

# Troubleshooting Low BG (hypoglycemia)

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**As you may know, many factors can cause low blood glucose (BG) whether you are on a pump or injections.**

The good news is that most people on pumps report less frequent and less severe low BG. It is still important to always be prepared for low BG. Also, keep in mind that over time, your symptoms of low BG may change.

If your BG was consistently high before starting on a pump, you may experience some hypoglycemia symptoms as you work to improve your overall glucose control. For example, a BG of 100 mg/dL may feel much lower if you have been used to BG levels in the 300 mg/dL range. Also, the risk for hypoglycemia increases with improved BG control. However, studies support that the benefits of improved glucose control outweigh the risks of hypoglycemia.

In general, the main events that cause hypoglycemia are:

- Too little food
- Too much insulin
- Increase in activity and/or “lag effect” from exercise\*
- Drinking alcohol

## Treating Low BG

No matter what the cause, it is critical to treat a low BG immediately! The standard treatment is often called the “Rule of 15.” (See the following information on the “Rule of 15”.) It is best to eat a food that is all carb since this will quickly raise your BG. Foods like chocolate will not work as fast because of the fat they contain.

Recommended treatments include (each suggestion is **15 grams** of carb):

- Glucose tablets, 3-4 tablets (carb content depends on brand)
- Regular soda, 4 ounces or ½ cup
- Fruit juice, 4 ounces or ½ cup
- Honey or table sugar, 1 tablespoon
- Lifesavers®, 5 regular size

## “The Rule of 15”

- Eat or drink 15 grams of carbohydrate.
- Wait 15 minutes.
- Recheck your BG.
- If your BG is less than 70 mg/dL, repeat above steps.

\* Exercise can exert its BG-lowering effect for 12-36 hours after you finish exercising.

## Preventing Low BG

When you have a low BG, a little detective work to uncover why your BG dropped below your target range can help prevent future lows. Questions a pump wearer should ask include:

- Is my basal rate too high? (Especially if you are having frequent low BGs before meals or during sleeping hours)
- Are my basal rates programmed correctly?
- Is the time on my pump set correctly? Verify that AM / PM are set correctly.
- Do I need an adjustment to my bolus ratios, insulin-to-carb (I:C) or insulin sensitivity factor (ISF)?
- Are my BG targets too low?
- Am I counting my carbs correctly?
- Am I calculating my bolus doses correctly?
- Am I taking carb boluses too soon before meals or snacks? Are my bolus doses overlapping?

Talk to your healthcare provider (HCP) if you need help answering these questions or determining a cause for your low BG. You can contact Animas Customer Support at 1-877-YES-PUMP (1-877-937-7867) if you would like to confirm the programming of your pump.

Don't get frustrated if you cannot figure out the cause of an occasional episode of low BG. Accept that it is the nature of diabetes. You will experience both high and low BG and not every episode can be explained!

## Glucagon Emergency Kits

Glucagon is a hormone that works the opposite of insulin; it raises glucose levels in the bloodstream. Everyone who takes insulin should have a glucagon kit (a prescription item). The kit contains a syringe with liquid and a vial of glucagon powder. The two must be mixed together immediately before using, withdrawn from the vial, and then injected into the thigh, arm, or buttocks. Glucagon is given by a trained family member, friend, or HCP if you are unconscious or having a seizure and unable to safely swallow food or liquid. Talk to your HCP about getting a glucagon kit if you do not have one already. Family members or friends should know where you keep your glucagon and be trained in how and when to use it. Make sure you check the expiration date and replace your kit if it expires, or if used. Also, some people store a glucagon kit in more than one place, including home, school, and work.