

# Managing and preventing low blood sugar (hypo) when you have diabetes

Diabetes Service

Information for Patients

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## What is a 'hypo'?

Glucose is a sugar carried in the bloodstream that your body uses for energy. When the level of sugar (glucose) in your blood drops too low (below 4 mmol/L), it is called hypoglycaemia or a "hypo".

## Who can get a hypo?

It mainly affects people with diabetes, especially if they take tablets or injections for this. If you have diabetes, your blood glucose levels can be erratic, sometimes becoming very low. If you are not sure how your diabetes tablets work, talk to your local pharmacist or speak to your diabetes care provider, they will be able to help you.

A low blood sugar level can be dangerous if it's not treated quickly, but you can usually treat it easily yourself.

## What causes hypos?

A number of different situations can cause a hypo:

- Too much diabetes medication (insulin and/ or diabetes tablets).
- Delayed or missed meals or fasting.
- Eating less than usual (especially carbohydrates).
- Unplanned or strenuous activity.
- Drinking too much alcohol or drinking alcohol without food.

Sometimes there is no obvious cause, but a hypo should be treated immediately.

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

Visit [www.leicestershospitals.nhs.uk](http://www.leicestershospitals.nhs.uk) for maps and information about visiting Leicester's Hospitals  
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## What are the symptoms?

Your body will give you early warning signs of a low blood sugar level, which may include symptoms such as:

- heavy sweating
- feeling anxious
- feeling shaky or trembling
- tingling lips
- feeling hungry
- turning pale
- a fast or pounding heartbeat (palpitations)

Symptoms can vary from person to person, but you will feel “different” quite quickly.

**If you miss these early signs, the symptoms may get worse and include:**

- slurred speech
- unusual or odd behaviour
- being unusually aggressive or tearful
- difficulty in concentrating

**If you do not treat your hypo at this stage, you may become unconscious.**

**You should always wear or carry some form of diabetes identification, so it can provide information about your health to someone trying to help you if you can’t communicate.**

## How do you treat a hypo?

If you recognise that you are having a hypo, you should treat it immediately with something that will raise your blood glucose quickly.

1. Stop what you are doing and start treatment by taking quick acting glucose/ sugar replacement.
2. Suitable treatments are:
  - 5 to 7 glucose/ dextrose tablets
  - 4 to 6 Jelly Babies (depending on the size)
  - 220mls Lucozade® Original
  - 100mls Ribena® (undiluted - not sugar free)
  - 60mls Glucojuice (Lift®)
  - 170mls pure fruit juice e.g. orange juice
  - 180mls fizzy drink (full sugar) e.g. coke/ lemonade
  - 2 tubes of Glucogel/ dextrose gel (only available on prescription from your GP)

If you are not able to treat a hypo yourself, but are still conscious and able to swallow, someone can give you glucose gel if you have this available.

3. Re-check your blood glucose level after 15 minutes.
4. If your blood glucose level is still less than 4mmol/L, repeat step 2. This can be repeated up to 3 times. On the 3<sup>rd</sup> time an ambulance should be called for urgent medical help.  
If your blood glucose level is more than 4mmol/L, then move to step 5.
5. When you start to feel better and your blood glucose level is above 4mmol/L, if you are not due to eat a meal you will need to follow the quick acting glucose with a slower starchy glucose such as:
  - fruit e.g. apple
  - cereal or a cereal bar
  - biscuits
  - a sandwich
  - or have your next meal if it is due

## How to treat someone who's unconscious

You can become unconscious if your blood glucose levels are too low. In this case, you should be put on your side with your head tilted back. You must not be given anything by mouth but you will need an injection of glucagon. If you are not with a person who is trained to give glucagon, someone will need to call emergency services on 999 for an ambulance.

## What is glucagon?

Glucagon is a hormone that acts against insulin to raise the blood glucose level. It is available on prescription. In some cases, a friend or relative can be shown how to give you glucagon should you become very drowsy or unconscious. Glucagon may take about 15 minutes to take effect. It may also cause you to feel sick. An ambulance should be called if glucagon does not help or if there is no one around who can administer it.

After a hypo you may notice that your blood glucose levels are high for several hours due to the action you have taken to raise this. Your body will also make anti-insulin hormones in an effort to correct the hypo. Do not worry about this as it is normal.

## How to avoid hypos

Follow the advice below to reduce your chance of having a low blood sugar level:

- Eat regularly.
- You may need to eat more carbohydrate foods before and after exercise.
- Keep alcohol within sensible limits and do not drink on an empty stomach.
- Take your medication/ injection at the recommended time and dose.
- Monitor your blood glucose levels and if you notice you are having more than 1 hypo a week contact your usual diabetes care provider, as changes to your medication/ insulin may be needed.
- Always carry a sugary snack or drink with you to treat early signs of a hypo.

## Driving and hypos

- Keep glucose treatments in your car at all times.
- Check your blood glucose level before driving.
- Do not drive if your blood glucose level is less than 5mmol/L.

If you have a hypo while driving, stop the car as soon as possible. Turn the car off to demonstrate you are not in charge of the car, and move into the passenger seat if it is safe to do so. Treat the hypo. **Do not drive for at least 45 minutes after recovery of a hypo because your response rates will be slower.**

## Remember.....

- Act **immediately** if you are having a hypo.
- **Never** ignore the warning signs.
- **Always** carry hypo treatments with you and some form of diabetes identification.
- Make sure other people know what to do when you are having a hypo.

## Contact details

- Contact your normal diabetes care provider (this is usually your GP) for advice.
- Diabetes Specialist Nurse Helpline: 0116 258 4919 (Monday to Friday, 9am to 4pm).

## Further information

- Diabetes UK helpline: 0345 123 2399 (Monday to Friday, 9am to 6pm)  
[www.diabetes.org.uk](http://www.diabetes.org.uk)
- Leicester Diabetes Centre: [www.leicesterdiabetescentre.org.uk](http://www.leicesterdiabetescentre.org.uk)

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