

Treating hypos in diabetes

Other formats

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- 01392 402093 (for Mid Devon, East Devon and Exeter services)
- 01271 314090 (for North Devon services)
- rduh.pals@nhs.net

What is a hypo?

'Hypo' is short for 'hypoglycaemia' which means 'low blood glucose'. For people on insulin treatment, a glucose level below four mmol/L can be considered a hypo.

Hypos are most likely to affect people who take insulin. They can also occur with certain tablets for type 2 diabetes, such as Gliclazide. Hypos are unlikely to affect people who take other medications for type 2 diabetes.

Four is the floor

If you are on insulin, or if you take tablets such as Gliclazide which can cause hypos, you should **treat any glucose level below four mmol/L as a hypo**.

Remember that both blood tests and continuous glucose monitors are not completely accurate. Your true glucose level may be a little lower (or higher) than the reading. If you feel symptoms of a hypo and have a fairly low glucose reading (for example, four to five mmol/L) then it is sensible to treat as a hypo.

If your glucose levels normally run high, you may feel hypo at a higher level (for example, four to six mmol/L) because it is low for you. You can treat these as hypos if they are uncomfortable, but you should discuss the long-term approach with your diabetes team.

How do I know if I am having a hypo?

Common symptoms are:

- feeling hungry, sweaty, shaky or light-headed
- feeling anxious, irritable, confused or disorientated

- looking pale or vacant
- behaving oddly or aggressively.

The symptoms of a hypo can vary from person to person, so over time you are likely to learn about your own symptoms.

If you feel symptoms of a hypo, check your glucose level. You should also check your glucose level if you feel strange or unwell and aren't sure why.

A fingerprick blood test may be more accurate than a continuous glucose monitor (CGM) reading. If you feel hypo, and you use a CGM and the reading isn't low, we recommend doing a fingerprick blood glucose test.

How do I treat a hypo?

If you are on insulin (or tablets such as gliclazide), we recommend having hypo treatment with you at all times. You could also keep it by your bed and other convenient places at home or at work.

Take 15 to 20 grams of fast-acting sugar in a form that you can quickly swallow and your body can absorb quickly. Here are some examples:

Dextrose tablets	five
Fruit juice, or full-sugar soft drink (not diet)	150-200 mL
Jelly babies/jelly beans	four
Fruit pastilles (<i>Vegetarian/vegan option</i>)	six - seven

Usually these will be enough to raise your blood glucose by two - three mmol/L. Wait 10 minutes, then test again. If your glucose level is still below 4 mmol/L, repeat the treatment and retest 10 minutes later.

Once your glucose level is above 4 mmol/L, eat something to help keep it up. For example, 2 plain biscuits, a sandwich – or you could have your next meal early.

If you use an insulin pump, you do not usually need to have a post-hypo snack.

Treating severe hypos (needing help)

If you need help, but you are conscious and can safely swallow, then another person can help you to take a sugary snack or drink. Follow the advice above.

If you are unconscious due to a hypo, then people with you should:

- call 999 immediately
- inject you with glucagon if prescribed, and if they have been trained how to use it

- not give you anything by mouth, as you may choke

If you need help to treat a hypo, you should always discuss this with your diabetes team. You should also inform the Driver and Vehicle Licensing Agency (DVLA), unless your diabetes team advise that this is not needed. Do not drive or operate dangerous machinery within 24 hours of a severe hypo.

How not to treat hypos

You may feel an overwhelming urge to eat or drink lots of sugar. Try not to over-treat hypos, as your glucose level won't rise more quickly, but it may end up too high.

Do not treat hypos with foods that need to be chewed, unless you have no better option. It will take longer for the sugar to be absorbed.

Try not to treat hypos with high-fat snacks such as cake, chocolate, milkshake or ice cream. They may take longer to raise your glucose level, and are also more likely to over-treat the hypo. They are high in calories which can cause weight gain if eaten frequently.

Why do hypos happen?

Some possible reasons are:

- if you are more active than usual. Physical activity burns glucose as fuel
- if you miss a meal, or had a smaller meal than usual, or with less carbs
- if you take more insulin than usual, or accidentally take insulin twice
- injecting insulin too deep into muscle instead of into the skin
- if your usual insulin doses are too high. Consider this if you have frequent hypos or if your hypos are usually at the same time of day
- if you drink alcohol, this can increase the risk of hypos overnight or next morning.

Hypos can also happen without any obvious cause. A hypo doesn't mean that you have done something wrong.

Discuss with your healthcare professional if you experience more than one - two hypos per week, or if you find them very unpleasant or difficult to treat.

Hypos and driving

Having a hypo while driving could be dangerous for you and other people.

To reduce the risk of a hypo

- Check your glucose level before driving
 - below four mmol/L – do not drive. Treat the hypo. Once your glucose level is over five mmol/L, wait 45 minutes and check again before driving. Consider having a snack to help keep your glucose level up

- Four to five mmol/L – you may drive if you feel well but you **MUST** have a snack to make sure your glucose level is not dropping
- over five mmol/L – you may drive if you feel well
- each time you check your glucose level, if the result is OK you are allowed to drive for the next two hours as long as you feel well. This means that if you are driving, it should never be more than two hours since the last glucose check
- by law you must have a fingerprick blood glucose meter in the vehicle when driving. This applies even if you use a continuous glucose monitor, in case the CGM stops working or gives a false reading
- you must always have hypo treatment within easy reach when driving.

If a hypo occurs when driving

- pull over as soon as it is safe. Take the keys from the ignition and move out of the driver's seat if it is safe
- check your glucose level
- if your glucose level is below four mmol/L, treat the hypo. If your glucose level is a little higher but you feel hypo, treat yourself in the same way
- once your glucose level is over five mmol/L, you should wait 45 minutes and check again before driving. Consider having a snack to help keep your glucose level up.

Obtaining advice about your diabetes

You can contact the Diabetes Specialist Nurses (DSNs) at your local hospital as below.

Exeter – The adult DSN on call can usually be contacted between 9am and 1pm via the hospital switchboard on 01392 411611. Please ask the automated service for the operator. When speaking with the operator, ask for the adult Diabetes Specialist Nurse on call. You will then be transferred to a mobile number.

Barnstaple – Please call 01271 322726 between 9am and 5pm.

Your notes

PALS

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern, please contact PALS:

- 01392 402093 (for Mid Devon, East Devon and Exeter services)
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Scan the QR code to visit the Care Opinion website →

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