

ABG Interpretation Chart

Patient Information

Name:

Age:

Gender:

Date:

ABG Results

pH: _____ (Normal Range: 7.35-7.45)

PaCO₂: _____ mmHg (Normal Range: 35-45 mmHg)

PaO₂: _____ mmHg (Normal Range: 80-100 mmHg)

HCO₃⁻: _____ mEq/L (Normal Range: 22-26 mEq/L)

SaO₂: _____ % (Normal Range: 95-99%)

Interpretation

1. Assess pH:

Acidosis: pH < 7.35

Alkalosis: pH > 7.45

2. Assess PaCO₂ and HCO₃⁻:

Respiratory Acidosis: ↓pH, ↑PaCO₂, Normal HCO₃⁻

Respiratory Alkalosis: ↑pH, ↓PaCO₂, Normal HCO₃⁻

Metabolic Acidosis: ↓pH, Normal PaCO₂, ↓HCO₃⁻

Metabolic Alkalosis: ↑pH, Normal PaCO₂, ↑HCO₃⁻

3. Evaluate Compensation:

Partially Compensated: All three values (pH, PaCO₂, HCO₃⁻) are abnormal

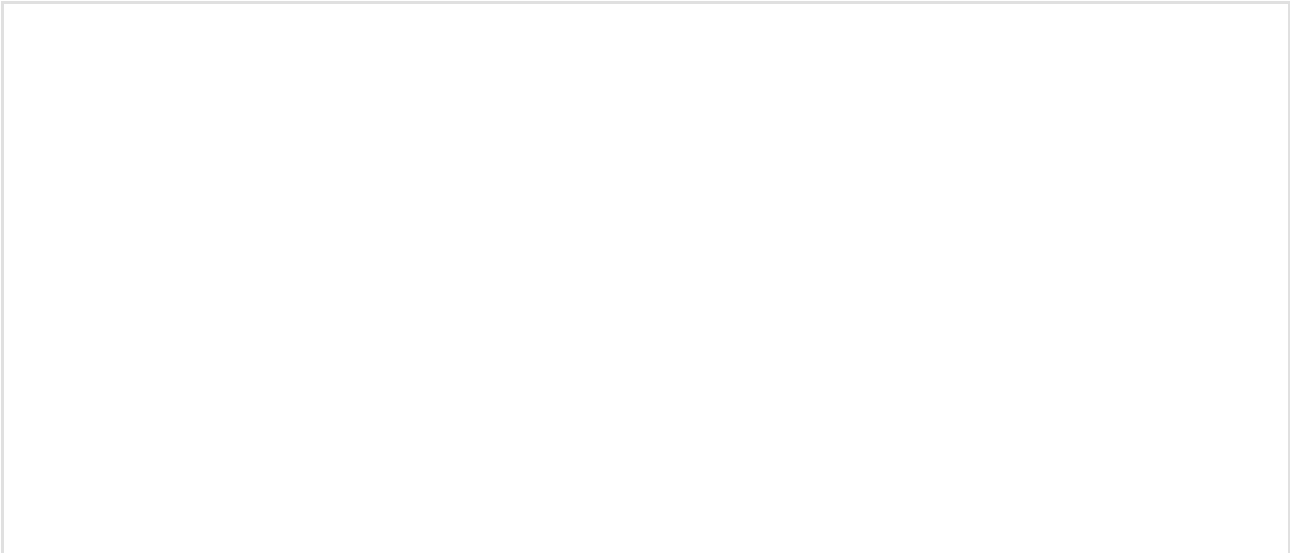
Fully Compensated: Normal pH with abnormal PaCO₂ and HCO₃⁻

4. Assess Oxygenation:Hypoxemia: PaO₂ < 80 mmHgNormoxemia: PaO₂ between 80-100 mmHgHyperoxemia: PaO₂ > 100 mmHg**5. Assess Ventilation:**Hypoventilation: ↑PaCO₂Normal Ventilation: PaCO₂ within normal rangeHyperventilation: ↓PaCO₂

	Acidosis	Normal	Alkalosis
Respiratory Acidosis	↓pH, ↑PaCO ₂ , Normal HCO ₃ ⁻	Normal pH, ↑PaCO ₂ , ↑HCO ₃	↑pH, ↓PaCO ₂ , Normal HCO ₃ ⁻
Respiratory Alkalosis	↑pH, ↓PaCO ₂ , Normal HCO ₃ ⁻	Normal pH, ↓PaCO ₂ , ↓HCO ₃	↑pH, ↓PaCO ₂ , Normal HCO ₃ ⁻
Metabolic Acidosis	↓pH, Normal PaCO ₂ , ↓HCO ₃ ⁻	Normal pH, ↓PaCO ₂ , ↓HCO ₃	↑pH, Normal PaCO ₂ , ↑HCO ₃ ⁻
Metabolic Alkalosis	↓pH, Normal PaCO ₂ , ↑HCO ₃ ⁻	Normal pH, ↑PaCO ₂ , ↑HCO ₃	↑pH, Normal PaCO ₂ , ↑HCO ₃ ⁻

Interpretation Summary:

Notes:

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