

## Glucagon

Glucagon is a hormone made by the pancreas that raises blood sugar. It makes the liver release stored sugar into the blood which raises blood sugar. It is used to treat severe low blood sugar reactions. It can take 15-20 minutes to take effect after being given. Glucagon is needed when a person:

- Cannot safely swallow.
- Is unconscious.
- Is having a seizure.
- Has not improved after eating foods or liquids with sugar.
- Needs the help of another person to treat a low blood sugar.

### Who Should Learn to Give Glucagon

A family member, friend and/or co-worker must know how to give glucagon in case of an emergency. Think of people who would give it to you at home, at work or school, and while exercising or during sporting events. These people must be trained. For your safety, glucagon must be available, and someone needs to know how to give it whenever you need it.

### Warnings

If you are pregnant, breastfeeding, have a tumor of the pancreas, or have adrenal gland tumors, talk with your doctor before using glucagon.

### Forms of Glucagon

Glucagon comes in three forms listed below. Check with your health care team to decide which form is best for you.

1. Emergency injection kit
2. Pre-mixed injector (Gvoke™)
3. Nasal spray (Baqsimi®)

### How to Give Glucagon

Steps for giving glucagon vary based on the form of glucagon you have.

**Emergency injection kit:** The kit contains a small bottle with a white tablet and a syringe filled with liquid. The liquid is injected into the vial to dissolve the tablet. The clear liquid is then drawn up into the syringe and injected. Your health care team will tell you the dose to give. It is based on weight.



**Pre-mixed injector (Gvoke™):** This comes in a prefilled syringe or an auto-injector. These devices are filled with medicine that is ready to be injected. The dose is based on weight. Remove the device from the package and inject as directed. Scan the QR code for more details.



### Nasal spray (Baqsimi®):

This dry, powdered form of glucagon is sprayed into the nose. To use, remove the device from the plastic container. Grip between your thumb and fingers. Hold the applicator so that it touches the opening of one side of the nose. Push the bottom button all the way in. The powder is absorbed in the nose. You do not need to inhale for the glucagon to work. Scan the QR code for more details.



### After Giving Glucagon

Call 911 for help. Don't wait to see if the person responds to the medicine. It may take up to 20 minutes. More treatment at the hospital may or may not be needed.

- Glucagon may cause nausea and vomiting. After giving it, turn the

person onto his or her side. This can prevent choking.

- If the person does not wake up within 15-20 minutes after getting glucagon, a second dose may be given.
- As soon as the person wakes up and can swallow, they should eat something. If nauseous, do not give solid food. Wait until it passes and then give a fast-acting sugar like fruit juice or non-diet soda. The goal is to prevent further low blood sugars.
- Even if the glucagon works, a health care provider should be called.

### After the Reaction

Replace your glucagon as soon as you can. Try to figure out why the low blood sugar happened. Take steps to prevent it in the future. Call your health care team to decide if changes are needed. Common reasons include:

- Diet: skipped or delayed meal; or eating smaller meals or snacks than usual
- Diabetes pills: took wrong dose
- Insulin: took wrong dose or type
- Exercise: exercise without changing insulin doses or eating extra food (exercise can lower the blood sugar up to 24 hours later)

### Storage of Glucagon

Store at room temperature, away from direct light. Do not use after it has expired. If you add the liquid to the bottle with the white pill and do not use it, it must be discarded. Keep glucagon out of reach of children.

### Side Effects of Glucagon

If you have facial flushing or other problems after taking glucagon, talk with your doctor. Call your doctor right away if you faint, develop a skin rash, or have trouble breathing.

### First Aid for Seizures (Convulsions)

Very low blood sugars can cause seizures. When having a seizure, the person may fall, stiffen, and make jerking movements. You will need to treat the low blood sugar and protect the person during the seizure.

- Clear away any objects in the area around the person. **Do not** hold down or restrain the person.
- Lay the person on his or her stomach or side. Turn his or her head to one side. Make sure that nothing is blocking the mouth or nose so that he or she can breathe easily.
- Loosen tight clothing so he or she can breathe and move easily. Put a pillow or a rolled-up towel or coat under the head.
- Do not force anything into the mouth. **Do not** give anything to eat or drink.
- Give glucagon. If giving an injection, hold the person still long enough to give the shot safely. After giving the shot, do not try to stop their seizure movements. The glucagon will often stop a seizure.
- After giving the glucagon, test the blood sugar to see how low it is, if you can. **Do not** attempt to do this if it requires holding the person down.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 11/2023 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#4306