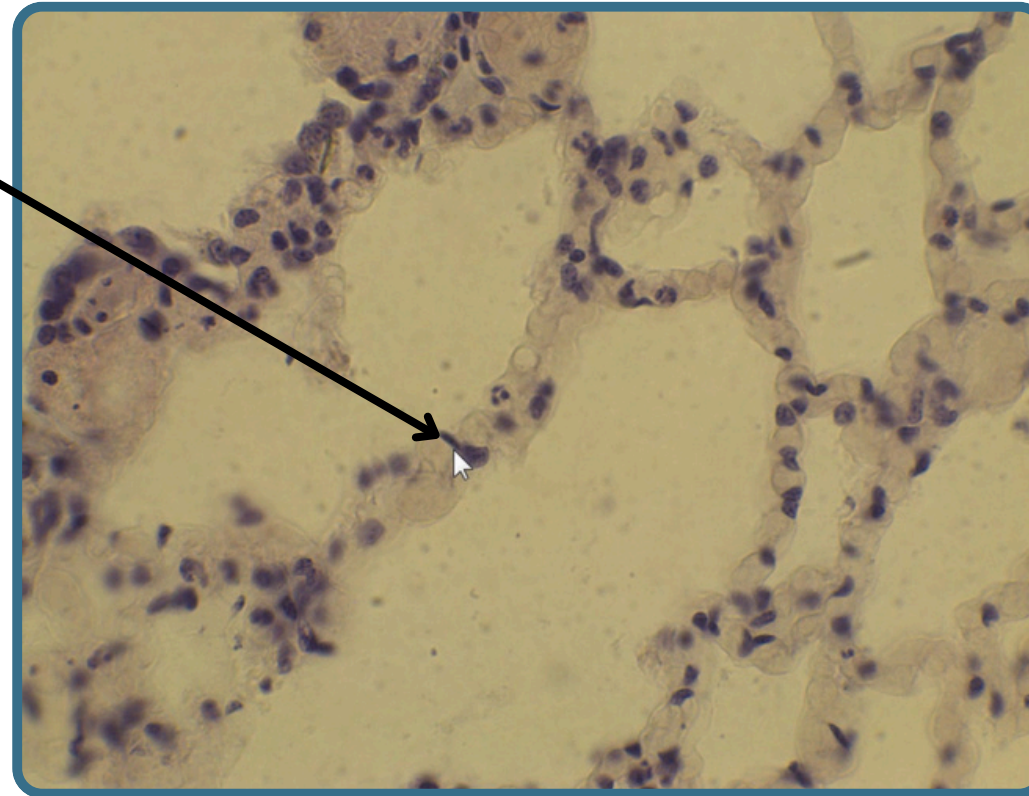


Respiratory System



Section In The Lungs

Endothelial cells lined
the capillary



macrophage cell

large irregular called (**dust cell**) in shape and darkly stain



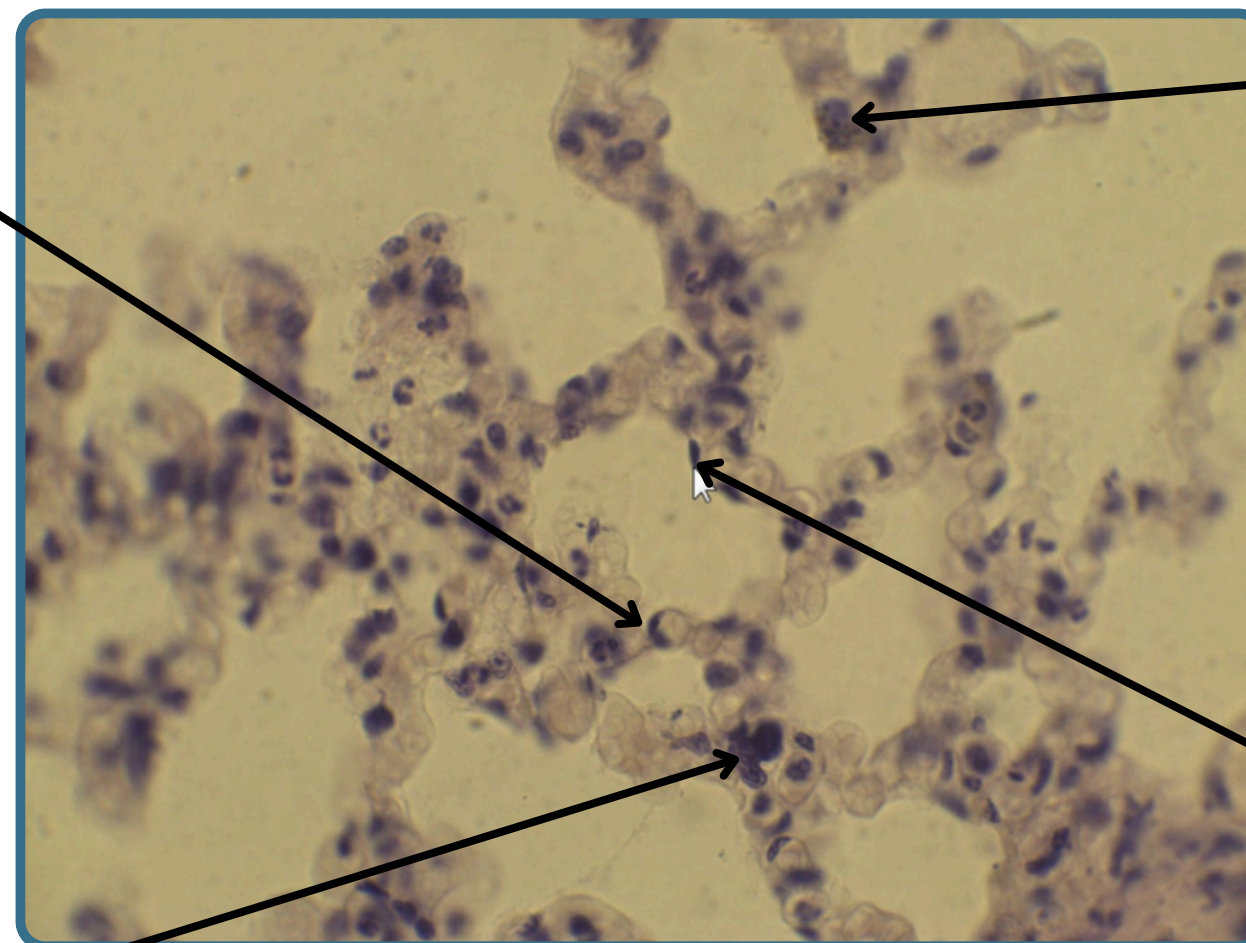
Respiratory System



Section In The Lungs

Capillary with endothelial cell

Type II alveolar cell



macrophage cell

Type I alveolar cell

All Slides Are Stained By Hematoxylin and Eosin

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