

Medication: D ₅₀ W	PDN: 6915.04	Last Updated: August 21 2025	PMD: Andrew Travers*	PDC: Tanya Fraser*	Page 1 of 2
--------------------------------------	---------------------	----------------------------------------	--------------------------------	------------------------------	-------------

D₅₀W

1.0 Classification

- Carbohydrate

2.0 Mechanism of Action

- Increases blood glucose

3.0 Indications

- Patients with signs of hypoglycemia and a blood glucose level less than 4.0 mmol/L who are unable to take oral glucose.

4.0 Contraindications

- None

5.0 Precautions

- Extravasation of D₅₀W may lead to tissue necrosis and can be catastrophic, ensure the IV line is patent prior to dextrose administration.

6.0 Route

- May be given IV/IO

7.0 Dosage

Adult

- 25 g (50 mL) of dextrose.
- A second dose may be given if symptoms do not resolve and glucometer reading remains less than 4.0 mmol/L.

Pediatric

- 0.5 g/kg which is 2 mL/kg of D₂₅W.
- A second dose may be given if symptoms do not resolve and glucometer reading remains less than 4.0 mmol/L.
- Maximum total dose of 25 g.

8.0 Supplied

- 25 g in 50 mL preloaded syringe
- 25 g in 50 mL vial

9.0 May Be Given By

- PCP/ACP/CCP

10.0 Adverse Effects

- Hyperglycemia

To make a D₂₅W solution from D₅₀W: Dispose of 25 mL of the D₅₀W solution from the preloaded syringe and replace with 25 mL of normal saline.

OR

Draw 25 mL of the D₅₀W solution from the 50 mL vial using a 50 mL syringe and vial access spike, then add 25 mL of normal saline.

11.0 Special Notes

- Hypoglycemia for non-diabetic children is different.
 - Neonate < 2.5 mmol/L
 - Infant/Pediatric < 3.3 mmol/L
- Localized irritation can occur when a small vein is used; attempt to administer through an IV located in a larger vein.
- 25 g of D₅₀W should increase the blood sugar by approximately 5-6 mmol/L.
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References

- Altered Level of Consciousness Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

Copyright © Emergency Health Services