



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

Revised Date: July 1, 2022

**Medication Profile**

**Magnesium Sulfate**  
(MgSO<sub>4</sub>)

**Class:**

Antidysrhythmic, Electrolyte

**Action:**

Controls ventricle response rate.

Increases the movement of potassium into cells.

Blocks the release of acetylcholine

**Onset:** Immediate

**Peak:** Variable

**Duration:** 3-4 hours

**Adult Administration:**

- Torsades De Pointe pulseless:
  - 2g in 10mL NS IV/IO bolus
- Torsades De Pointe with a pulse:
  - 2g in 10mL NS IV/IO push over 1-2minutes.
- Bronchospasm
  - 2g in 100mL NS IV/IO over 20 minutes
- Eclampsia
  - 6grams in 10mL NS IV/IO push over 15minutes. Base MD Order.

**Pediatric Administration:**

- Not recommended for prehospital use

**Indications:**

Seizures related to eclampsia

Torsades De Pointe

- Vfib, Pulseless V-Tach
- V-Tach with a pulse
- Post conversion of VF/VT

**Contraindications:**

Hypersensitivity

Sinus Bradycardia

Pediatrics

**Side Effects:**

- Hypotension
- Hypertension
- Dysrhythmias
- Facial flushing
- Diaphoresis
- Depressed Reflexes

- Bradycardia

**Pregnancy:**

Category A

**Notes:**

- Magnesium is a naturally occurring positive ion present in all cells of the body.
- Check deep tendon reflexes every 15 minutes and continuously monitor respirations.
- Discontinue administration if either become depressed.