

Respiratory acidosis: Increased PaCO₂ and decreased pH

Head trauma
Over sedation/Drug OD
Neuromuscular disorders
COPD
Respiratory arrest
Pneumonia
Atelectasis

Respiratory alkalosis: Decrease PaCO₂ and increased pH

Pregnancy & labor
Pulmonary emboli
Acute asthma
Nervousness, anxiety, fear
High altitude
Mechanical Ventilation

Metabolic Acidosis: Decreased pH and HCO₃

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Diabetic ketoacidosis
Renal insufficiency or failure
Incomplete metabolism of carbohydrates (lactic acidosis)
Salicylate intoxication
Severe diarrhea/Fistulas
Malnutrition or high fat diet
Liver failure

Metabolic Alkalosis: Increased pH and HCO₃

Excessive vomiting
Ingestion of excess sodium bicarbonate
Prolonged gastric lavage
Administration of potent diuretics