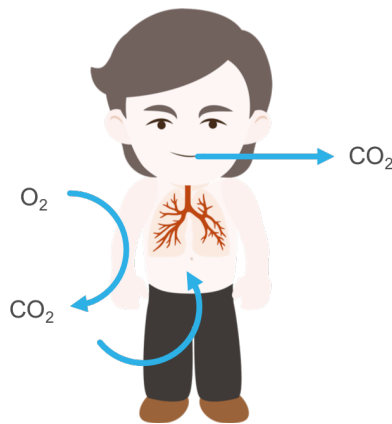


## Airway and ventilation

# USING END-TIDAL CAPNOMETRY

Carbon dioxide is produced in cells, circulated to the lungs, then expired.



Therefore, with a consistent rate of CO<sub>2</sub> production and ventilation, end-tidal expired CO<sub>2</sub> is a surrogate measurement for circulation. Increasing dead space from poor lung perfusion results in lower expired CO<sub>2</sub> (ETCO<sub>2</sub>).



*Increased perfusion = increased ETCO<sub>2</sub>*

End-tidal CO<sub>2</sub> can also be used to monitor respiratory status and watch for hypopnea or apnea in patients at risk for respiratory insufficiency. When using capnometry, apnea will be immediately apparent, in contrast to monitoring with pulseoximetry, which has a significant delay after apnea, especially if supplemental oxygen is used. In addition, hypopnea or CO<sub>2</sub> retention can be detected by end-tidal CO<sub>2</sub> monitoring.

