

Nasal cavity

Air passing over the mucous membrane of the nasal cavity is moistened, warmed, and filtered.

Bronchiole

Inside the lungs, the bronchi branch into smaller tubes called the bronchioles.

Pharynx

The pharynx, or throat, is located where passages from the nose and mouth come together.

Epiglottis

The epiglottis is a flap of elastic tissue that forms a lid over the opening to the trachea.

Larynx

The larynx, or voice box, is located between the pharynx and the trachea. It contains two ligaments—the vocal cords—that produce sound when air moves through them.

Lungs

If one lobe is injured or diseased, the other lobes may be able to function normally.

Alveoli

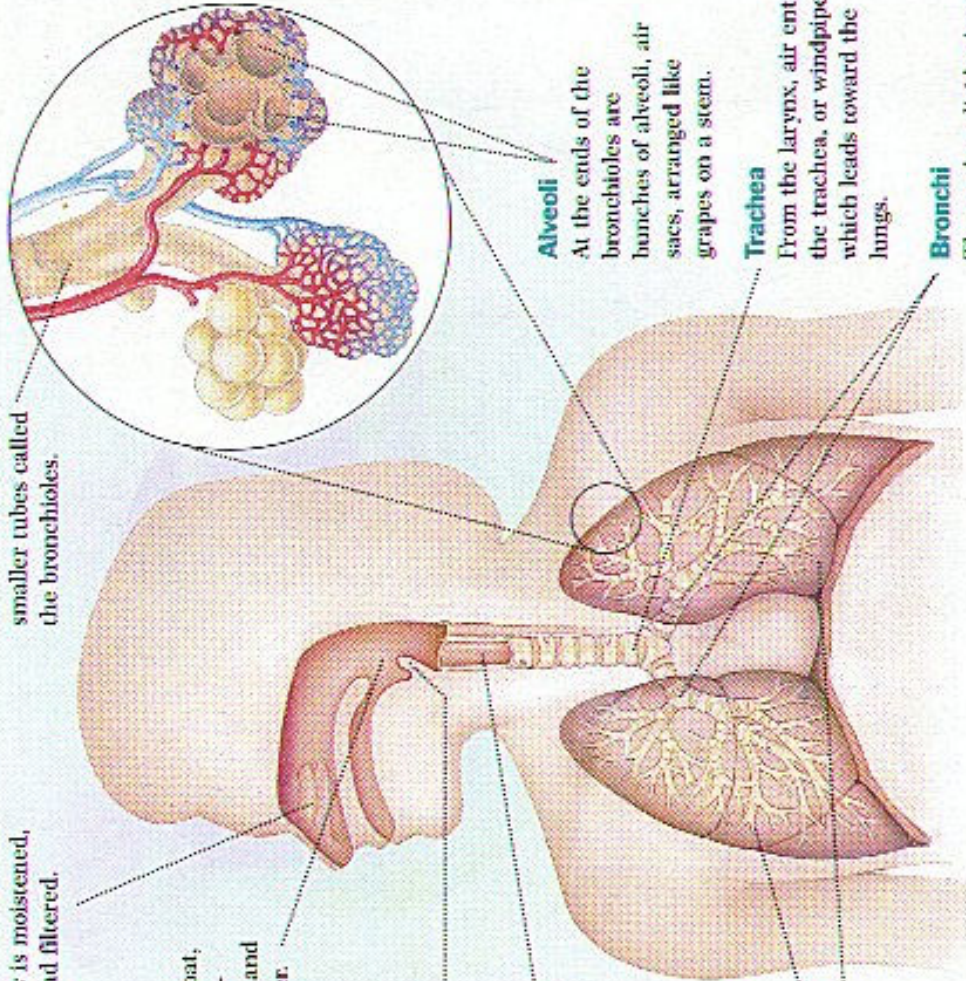
At the ends of the bronchioles are bunches of alveoli, air sacs, arranged like grapes on a stem.

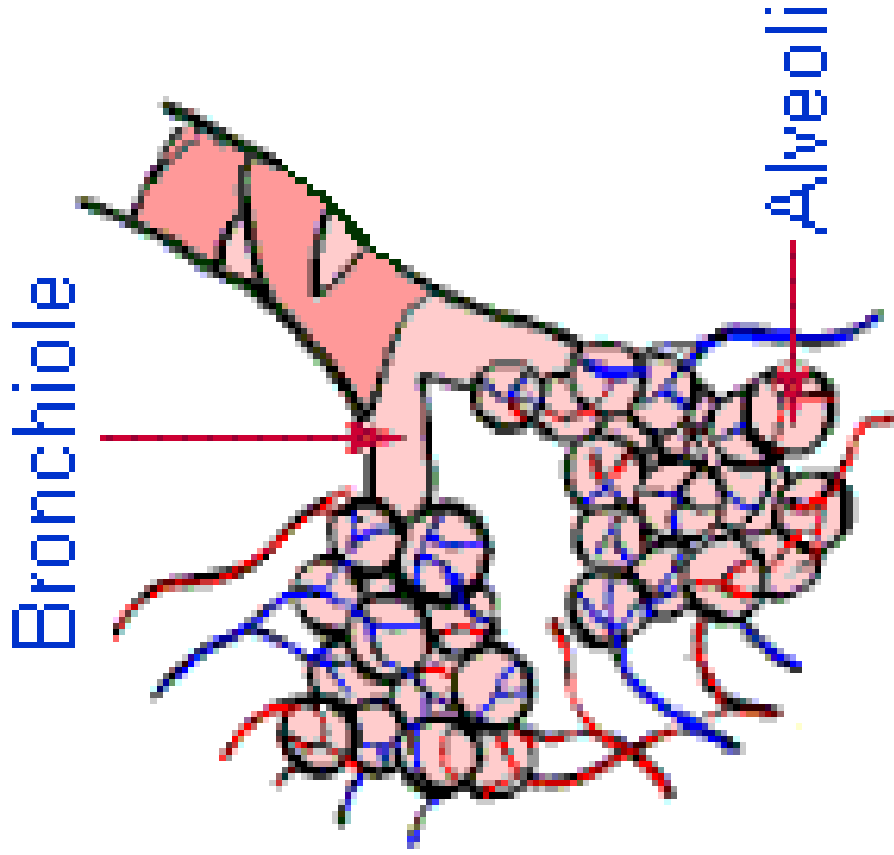
Trachea

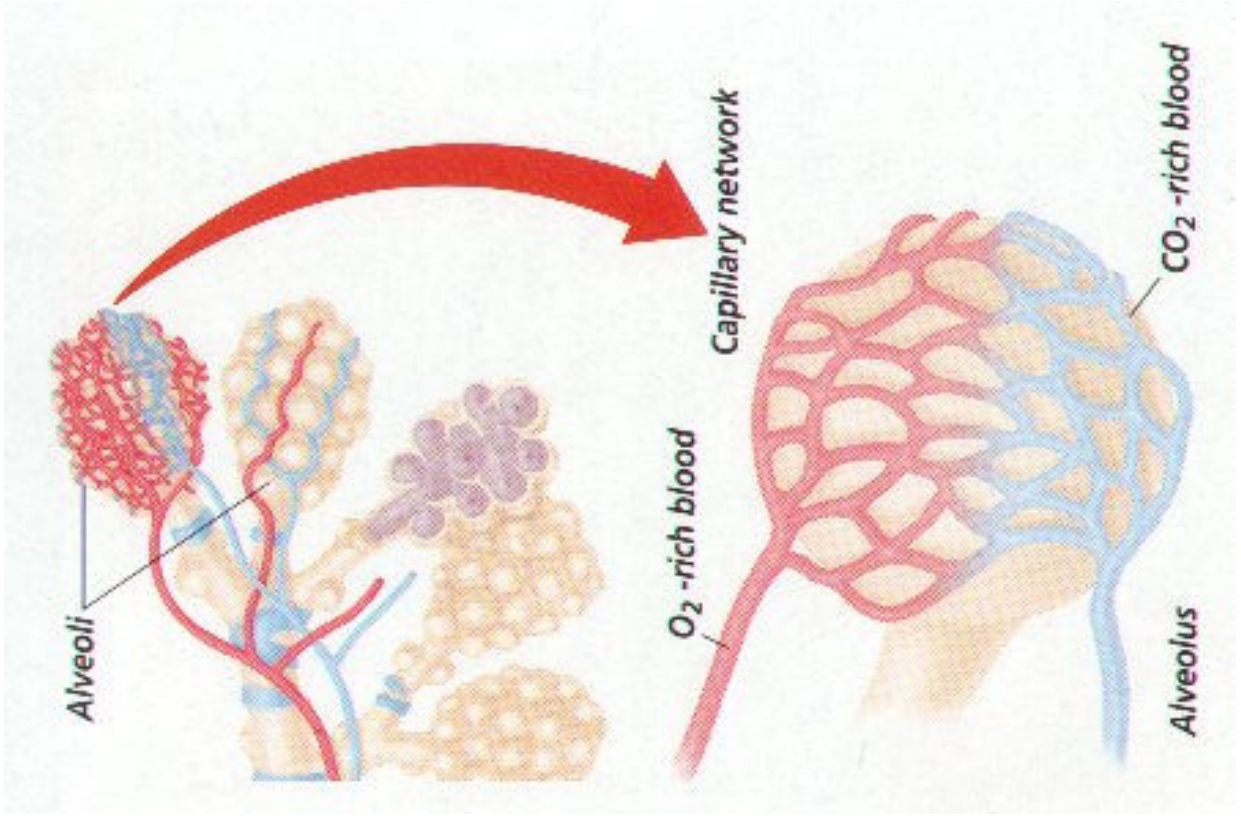
From the larynx, air enters the trachea, or windpipe, which leads toward the lungs.

Bronchi

The trachea divides into two tubes called bronchi.

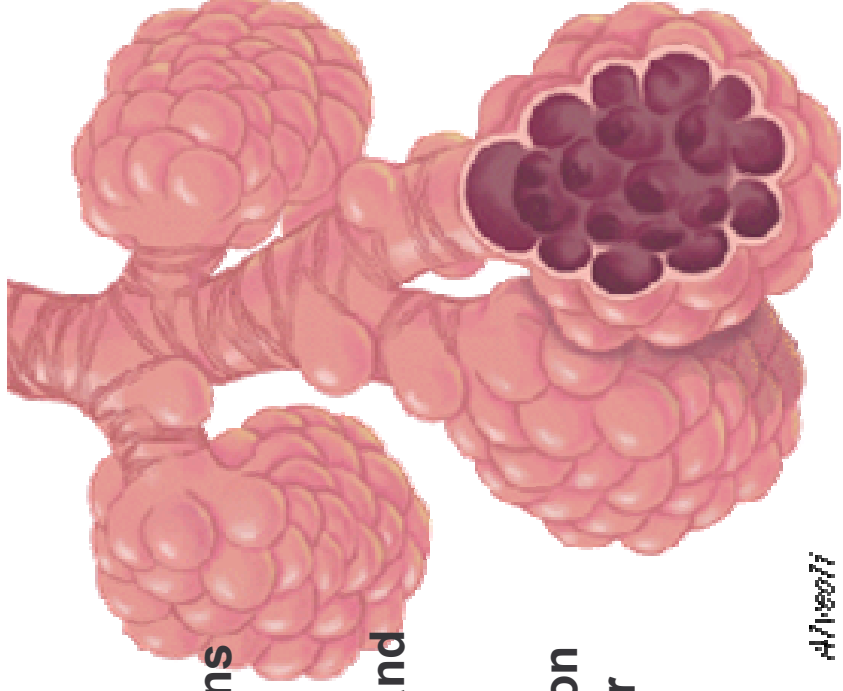






Alveoli

Type I cells have long cytoplasmic extensions which spread out thinly along the alveolar walls and comprise the thin alveolar epithelium. Type II cells are more compact and are responsible for producing surfactant, a phospholipid which lines the alveoli and serves to differentially reduce surface tension at different volumes, contributing to alveolar stability.

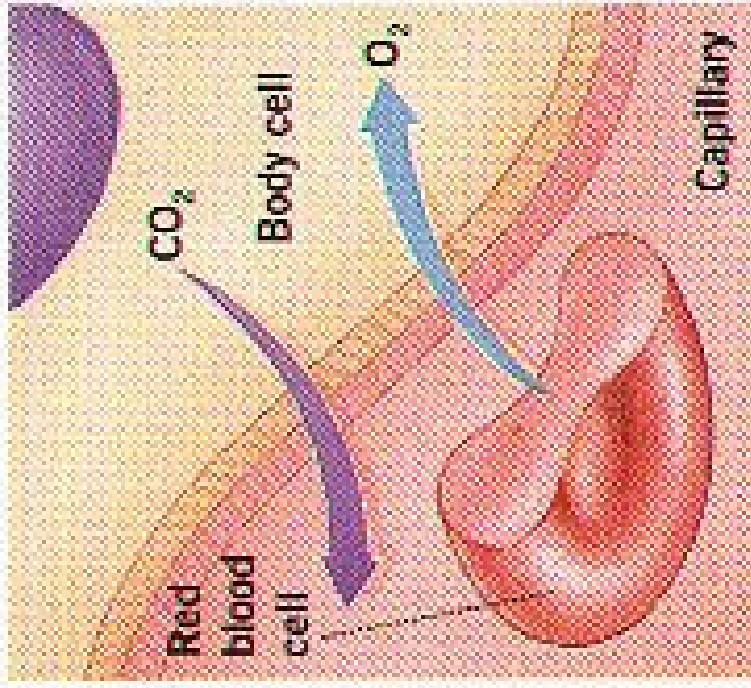
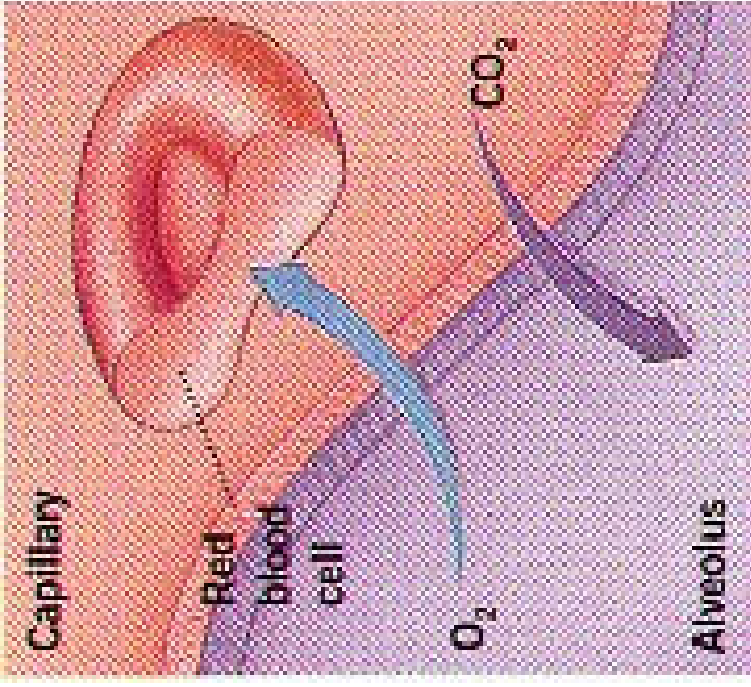


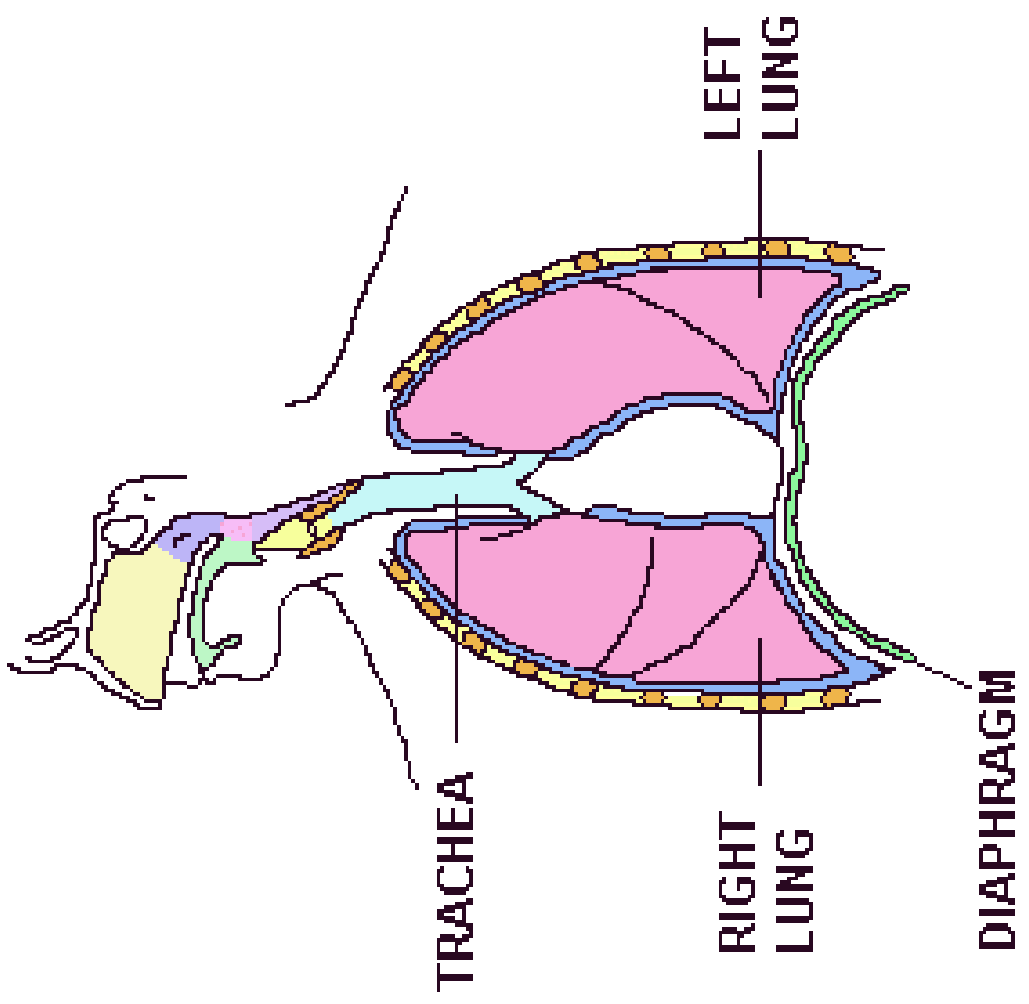
Alveoli

Surfactant

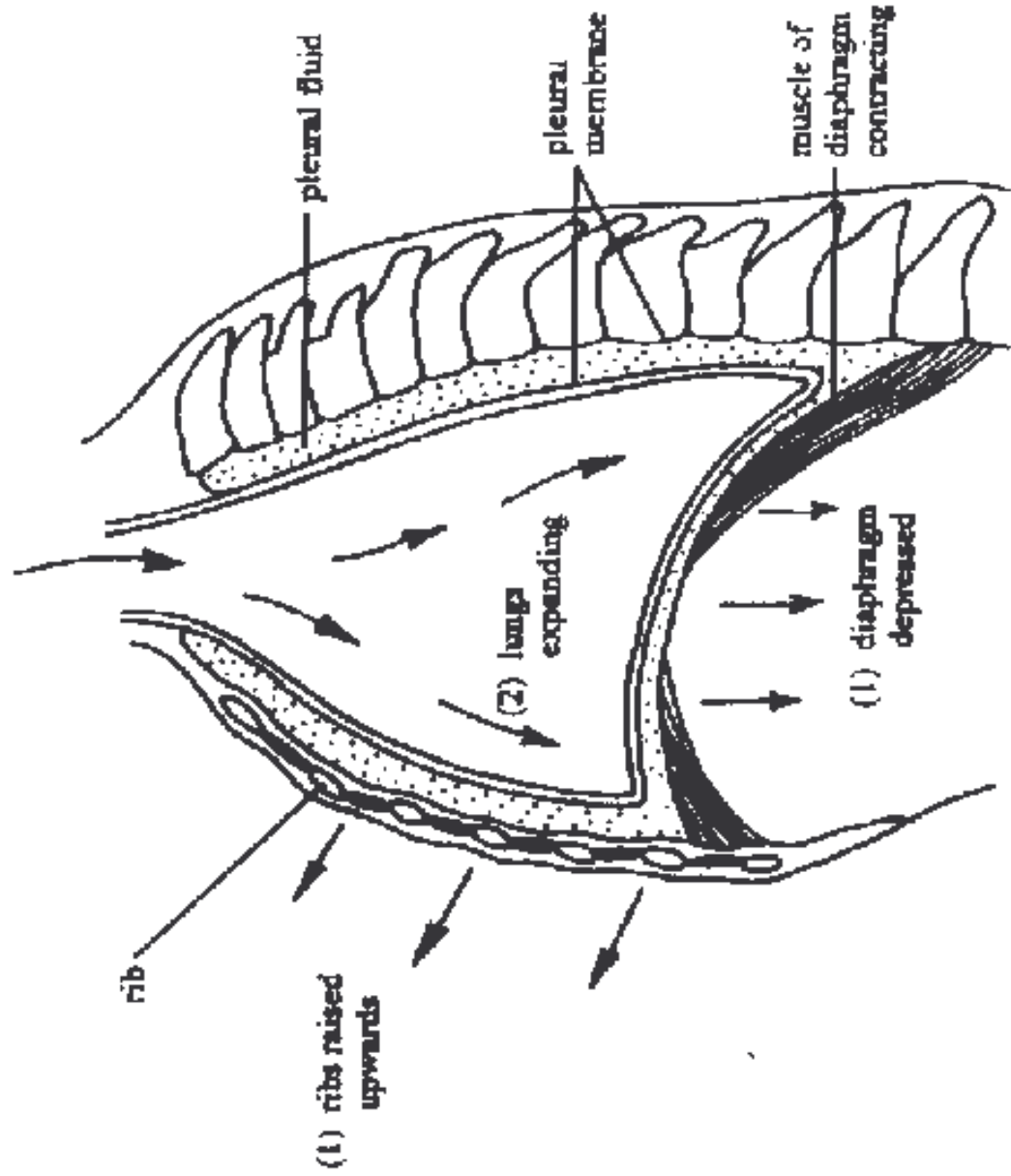
This essential fluid is produced by the Type II alveolar cells, and lines the alveoli and smallest bronchioles. Surfactant reduces surface tension throughout the lung, thereby contributing to its general compliance. It is also important because it stabilizes the alveoli.



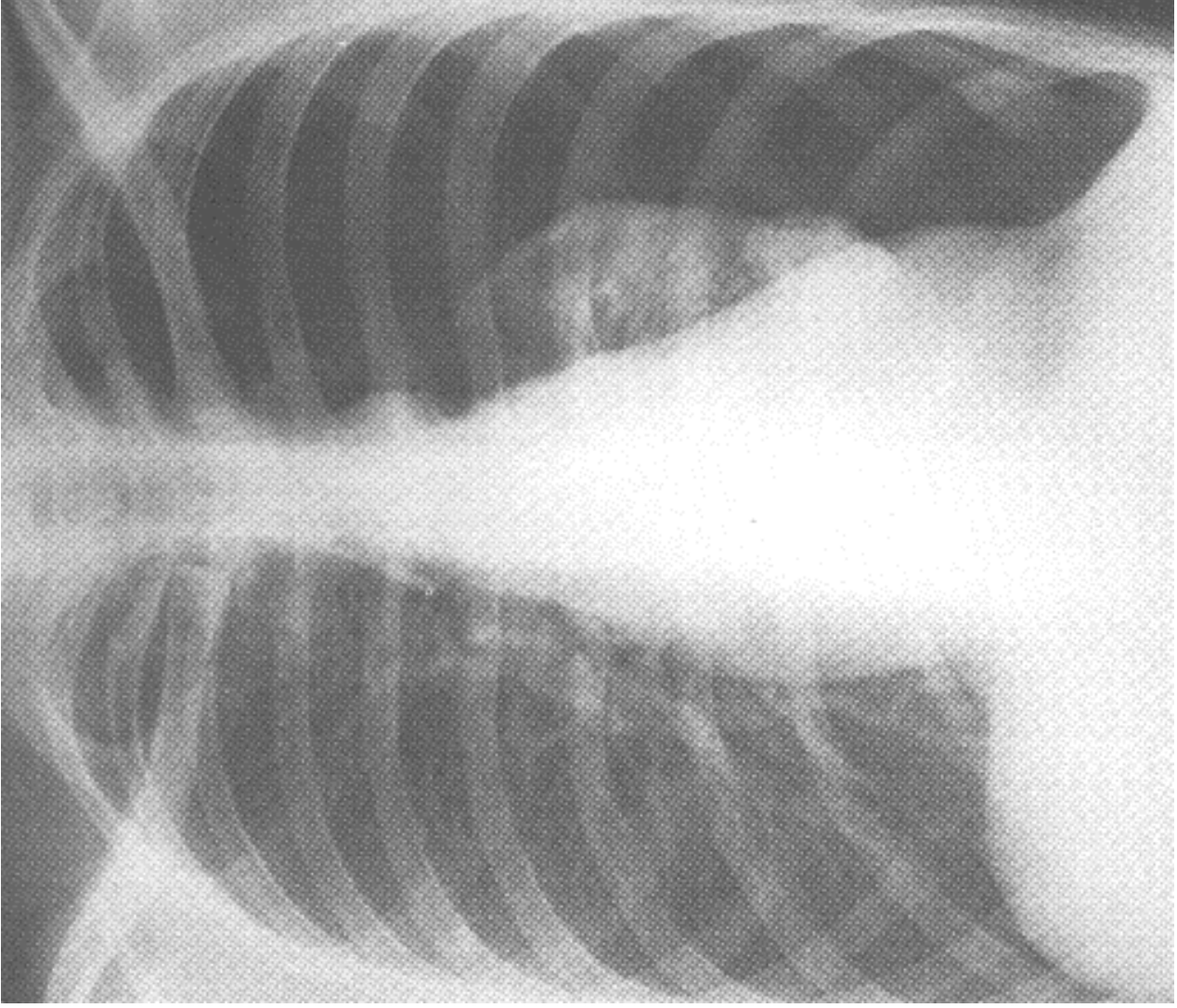




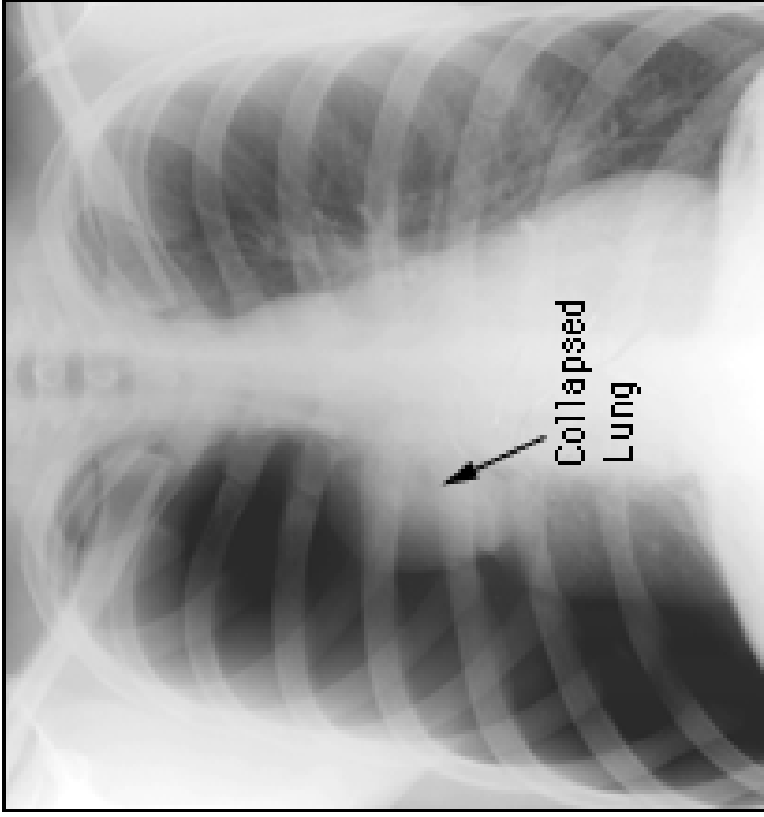
(3) air drawn in along air passage



Pneumothorax



Pneumothorax



Right lung pneumothorax - Radiograph



Right lung pneumothorax - CT