

SODIUM BICARBONATE

Description

Sodium bicarbonate is an alkalotic solution, which neutralizes acids found in the body. Acids are increased when body tissues become hypoxic due to cardiac or respiratory arrest.

Indications

- Tricyclic overdose with arrhythmias, widened QRS complex or hypotension.
 - Suspected hyperkalemic pulseless arrest: consider in patients with known renal failure/dialysis.
 - Hyperactive delirium with severe agitation that develops widening QRS > 120 msec or pulseless arrest
 - Crush or suspension injury with known or suspected hyperkalemia
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Contraindications

- Metabolic and respiratory alkalosis
 - Hypocalcemia
 - Hypokalemia
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Adverse Reactions

- Metabolic alkalosis
 - Paradoxical cerebral intracellular acidosis
 - Sodium bolus can lead to volume overload
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Dosage and Administration**Adults and children (>10 kg)**

- 1 mEq/kg slow IV push. Repeat as needed x 2 every 5 minutes
 - Benadryl or Na Channel Blocker Overdose- **CONTACT BASE**
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Drug Interactions

- May precipitate in calcium solutions
 - Alkalinization of urine may increase half-lives of certain drugs
 - Vasopressors may be deactivated
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Special Considerations

- Sodium bicarbonate administration increases CO₂ which rapidly enters cells, causing a paradoxical intracellular acidosis.
- Sodium bicarbonate is no longer recommended for routine use in prolonged cardiac arrest. Its use in pulseless arrest should be limited to known or suspected hyperkalemia (e.g. dialysis patient), or arrest following tricyclic overdose.