

Calcium Chloride

GENERIC NAME

Calcium Chloride

TRADE NAME

None

DESCRIPTION

Calcium chloride provides elemental calcium in the form of the cation (Ca^{++}). Calcium is essential for many physiological activities, including muscle contraction and neurotransmitter release.

HOW SUPPLIED

Prefilled syringe: 1 gm/10 ml

INDICATIONS

- Calcium channel blocker toxicity (e.g., overdose of drugs such as Nifedipine, Verapamil).
- Hyperkalemia

CONTRAINDICATIONS

- Hypersensitivity or allergy

PRECAUTIONS

1. Calcium chloride can cause severe local necrosis if IV infiltration occurs.
2. Calcium chloride can precipitate when mixed with certain drugs, notably Sodium bicarbonate. Always flush the IV line with 10-20 ml of IV fluid after administering Calcium chloride and before administering any other medication.

MECHANISM OF ACTION

1. Increases myocardial contractility significantly and may enhance ventricular automaticity.
2. Mitigates the hypotensive effects of calcium channel blocker drugs.

3. Pediatric patients require a higher dose due to faster calcium metabolism.

SIDE EFFECTS

- Bradycardia
- Arrhythmias

AUTHORIZATION

EMT: Not authorized

AEMT: Not authorized

Paramedic: Standing order

DOSAGE

- **Adult:** 10 mg/kg (0.1 ml/kg) IV/IO push
- **Pediatric:** 20 mg/kg (0.2 ml/kg) IV/IO push

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