

Mastery Series: Lower Respiratory Tract

1. How many lobes in the right lung? In the left lung?
2. How many primary bronchi are there?
3. What prevents primary, secondary and tertiary bronchi from collapsing?
4. Are bronchi considered part of the conducting or respiratory zone?
5. What type of tissue composes an alveolus?
6. What prevents an alveolus from collapsing?
7. What type of tissue is a capillary?
8. Why is the tissue type of the alveolus and of the capillary significant to the function of the respiratory membrane?
9. What is the function of surfactant?
10. Why are premature babies often labored in their breathing?
11. Why are mothers that are delivering prematurely sometimes given steroid shots?
12. What type of cell keeps the alveoli sterile?
13. In tuberculosis, where does *Mycobacterium tuberculosis* sometimes reside?
14. What is the difference between pleural effusion and fluid in the lungs?

1. 3; 2
2. 1 on each side
3. Hyaline cartilage reinforces and strengthens them
4. Conducting
5. Simple squamous epithelium
6. Surfactant; negative pressure in the pleura
7. Simple squamous epithelium
8. Thin, easy diffusion for gas exchange
9. Decreases surface tension of moisture in the alveolus
10. Since they don't have enough surfactant, their alveoli can collapse between breaths, and the babies must use their rib muscles to inflate some of their alveoli with each breath.
11. Steroids encourage production of surfactant by the baby.
12. Macrophages
13. Macrophages (yeeks!)
14. Pleural effusion is fluid accumulation in the pleural cavity—often occurs after trauma. Fluid in the lungs is fluid build-up in the alveoli—often occurs from pneumonia.