

## Calcium Gluconate

### Usual Diluents

D5W, NS

### Standard Dilution [Amount of drug] [Infusion volume] [Infusion rate]

[1 to 4 grams] [50 - 100 ml] [See [comments](#)]\*

#### Alternatively:

[1 gram ] [50 ml ] [1 hour ^]

[2 grams ] [100 ml ] [2 hours ^]

\*Dilutions assume peripheral line is used as well as D5W as the primary diluent

^Actual infusion times should be based on serial calcium levels, severity of the deficit, current phosphate level (possible metastatic calcification), and the clinical presentation of the patient (acute versus chronic; symptoms present; etc.).

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[Treatment](#) of emergent (acute symptomatic) patient.

[The injection should be halted if the patient complains of any discomfort; it may be resumed when symptoms disappear. Following injection, the patient should remain recumbent for a short time.]

**Calcium Gluconate: Maximum rate:** 1.5 mL/minute = 0.7 meq/minute.

Smaller volumes may be used in patients with a central line. Actual infusion rates should be based on the severity of the deficit. In non-emergent cases (asymptomatic patients), oral therapy is preferred.

-Serum calcium levels should be measured every 2 to 6 hours to guide continued therapy. If the patient has a low serum albumin level, ionized calcium should be monitored.

-The following patients need continuous ECG monitoring during calcium infusions: (1) Patient's with cardiac arrhythmias or (2) Patients receiving digoxin therapy.

Continuous infusion: Initially multiply ( 0.5 x Wt (kg) X 24 ) / 93 mg = number of grams of calcium gluconate needed. Add calculated amount to 500 to 1000 ml D5W or NS. A continuous infusion may be used in symptomatic patients with hypocalcemia. Infusion rate: 0.3 to 2 mg/kg/hr based on elemental calcium. The actual rate should be based on serial plasma calcium levels.

**Stability / Miscellaneous**

I.V.: Store at 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F).

Usual concentrations: 1 g/100 mL D<sub>5</sub>W or NS; 2 g/100 mL D<sub>5</sub>W or NS.