

Glucagon and Diabetes

What is glucagon?

- Glucagon is a hormone that causes the liver to release stored glucose (sugar). The glucose then raises the blood sugar.
- It is used to treat severe low blood sugar.
- Glucagon must be injected.
- Glucagon begins to raise the blood sugar level within 2 to 10 minutes after it is given.

Who would use glucagon?

- Anyone who uses insulin, especially someone with type 1 diabetes, is at risk for a severe low blood sugar and should have glucagon nearby.
- Symptoms of severe low blood sugar include:
 - confusion
 - drowsiness
 - trouble thinking and remembering
 - loss of consciousness
 - convulsions, seizures
 - not able to treat the symptoms yourself

When is glucagon used?

- Glucagon is used when a person with diabetes is not able to swallow or take sugar by mouth to treat a low blood sugar.
- Glucagon should be injected by someone who knows how to draw up and give the injection.
- Once mixed, glucagon must be used or thrown out within 48 hours.

How do I treat a person with diabetes who is unconscious or convulsing?

- Do not force food or liquid into the person's mouth.
1. Lay the person on his or her side in a safe place.
 2. Mix and draw up the glucagon as per the package instructions.
 3. Inject the full dose in the buttocks, thighs, or arms, like an insulin injection.
 4. Call 911 if the person does not respond in 10 minutes, you feel that you need help, or the person has severe nausea and/or vomiting and can't eat.
 5. Give the person 1 cup of juice or regular pop once awake. Wait 15 minutes and then offer a snack of starch and protein (for example, crackers and cheese).
 6. Check the person's blood sugar every hour until it is stable.

Tell your family doctor, diabetes specialist, or diabetes educators about the severe low blood sugar after the emergency is over. Insulin doses may need to be reduced after a severe low blood sugar.

Does glucagon have any side effects?

- The person may have nausea, vomiting, and/or a headache (these could also be from the severe low blood sugar).

What else do I need to know about glucagon?

- Family and friends should always know where the glucagon is kept. They should review how to give glucagon once in a while.
- Carry glucagon when away from home (for example, when on vacation), especially if you will not be close to a healthcare centre.
- Glucagon expires so be sure to check the expiry date. Check the expiry date before you leave the pharmacy as it should have at least 6 to 12 months before it expires.
- You do not need a prescription for glucagon. However, it costs a lot of money (\$100.00 to \$150.00). Ask your doctor for a prescription so your insurance plan can cover it.

How can I prevent low blood sugar?

- Adjust your food and/or insulin when you exercise.
- Check your blood sugar in the middle of the night after an active day or evening.
- Decrease insulin doses if you see a pattern of low blood sugars.
- Alcohol affects your blood sugar. Always eat food when having alcohol and test your blood sugar before bedtime.
- Try not to miss your usual meals or snacks.
- If you have any questions or concerns, please speak to your diabetes educator or doctor.

This material is for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have questions, speak with your doctor or appropriate healthcare provider.