

# ABG ANALYSIS

Normal ABG Values	
pH	7.35-7.45
PaCO <sub>2</sub>	35-45 mmHg
HCO <sub>3</sub> <sup>-</sup>	22-26 mEq/L
PaO <sub>2</sub>	80-100 mmHg

DISORDER	CAUSES	ASSESSMENT FINDINGS	TREATMENTS
Respiratory Acidosis pH < 7.35; PaCO <sub>2</sub> > 45	Hypoventilation -CNS depression -Pulmonary edema -Respiratory arrest -Airway obstruction	-Bradycardia -Hypotension -Confusion -Somnolence	-Increase RR -Reposition patient -Maintain patent airway -Mechanical ventilation - ↑ Rate - ↑ Vt
Respiratory Alkalosis pH > 7.45; PaCO <sub>2</sub> < 35	Hyperventilation -Excessive mechanical ventilation -Anxiety -Fever -Pneumothorax	-Tachycardia -Palpitations -Anxiety -Seizures -Perspiration/diaphoresis	-Decrease RR -Administer sedatives -Rebreather mask -Mechanical ventilation - ↓ RR - Sedation - ↓ Vt
Metabolic Acidosis pH < 7.35; HCO <sub>3</sub> < 22	Acid Gain -Shock -Ketoacidosis -Renal failure Bicarbonate loss -Diarrhea -Bile drainage	-Nausea/vomiting -Malaise -Tachypnea -Hypotension -Confusion	-Improve oxygenation -Treat Cause -DKA -Diarrhea -Renal failure
Metabolic Alkalosis pH > 7.45; HCO <sub>3</sub> > 26	Acid Loss -Vomiting -Potassium loss (diuretic use) -Hyperaldosteronism - Cushing's - Steroids - Bicarbonate gain	- Nausea/vomiting/diarrhea -Confusion -Seizures -Tetany	-Administer buffer -Treat cause