

Name _____

Looking at Epithelial Tissues

OPEN THESE TWO WEBSITE IN SEPARATE TABS OR IN SEPARATE WINDOWS (both linked directly on my site):

Downstate: <http://ect.downstate.edu/courseware/histomanual/epithelia.html>

Zoology: <http://www.zoology.ubc.ca/~lacombe/biomania/tutorial/tuthisto/ep03.htm>

Simple Squamous Epithelium

1. Based on the name alone, how many layers of cells are there, and what shape are the cells?
2. Click on "simple squamous" (left side) on the zoology website. Draw what these cells look like. →
3. On the Downstate website, next to the picture for this type of tissue, it says where a special type of simple squamous epithelium (*endothelium*) is common. What are those two places?

Drawing of Simple Squamous Epithelium

4. Click on the microscope slide on the Downstate site. Note the "Structure list." If you click on a word in the Structure List, it will highlight that structure on the picture (super helpful!). You don't have to write anything, but compare the zoology picture to this one.

Simple Cuboidal Epithelium

5. Based on the name alone, how is this type of tissue different than the previous?
6. Look at the zoology site's drawing of simple cubical tissue. Draw it in the box →
7. According to the description of this tissue on the Downstate site, where are these types of cells found?
8. Click on the microscope slide on Downstate's site and compare it to your drawing. You want to make sure you're doing this- for the test, I'm going to give you pictures of tissue types and you need to identify them!

Drawing of Simple Cuboidal Epithelium

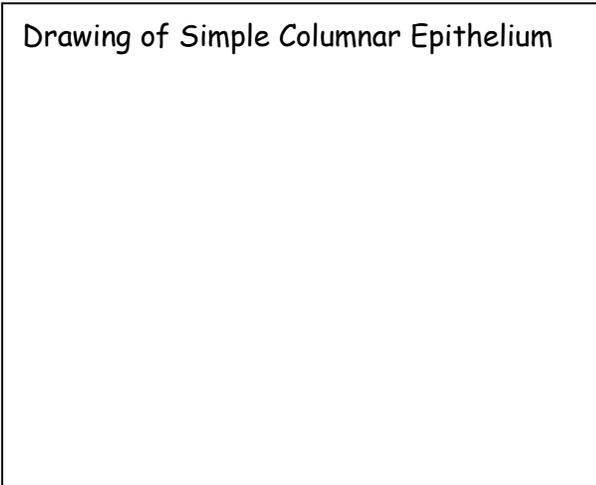
Simple columnar epithelium

9. What does the name "Simple columnar epithelium" imply about the shape/number of layers of cells?

10. According to the Downstate site, where are these types of cells usually found?

11. Click on the first picture (the one that's the most to the left). Draw an individual simple columnar cell. Use the zoology site to see what these cells look like (I know that the tissue picture is hard to make out).

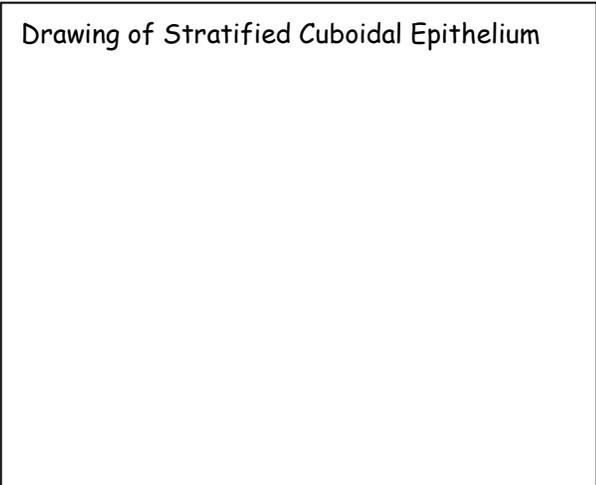
Drawing of Simple Columnar Epithelium



Stratified cuboidal epithelium and Stratified columnar epithelium

12. According to Downstate, where are these tissues found?

Drawing of Stratified Cuboidal Epithelium

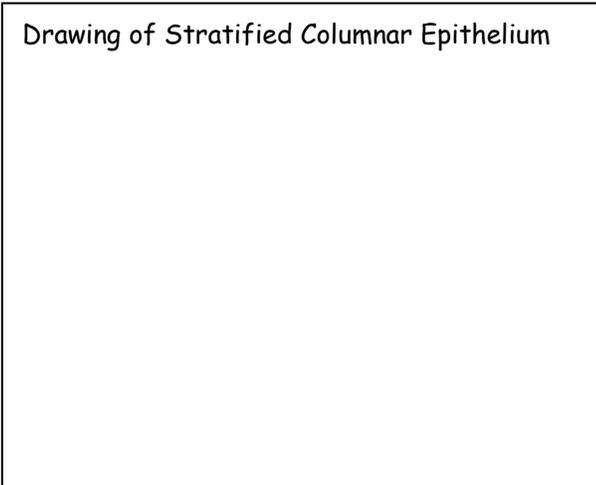


13. Draw what both should look like based on their names alone in the boxes to the right.

14. According to the zoology website, what is the role of stratified cuboidal epithelium?

15. According to the zoology website, is stratified columnar epithelium common or rare? Where is it mostly found?

Drawing of Stratified Columnar Epithelium



Pseudostratified Columnar Ciliated Epithelium

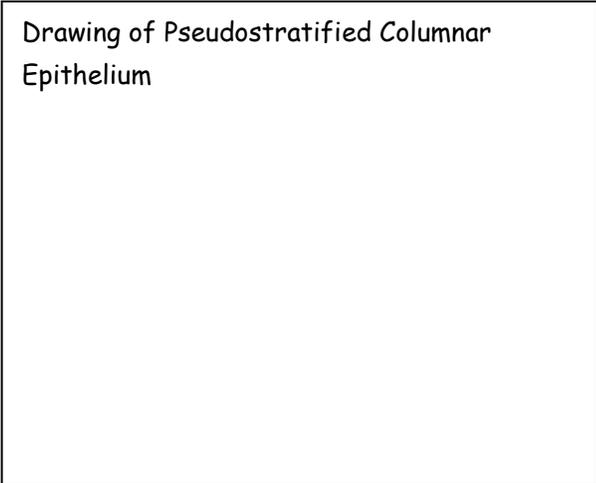
16. What does "pseudostratified" mean?

17. Where is this type of epithelium usually found, according to the Downstate site?

18. Draw a picture of pseudostratified columnar epithelium as seen on the zoology website. →

19. Look at the microscope picture of this type of membrane on the Downstate slide. Describe where the cilia are located on the cells.

Drawing of Pseudostratified Columnar Epithelium



Stratified Squamous Epithelium

20. How is this kind of tissue different from the very first kind that you looked at?

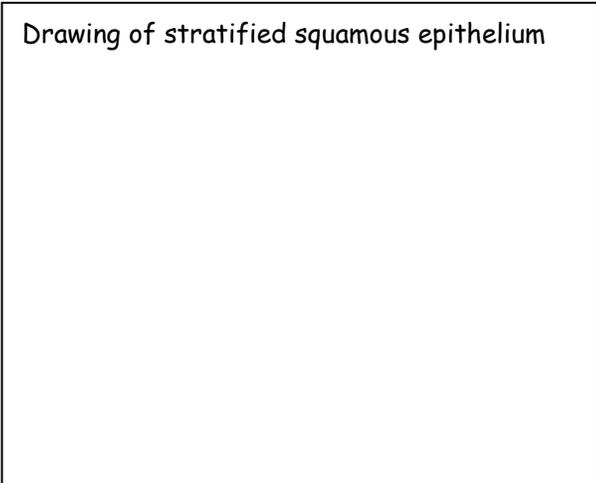
21. Where is it found in the body, according to the Downstate site?

22. Look at the esophagus slide (the second one down under this type of tissue) on the Downstate site. Draw this type of tissue to the right. →

23. According to the zoology website, what is the main function of this type of tissue?

24. According to the zoology website, these cells may contain keratin. What is keratin?

Drawing of stratified squamous epithelium



Transitional Epithelium

25. According to the zoology website, what types of organs have this type of tissue?