

## GLUCAGON FOR SEVERE LOW BLOOD SUGAR (HYPOGLYCEMIA)

### What is Glucagon?

Glucagon is a hormone made by the pancreas. It is used to treat severe low blood sugar. It raises the blood sugar by sending a signal to the liver to release stored sugar.

### When should I give glucagon?

Use glucagon when the student is having a **severe low blood sugar**. The student may be:

- Unconscious
- Having a seizure
- So uncooperative that you cannot give juice or sugar by mouth

If the student is unconscious or having a seizure turn on his/her side. Call 911 and parents.

### How much glucagon should I give?

| If the Student is:  | Give this much glucagon |
|---------------------|-------------------------|
| 5 years old or less | ½ bottle (0.5mg)        |
| 6 years or older    | Full bottle (1mg)       |

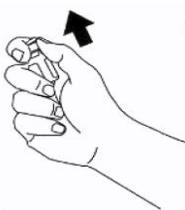
### How do I give glucagon?

You must inject it. You cannot give glucagon by mouth. Glucagon is injected straight into the middle outer thigh. Glucagon comes in a kit that includes:

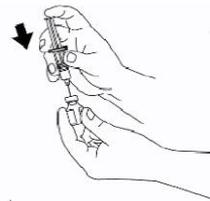
- A small bottle (vial) that contains glucagon - a dry powder.
- A syringe that contains 1mL of sterile liquid

### Follow the steps below:

1. Identify someone to call 911 and the student's parent/guardian.
  - Turn the student on their side.
2. Prepare the Syringe of Glucagon
  - Remove the cap from the bottle.
  - Inject the liquid from the syringe into the dry powder bottle.
  - Remove the syringe from the bottle. Roll the bottle gently to dissolve the powder. Do not shake the bottle.
  - Draw the fluid back into the syringe. Keep the tip of the needle below the level of the fluid.
  - Check for air in the syringe. If there is air in the syringe, expel it by slowly pressing the plunger with the needle pointing upwards.
  - Remove needle from the bottle.



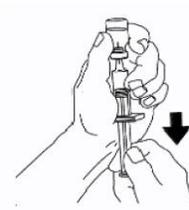
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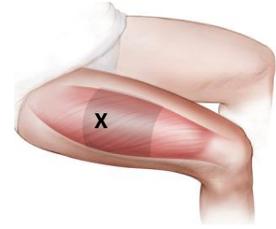
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3. Give the Glucagon injection

- With the student on their side, insert the needle straight (90 degree angle) into the middle outer thigh.
- Push the plunger down to inject the medication.
- Withdraw the needle and apply light pressure at the injections site.
- Do no recap the needle. Discard safely into a sharps container or back into the kit. Send the used kit with the paramedics or parents.



4. While you wait for the ambulance and/or parents

- Always remain with the student until Emergency Medical Services (EMS) arrives. Be prepared to inform EMS of the situation when they arrive.
- The student should remain on their side.
- The student may take 10-20 minutes to respond fully respond. Stay with the student.
- Once the student is alert and able to swallow, give juice or other fast acting sugar.
- After the fast acting sugar, give longer acting carbohydrate such as cheese and crackers. This is to stop the blood sugar from dropping too low again.

5. Follow up with parents to replace the glucagon kit and complete any required documentation.

**Are there any side effects of using glucagon?**

The student may vomit or feel nauseated after a glucagon injection. This can last up to 24 hours.

**Tips:**

- Check the expiry date of the supply of glucagon. Follow up with families to ensure that glucagon nearing its expiry date is replaced.
- Store glucagon between 15-30c (glucagon should **not** be kept in the fridge)
- Keep this handout with the glucagon kit.
- Use the glucagon solution as soon as it is mixed.
- Do not delay giving glucagon if a student is having a seizure. Stabilize the injection site but do not restrain the student's whole body.
- Do not delay giving glucagon to take a blood sugar. If a child is unconscious and/or having a seizure give glucagon immediately.
- If the student's skin is not accessible the glucagon injection can be given through clothing. Note you will need to use more force if you are going through clothing.

**Resources:**

Canadian Diabetes Association: [www.diabetes.ca/](http://www.diabetes.ca/)

BC Children's Hospital Endocrinology & Diabetes Unit: <http://endodiab.bcchildrens.ca>

**Notes:**