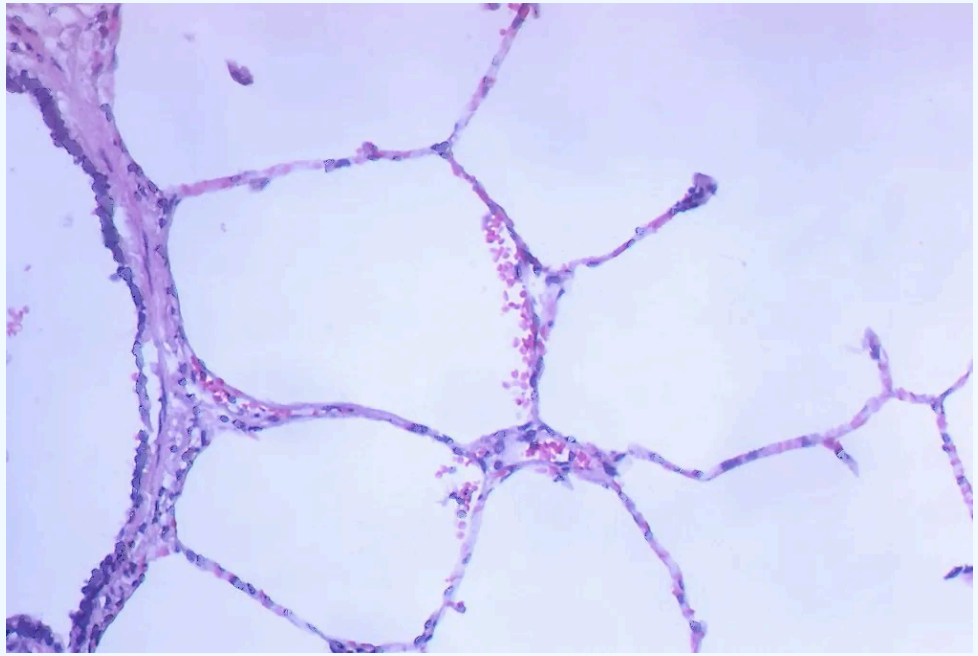
Biology 20

Unit D: Human body systems

Breathing and lung health

Two arrows at a thin wall

- A green oxygen arrow runs from the air sac into the blood.
- An orange carbon dioxide arrow runs from the blood into the air sac.



Breathing and gas exchange

- The diaphragm and rib muscles change the chest size.
- Gas exchange at the alveolus loads oxygen and unloads carbon dioxide.
- Breathing also helps heat leave and helps clear foreign material.

Key terms

alveolus

A thin air sac in the lung where oxygen and carbon dioxide cross with the blood.

gas exchange

The swap of oxygen into blood and carbon dioxide out of blood at the alveolus.

diaphragm

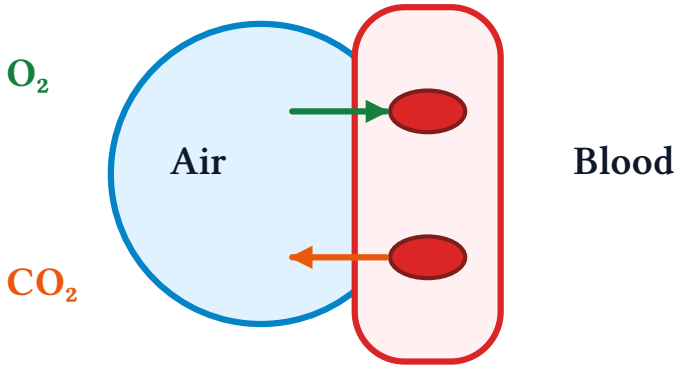
The muscle sheet under the lungs that contracts to enlarge the chest during a breath in.

irradiation

A food treatment that uses radiation to slow spoilage by microbes.

Gases cross at the alveolus

- Oxygen is the arrow aimed at the red blood cells.
- Carbon dioxide is the arrow aimed at the air.
- The caption says the gases cross the shared thin wall.



Gases cross the shared thin wall

Smoking data and technology

- Smoke damages cilia and the walls of alveoli.
- Second-hand smoke exposes people who share the air.

Trusted community sources

- Ranchers and Indigenous hunters have read animal droppings for health clues.
- A respiratory remedy needs a named nation and a community-approved source.

Lungs and sources

- Describe gas exchange and one breathing muscle.
- State one limit of smoking technology and one source rule.

The blood has to move next

- Oxygen that entered the blood still needs a pump.
- The heart circuits are the next map.

Image credits

Yale Rosen from USA, Normal lung, CC BY-SA 2.0