

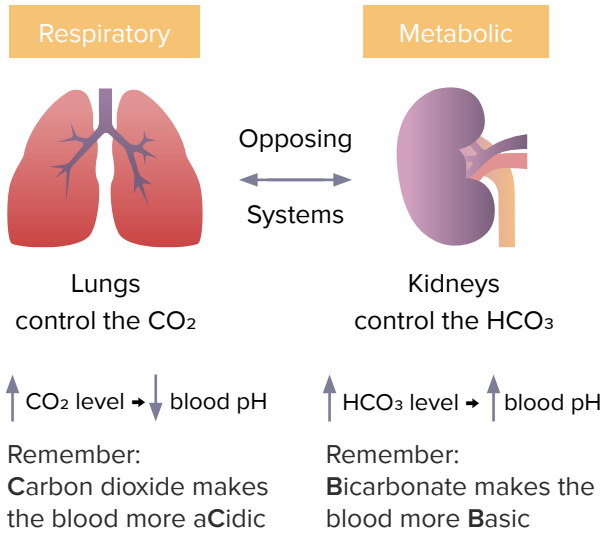
ABG INTERPRETATION



Normal ABG Values:

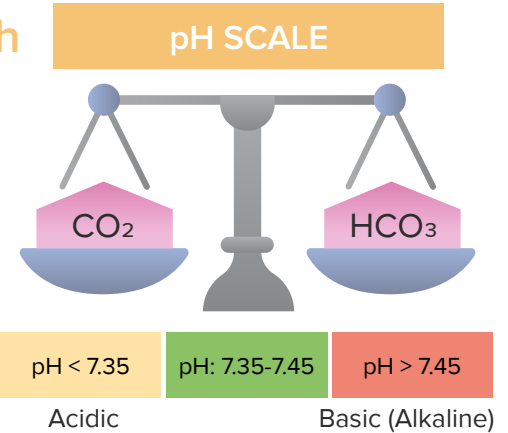
pH: 7.35 - 7.45
 CO₂: 35 - 45 mmHG
 HCO₃: 22 - 26 mEq/L

Compensatory mechanisms:



Think through this:

What would happen to the "pH scale" if there was more CO₂ than HCO₃?



Step 4 Match the pH label with HCO₃ or CO₂ and determine system at fault

	Match	System at fault	Diagnosis
Alkaline	pH CO ₂	Lungs	Respiratory Alkalosis
Acidic	pH CO ₂	Lungs	Respiratory Acidosis
Alkaline	pH HCO ₃	Kidneys	Metabolic Alkalosis
Acidic	pH HCO ₃	Kidneys	Metabolic Acidosis

ABG interpretation in 5 steps:

pH	7.51
PaCO ₂	52
HCO ₃	31

Interpret the patient's ABGs

Step 1 - 3 Check pH, CO₂, HCO₃ and label

1. pH → high = alkaline
2. CO₂ → high = acidic
3. HCO₃ → high = alkaline

Step 5 Determine if the body is trying to compensate (correct the imbalance)

Opposing system in normal range?	pH in normal range?	Diagnosis
Yes	No	Uncompensated
No	No	Partially compensated
No	Yes	Fully compensated

Interpretation: Partially compensated metabolic alkalosis



EXAM HINT:

Kussmaul breathing (deep, rapid breathing) is the lung's way of responding to extreme acidosis by blowing off CO₂.

NOTES

