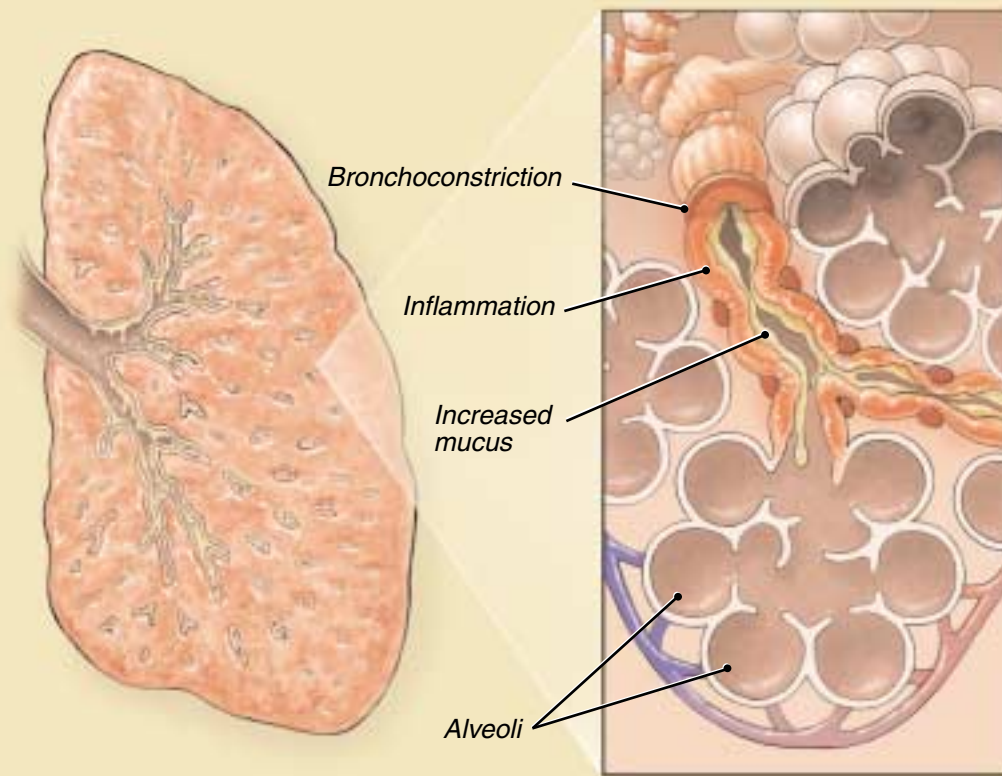


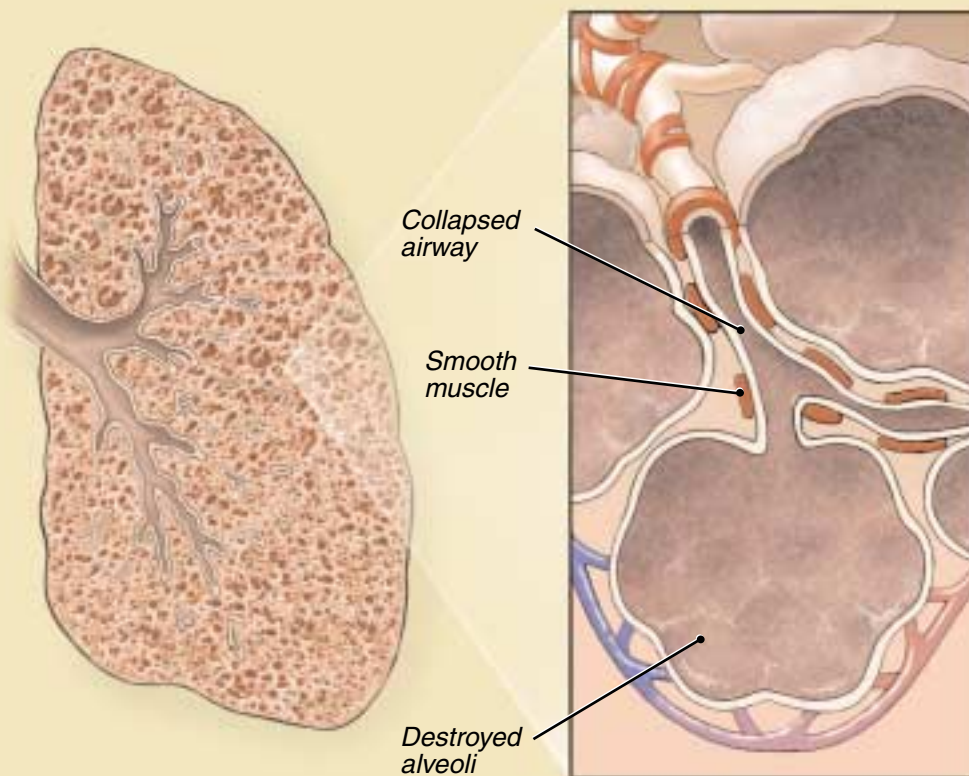
# How COPD Makes Breathing Difficult

Many people with COPD have elements of both chronic bronchitis and emphysema.



## CHRONIC BRONCHITIS:

In chronic bronchitis, the bronchial tubes become inflamed and clogged with mucus, which narrows the airways and makes it more difficult to get air into and out of the lungs. Also, the muscles around the airways constrict, squeezing the airways and making them even tighter (this is called bronchoconstriction). The cough and phlegm associated with chronic bronchitis is the body's attempt to clear these airways.



## EMPHYSEMA:

In emphysema, deformed or destroyed alveoli interfere with the exchange of oxygen and carbon dioxide; the amount of oxygen in the blood decreases while the amount of carbon dioxide increases. Also, the muscles around the airways constrict, squeezing the airways and making them even tighter (this is called bronchoconstriction). Because damaged alveoli do not "anchor" the bronchial tubes as well as they do in a healthy lung, the airways tend to collapse, restricting airflow.

Treatments for COPD include bronchodilators. These are medications that relax the muscles around the airways to relieve or prevent bronchoconstriction and improve airflow into and out of the lungs. Short-acting bronchodilators provide quick relief from COPD symptoms. Long-acting bronchodilators help keep the airways open and help patients breathe better around the clock.