

Department of Nutrition and Dietetics

Diabetes: Hypoglycaemia

What is hypoglycaemia?

Hypoglycaemia or a 'hypo' occurs when the level of glucose in the blood drops too low. A blood glucose level of **below 4.0 mmol/L** is the beginning of a hypo. Some people may experience hypoglycaemic symptoms at higher blood glucose levels – this should be discussed with your diabetes nurse.

What are the signs?

The signs and symptoms of a hypo vary from person to person, but include:

- Hunger
- Irritability
- Blurred vision
- Trembling or dizziness
- Feeling drowsy
- Sweating heavily
- Tingling of the lips
- Difficulty concentrating
- Slurred speech
- Looking pale

If left untreated, a severe hypo can lead to unconsciousness. If you are unable to rouse a person with diabetes, call 999 immediately.

What to do

At the first signs of a hypo you should immediately measure your blood glucose level to confirm hypoglycaemia. If your blood glucose level is below 4.0 mmol/L, **take 15-20g fast-acting carbohydrate**. This could be one of the following:

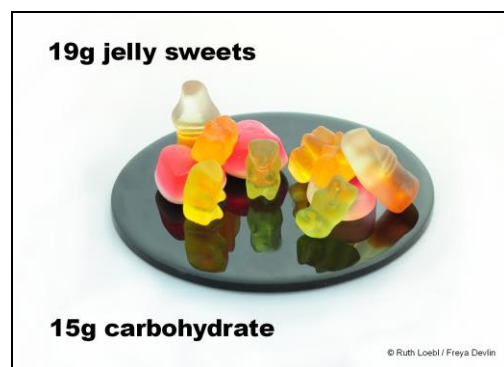
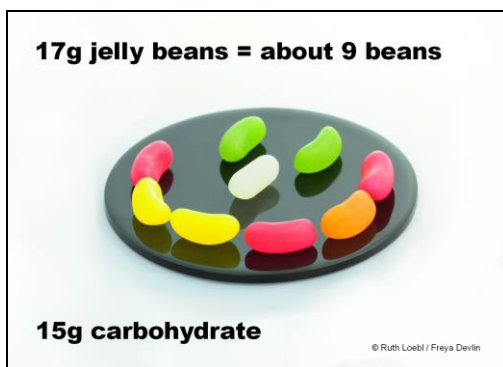
- 4-5 glucose/dextrose tablets, e.g. GlucoTabs or Dextro Energy
- A glass of Lucozade Energy (200ml)
- A glass of ordinary (not diet) fizzy drink (150-200ml)
- A glass of smooth orange juice (150-200ml)
- Sweets: 4-5 jelly babies, or 8-10 jelly beans, or 5-6 wine gums, or 5-6 fruit pastilles

Remember... Do not use chocolate or milk with sugar as first-line treatment for a hypo, as these are absorbed too slowly. Do not use a hot drink with sugar either, because you cannot drink it quickly enough.



Patient Information

20g of fast-acting carbohydrate will raise your blood glucose levels by 2.5-3.5 mmol/L. Try not to over-treat your hypo.

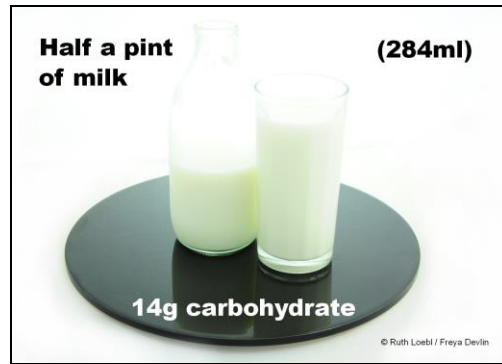
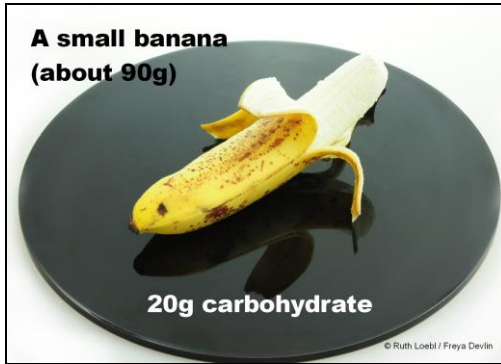


Wait 10-15 minutes and re-test your blood glucose level. If your level is still low, take another 15-20g fast-acting carbohydrate and re-test after another 10-15 minutes. If your level is 4.0 mmol/L or higher, you should then eat some longer-acting carbohydrate.

If it is not a mealtime, **have a snack of 15-20g of longer-acting carbohydrate** to make sure your blood glucose level does not drop again before your next meal. This could be one of the following:

- A small banana
- A slice of bread or toast
- A pot of yogurt
- A small bowl of breakfast cereal
- A glass of milk (half a pint)
- A medium slice of malt loaf
- Two digestive biscuits
- A two-finger wafer bar or a fun-size chocolate bar

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If your hypo is just before a meal, then you should treat the hypo with fast-acting carbohydrate before eating. Your meal should contain starchy carbohydrate, e.g. bread, pasta, potato or rice. If you are counting carbohydrates you may be able to reduce the insulin you have calculated for your meal by 1-2 units instead of eating extra longer-acting carbohydrate. You may also choose to inject your insulin after eating instead of beforehand. Ask your Diabetes Specialist Dietitian or Nurse for more guidance on this.

Precautions to take

- Always carry fast-acting hypo treatments and starchy snacks, especially if you are driving. Always test your blood glucose levels before driving.
- Wear or carry a diabetes identification bracelet, necklace or card – available from Diabetes UK and other suppliers.
- Tell people about your diabetes and the signs of hypoglycaemia. The more aware people are, the more likely they will spot the signs if you don't, and will be able to help you treat your hypo before you need medical assistance.

Why did it happen?

Generally, most people can think back after a hypo and identify why it happened.

- Took too much insulin or diabetes tablets?
- Delayed or missed a meal?
- Didn't eat enough starchy food?
- More active than usual without having snacks?
- Drinking too much alcohol or drinking alcohol without food?

Patient Information

Once you know the reason why you had a hypo, try to prevent it happening again. If you continue to have hypos at certain times, you might need to alter your insulin dose or have an extra snack between meals. If you continue to have hypos and you can see no reason why your blood glucose is running low, then you should speak to your Diabetes Specialist Dietitian, Nurse or Doctor.

Night-time hypoglycaemia

Sometimes your blood glucose level can drop during the night. Often you will wake up, and will need to treat the hypo as if it were any other time of day. If the hypo is mild, it might not wake you up, but you may feel very tired next morning, or have a headache.

If you suspect that you are having regular night time hypos, the best way to confirm the situation is to test your blood glucose on a number of occasions at bedtime, during the night, and when you wake up. Your diabetes team can advise you of the most suitable time during the night, and they can also help you to interpret the results.

Hypoglycaemia and driving

It is your responsibility to ensure that you are safe to drive. If you do not follow the guidance provided by the DVLA, you may lose your driving licence. If you drive while having a hypo or when at risk of having a hypo, you are putting yourself and others in danger. This advice applies to all those on insulin or other medication that carries a risk of causing hypos, such as sulphonylureas (Gliclazide and Glimepiride are two examples of this type of medication).

- Check your blood glucose before driving and every 2 hours while driving.
- **Do not drive if your blood glucose level is below 5.0 mmol/L.**
- Keep hypo treatments (fast-acting and longer-acting carbohydrate) in the car at all times.

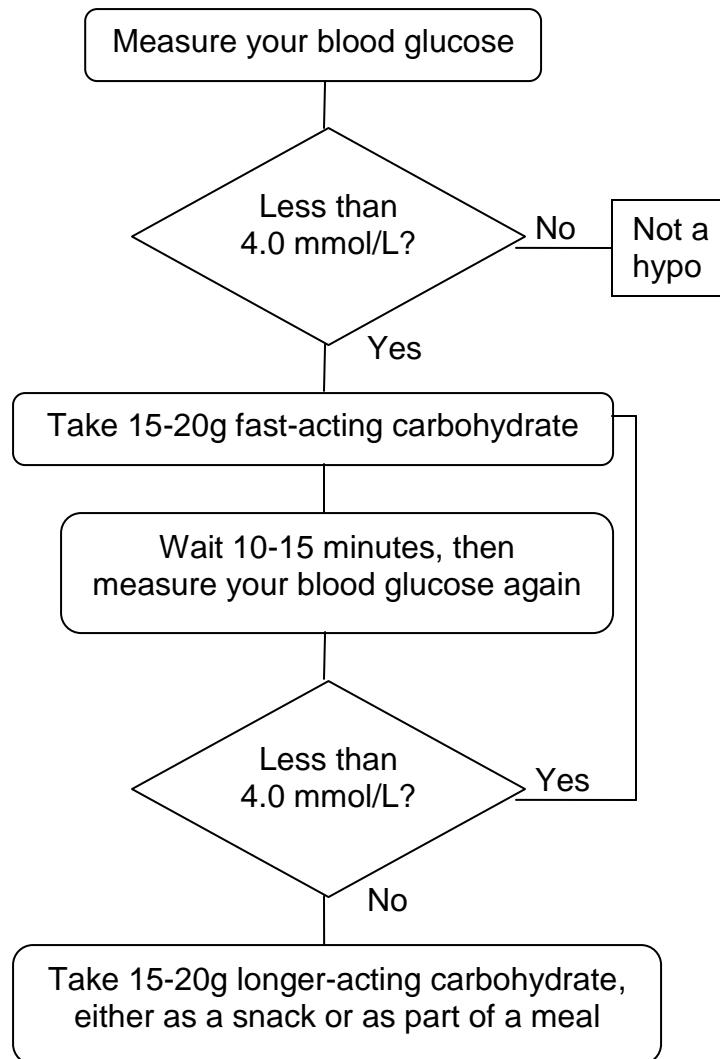
If you feel as though you might be having a hypo while driving, stop the car safely as soon as possible, turn off the engine, remove the keys from the ignition, and move into the passenger seat. Test your blood glucose level, and treat any hypo. You must wait for 45 minutes after your blood glucose is back to normal before you start driving again.

If you feel like you might be having a hypo, never ignore the warning signs.

Continued on next page.

Patient Information

Flow chart



Further Information

This leaflet was produced by the Coventry and Rugby Dietitians. If you have any other questions or would like some more information, please contact 024 7696 6161.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 6161 and we will do our best to meet your needs.

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Document History - Published: March 2007 **Reviewed:** May 2009, June 2011, March 2014, April 2016, September 2017, July 2018 **Review:** July 2020 **Version:** 6 **Reference:** HIC/LFT/261/06