

RX

Drug Name: Calcium Chloride
Trade Name: Calcium Chloride, Calcium, CaCl₂
REVISED: November 1, 2017
Class:

- Electrolyte replacement

Mechanism of Action:

- Increase the force of cardiac contractility, by initiating myofibril shortening
- In normally functioning hearts calcium will produce positive inotropic and vasoconstrictive effects and increase systemic arterial blood pressure
- In abnormally functioning hearts calcium will produce positive inotropic effects may increase or decrease systemic vascular resistance
- It also appears to increase ventricular automaticity

Indications:

- Hyperkalemia
- Hypermagnesemia (Antidote for respiratory depression due to MgSO₄ administration)
- Hypocalcemia (Ca Blocker Overdose)

Contraindications:

- Hypercalcemia
- Digitalis toxicity
- VF during resuscitation

Precautions:

- May induce digitalis toxicity in patients receiving digoxin
- Can cause tissue necrosis & sloughing
- Pregnancy (C)
- Respiratory disease
- Cor pulmonale
- Respiratory Failure

Dosage:

Adults:

- Hyperkalemia, Asystole/PEA with suspected hyperkalemia, and Calcium Channel BLOCKER Overdose--500-1000 mg slow IV push

Pediatrics:

- 20 mg/kg infused slowly over 10 minutes (no faster than 100 mg/min)
Max--1 g / dose

Onset:

- 5-15 minutes

Duration:

- Dose dependent (effects may persist for 4 hrs. after IV administration)

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This document is for **reference only**. Please refer to SWO's for specific indications, dosages, and applications

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Side Effects:

- Metallic taste
- Burning
- "Heat waves"
- Bradycardia (may cause asystole)
- Hypotension
- Cardiac arrhythmias
- Increased digitalis toxicity
- Extravasation with necrosis and sloughing
- Vasospasm in coronary and cerebral arteries.
- N/V

Interactions:

- Precipitates with sodium bicarbonate, epinephrine and potassium phosphate
- When given to a patient on Digoxin, can cause elevated Digoxin levels and possibly digitalis toxicity
- May antagonize the effects of Verapamil

PEARLS:

- ***Standard medical control and deviation guidelines apply unless otherwise stated.***
- ***To prevent tissue necrosis, make sure to administer the drug through an IV that is patent and flowing well.***
- ***Flush well between administration of calcium & sodium bicarb to avoid precipitate.***
- ***May sometimes be requested by medical control to be co-administered with Cardizem to offset hypotension in hypotensive patients.***

REFERENCE ONLY