

Project CODE

COmprehensive **D**iabetes and **E**ye Care

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Patient Education Series

HYPOGLYCEMIA

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Hypoglycemia

What is hypoglycemia?

Hypoglycemia means low blood sugar.

Can I get hypoglycemia?

If you are a diabetic taking insulin or tablets that increase insulin production, you can get low blood sugar from time to time. So it's important for you to know the signs and symptoms of hypoglycemia and how to treat it quickly.

How does low blood sugar happen?

For non-diabetics, during fasting periods when the sugar in the blood is used up by the body, the liver releases glucose into the blood so the blood glucose values remain above 70mg/dL. For diabetics **who are taking insulin or tablets that increase insulin production**, this process may not work very well and sometime the blood sugar is not able to rise upto normal easily enough. So there is too much insulin in your system and too little glucose in your blood. This leads to low blood sugar or hypoglycemia.

This can happen if

- you skip or delay your meal or snack, or if you have eaten less than usual.
- you are unwell and not digesting your food properly (upset stomach etc)
- you are doing more exercise than usual because exercise lowers your blood sugar.
- you are drinking alcohol, especially on an empty stomach. This is especially dangerous and can be fatal.

What are low sugar symptoms?

You can get symptoms of low sugar suddenly. These may be mild, like hunger, slight shakiness or light-headedness, weakness, slight disorientation. You can also experience nervousness, anxiety, sweating, weakness, dizziness, headache, nausea, sleepiness, irritability, moodiness, confusion and difficulty speaking. Some people also experience tingling sensations around the mouth.

Can I have hypoglycemia in my sleep?

Yes. Some signs are crying out in your sleep or having nightmares, sweating a lot, feeling very tired, irritable or confused when you wake up

What should I do if I have these symptoms of low sugar?

If you have a home test kit, check your sugar immediately. If it is below 70mg/dl, eat or drink a small quantity of sugary foods. If you can't check, and think you might have low sugar, always treat yourself.

You can have ONE of the following

- half a small cup of fruit juice
- half a small cup of bottled drink
- one cup of milk
- 5 or 6 pieces of hard candy/ boiled sweet
- 1 tablespoon of sugar or honey

Wait for 15 minutes. If you have a home test kit, check your sugar. If your sugar is still below 70mg/dL again take any one of the above sugary foods. If you don't have a test kit, check if your symptoms are better in 15 minutes. If not once again take a small quantity of sugary food till you

feel better.

You need to always carry a few boiled sweets or small packets of sugar with you.

It is important to eat sugary foods as soon as possible because your sugar could drop rapidly causing you to lose consciousness.

How can I know if my symptoms are because of low sugar or because of something else?

1. Check with your home test kit if your sugar is below 70mg/dL while experiencing these symptoms
2. If the symptoms lessen and disappear on eating small quantities of sugary foods, this also confirms that the symptoms are because of low blood sugar.

Can hypoglycemia be dangerous?

Yes. If it is not untreated, you can become quite confused, become clumsy in your movements and hurt yourself or even faint. If this happens, it is a medical emergency and you need to be taken to the hospital immediately. Severe hypoglycemia can even progress to seizures, coma, and even death.

Repeated episodes of hypoglycemia can lead to permanent brain damage.

Can I have hypoglycemia and not know it?

Over time you usually become familiar with the symptoms of low sugar that you usually get, and learn to realise when your sugar is falling.

But over the years your specific set of low sugar symptoms could change, and you might have to relearn what hypoglycemia "feels" like.

But sometimes people can have low blood sugar and not have any symptoms like shaking or weakness, which warn them that their sugar is too low. This is not very common. It usually happens to people who have been diabetic for many years. It's more likely in diabetics who have nerve damage (neuropathy), whose glucose control is very tight, or those who are on certain medicines for heart disease or high blood pressure. Some people who have had many low blood sugar episodes also sometimes stop having symptoms,

These people have to be extra careful to not let their blood sugar drop and need to be able to monitor their sugar levels at home.

How do I prevent hypoglycemia?

1. Tell your doctor about any low sugar episodes you have been experiencing.
2. Find out if the drugs you have been prescribed can put you at risk for low sugar episodes
3. Find out exactly how many minutes before your meal you should take your medicines and make sure you take them at the correct time. For example if you are supposed to take your medicine 30 minutes before food, don't take it earlier or later.
4. Eat regular meals. Eat roughly the same size of meal and snacks that you are used to, at specific times of the day. Do not skip meals or snacks. Snacks are important especially if you are going to exercise or to sleep at the end of the day.
5. Ask your doctor how you should adjust your medicines if you absolutely have to skip a meal
6. Eat more frequently if you are going to be physically exerting yourself more than usual.
7. Ask your doctor how you should adjust your medicines if you are going to physically exert yourself

Being ill and hypoglycemia

Being unwell can cause changes in how much insulin your body needs. It can also cause problems with digestion and absorption of food. Some medications also cause low blood sugar. You need to be extra alert when you are ill about hypoglycemia. Check with your doctor about any changes you need to make with your diet or medication. Check your blood sugar levels more frequently when you are ill.

What do people in my family, my friends and co-workers need to know about hypoglycemia?

You need to inform them that if they notice you being disoriented, you might have "low sugar" and would need help to immediately eat sugary foods.

If you lose consciousness or faint:

they must rush you to a hospital or doctor

they must not try to give you any food or drinks

they must not inject insulin

If I become unconscious what will the hospital/ doctor do?

You will get an injection of glucagon to raise your blood sugar.

Which drugs cause hypoglycemia? Which don't?

These drugs taken alone or in combination with any other medicine can put you at risk for hypoglycemia:

insulin injections

glimepiride (Amaryl)

glipizide (Glucotrol, Glucotrol XL)

glyburide (DiaBeta, Glynase, Micronase)

chlorpropamide (Diabinese)

nateglinide (Starlix)

repaglinide (Prandin)

sitagliptin (Januvia)

tolazamide

tolbutamide

These drugs if taken ALONE (ie NOT in combination with other tablets or insulin injections) will NOT lead to low blood sugar

metformin (Glucophage)

acarbose (Precose)

miglitol (Glyset)

pioglitazone (Actos)

rosiglitazone (Avandia)