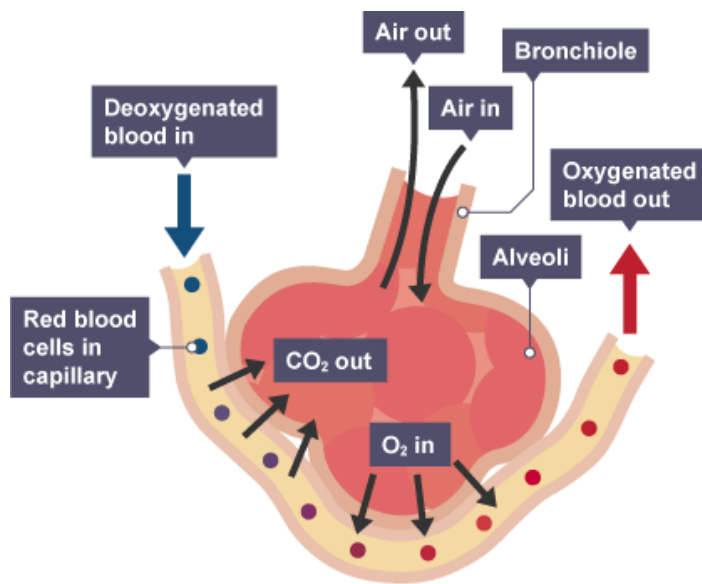


The structure of an alveolus



The adaptations of alveoli for gas exchange

- large surface area
- thin wall
- moist lining
- rich blood supply

The percentage composition of inspired air

- oxygen: 21%
- carbon dioxide: 0.04%
- nitrogen: 79%
- water vapour: varies

The percentage composition of expired air

- oxygen: 16%
- carbon dioxide: 4%
- nitrogen: 79%
- water vapour: saturated

The use of lime water to indicate the presence of carbon dioxide

- uses a simple 'huff and puff' apparatus
- Lime water goes cloudy in the presence of carbon dioxide.

Cigarettes

- increase the risk of disease in the respiratory system
- contain nicotine, which is addictive
- (smoke) have chemicals that paralyse cilia and have particles that clog mucus, which prevents their function
- (smoke) destroy lung tissue, leading to emphysema
- (tobacco smoke) has tar, which contains carcinogens, which lead to lung cancer