

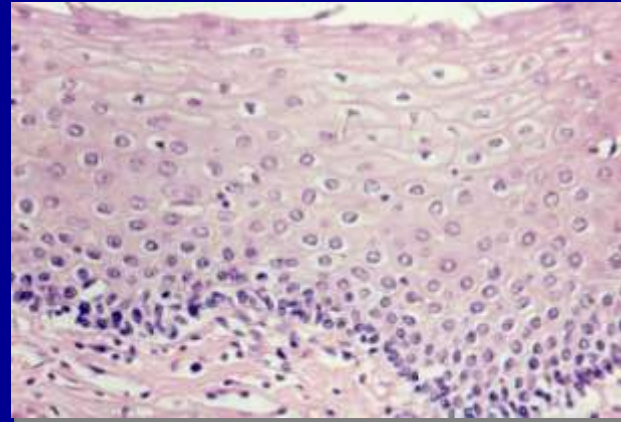
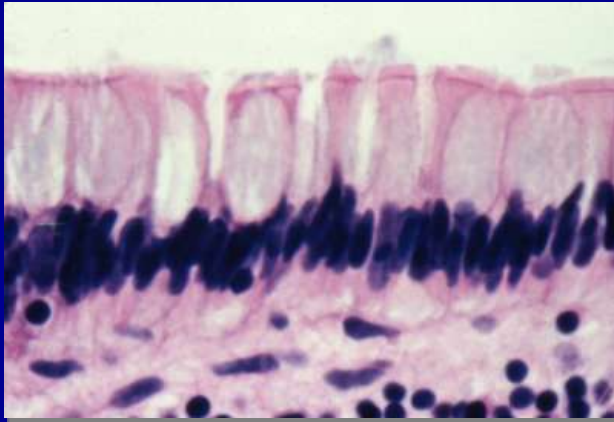
Histology

Histology

- ⊕ Epithelial Tissue
- ⊕ Connective Tissue
- ⊕ Nervous Tissue
- ⊕ Muscle Tissue

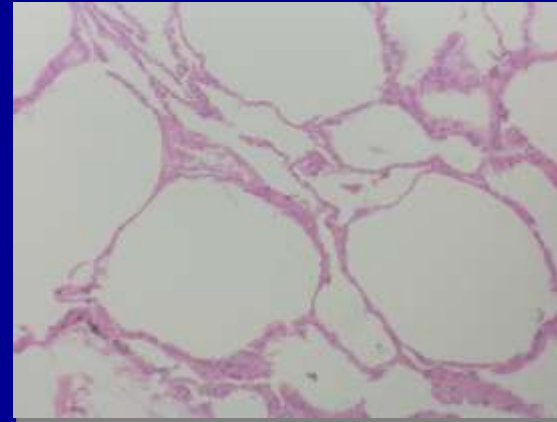
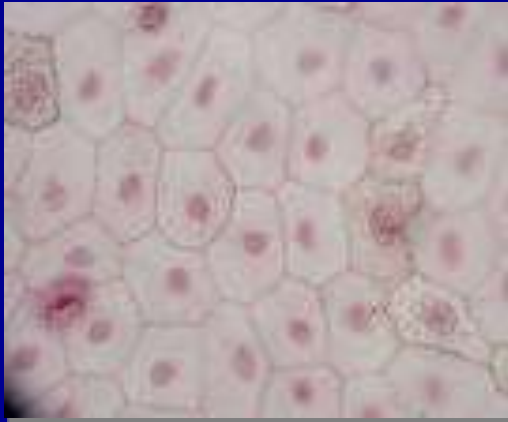
Epithelial Tissue

Simple vs. Stratified



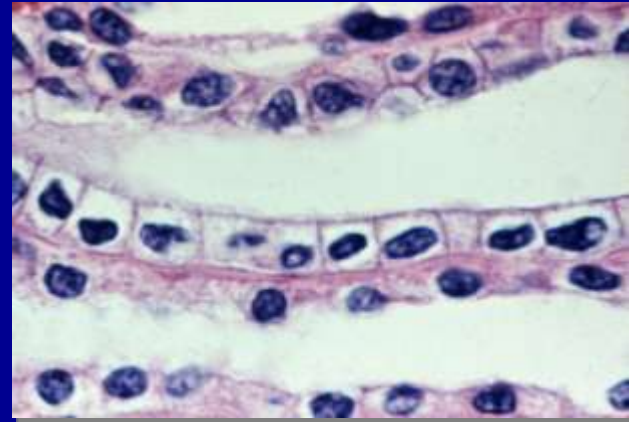
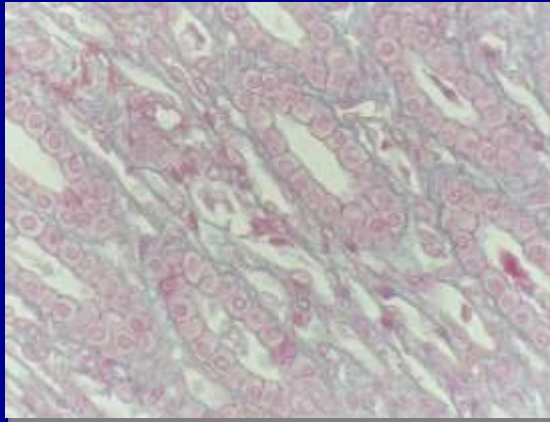
- ⊕ Epithelial tissue can be organized into a single layer (simple) or into a multi-layered sheet (stratified).
- ⊕ *What is the advantage of each?*

Simple Squamous Epithelium



- ⊕ flat cells
- ⊕ Locations: make up the **air sacs of the lungs** (shown on the right), the pleura & peritoneum and the **lining of blood vessels, the heart,** & lymphatic vessels.

Cuboidal Epithelium



- ⊕ Cubed-shaped cells
- ⊕ Locations: makes up the **kidney tubes** and **glands**.
- ⊕ *Look for cuboidal cells when you view the oil glands in the scalp!*

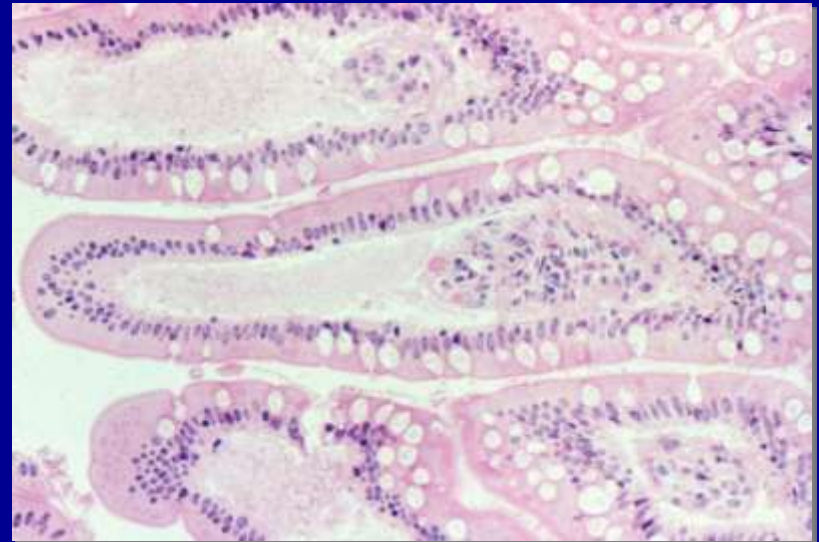
Simple Columnar Epithelium (nonciliated)

Cells are column
shaped

Locations:

lines the entire
digestive tract
(esophagus,
stomach, intestines,
and rectum).

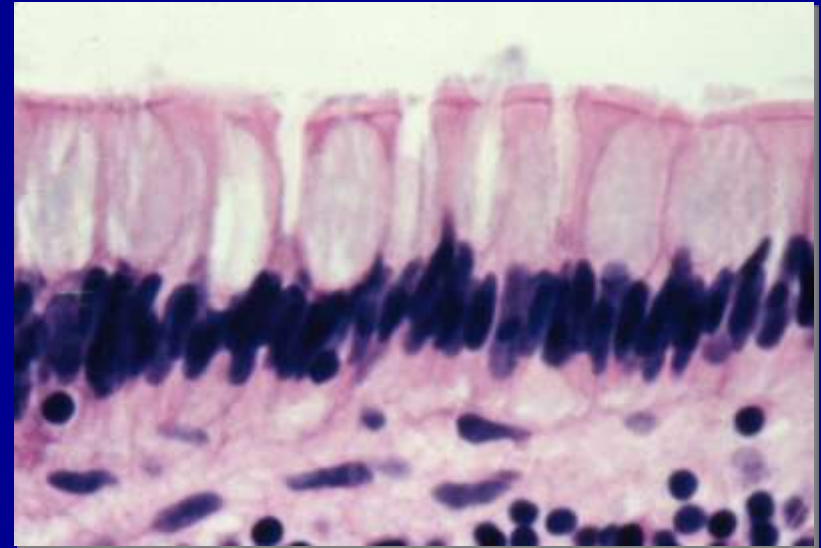
⊕ *What are those
bubble-like things?*



Simple Ciliated Columnar Epithelium

⊕ Locations: lines the bronchii and the uterine tubes.

⊕ *Why is found in these locations?
How does anatomy drive physiology?*

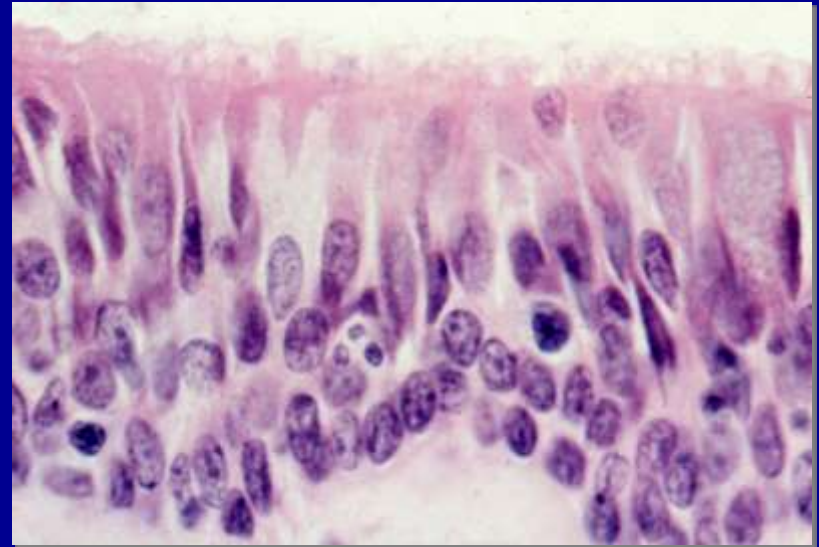


Ciliated pseudostratified Columnar Epithelium

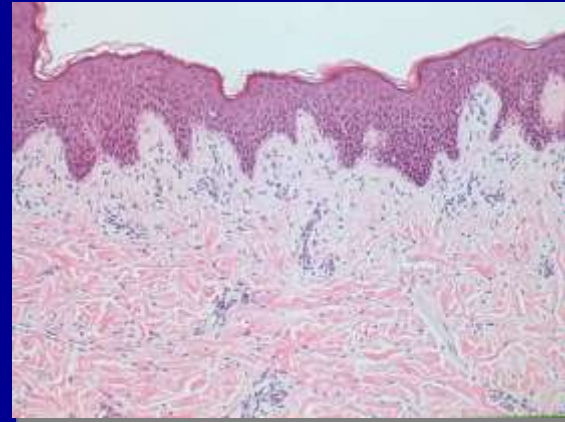
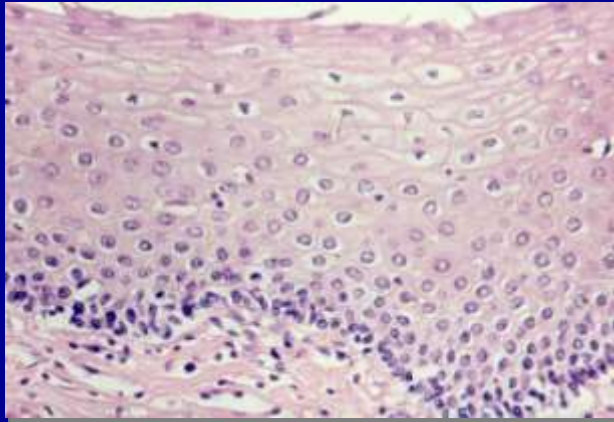
Found: **lining the trachea.**

Note location of the nuclei falsely giving it a stratified appearance.

What is the function of cilia?



Stratified Squamous Epithelium



- ⊕ Left: nonkeratinized found lining the **mouth**, esophagus and vagina.
- ⊕ Right: keratinized form found in the **external skin**, **roof of the mouth** and **gums**.
- ⊕ *How do these two differ?*

Creating Three-dimensional Models of Epithelium

LT: I can demonstrate an understanding of how cells form tissues.

Tissues to create:

1. Simple cuboidal-cell 1cm^3
2. Pseudostratified ciliated columnar
3. Stratified squamous

The epithelial sheet should be 2"X2."

Make each cell individually.