



**El Dorado County Emergency Medical  
Services Agency**  
Quick Reference

Revised Date: July 1, 2020

**Medication Profile**

**Sodium Bicarbonate**

**Class:**

Alkalotic agent  
Electrolyte

**Action:**

Sodium bicarbonate reacts with hydrogen ions (H<sup>+</sup>) to form water and carbon dioxide and acts by buffering metabolic acids present in the body during and after severe hypoxia and/or inadequate tissue perfusion.

**Onset:** Immediate

**Peak:** Immediate

**Duration:** Unknown

**Adult Administration:**

- Cardiac Arrest/Tricyclic Overdose
  - 1mEq/kg IV/IO push. May repeat ½ initial dose every 10-15 minutes
- Crush Syndrome
  - 1mEq/kg IV/IO push (Max dose 100mEq)

**Pediatric Administration:**

- Cardiac Arrest
  - 1mEq/kg IV/IO push. May repeat ½ initial dose every 10-15 minutes
- Tricyclic Overdose
  - 1mEq/kg IV/IO push. May repeat ½ initial dose every 10-15 minutes
  - Per Base MD Order
- Crush Syndrome
  - 1mEq/kg IV/IO push (Max dose 100mEq)
  - Per Base MD Order

**Indications:**

- Crush injury
- Cardio Pulmonary arrest when therapy

And/or defibrillation has not been successful

- Overdose of tricyclic antidepressants

**Contraindications:**

Not significant

**Side Effects:**

CNS: Dizziness, headache, irritability, twitching, weakness, brain cell injury, seizures

RESP: Pulmonary edema, hypoventilation

GI: Gastric distention, anorexia, cramps, nausea, vomiting

GU: Renal calculi, impaired renal function, dehydration MS:  
Muscle cramps, pain, tetany  
INTEG: Tissue sloughing at injection site with extravasation

**Notes:**

- Flush IV tubing before and after administration