

Shock states, can lead to decreased blood volume and perfusion, leading to increased respiratory drive. This translates into an increased respiratory rate, which causes CO₂ to blow off rapidly, leading to respiratory alkalosis.

Lightheadedness

Light-head

Low levels of carbon dioxide in the blood can lead to feeling lightheaded or dizzy.

Tingling Lips or Fingers

Pins and Needles on Lips and Fingers

Patients may experience numbness or tingling of the lips, hands, or feet.

Trousseau's

Truce-handshake

Because respiratory alkalosis causes a decrease in ionized calcium, Trousseau's sign may be observed. To test for this, begin by placing a blood pressure cuff around the upper arm, inflate the cuff to greater than the patient's systolic pressure, and keep it inflated for 1-4 minutes. Under these hypoxic conditions, a positive Trousseau's sign occurs when the hand and fingers go into spasm in palmar flexion.

Chvostek's Sign

Chopsticks

Because respiratory alkalosis causes a decrease in ionized calcium, Chvostek's sign may be observed. To test for this, tap directly on the facial nerve in front of the mastoid bone to trigger facial twitching of one side of the mouth, nose, and cheek. Twitching of the facial muscles is a positive sign of hypocalcemia.

Anxiety

Anxiety-bag

An acute anxiety attack can result in a rapid and severe hyperventilation respiratory response which can result in significant amounts of CO₂ loss and quick onset of alkalosis. The patient may also begin to experience tachycardia due to the anxiety.