



NHS Tayside Diabetes Managed Clinical Network Patient Information Leaflet

Having a Hypo

What is hypoglycaemia?

Hypoglycaemia or 'hypo' is when your blood sugar levels are too low (below 4mmols/l). This is a potentially dangerous side effect of some diabetes tablets and insulin. This leaflet is designed to give you information to prevent, recognise and treat hypoglycaemia.

What are the warning symptoms?

Hypo warnings vary from person to person. However, you will often recognise your own warning signs that indicate your blood sugar level is too low.

You may experience:

- headaches
- shaking or dizziness
- anxiety or bad-temper
- sweating
- palpitations
- hunger
- tingling lips or fingers

Others may notice you becoming:

- moody
- irritable and aggressive
- irrational
- confused
- unable to concentrate
- unable to co-ordinate (shaking)
- pale

What causes a hypo?

- Too little carbohydrate, for example bread, pasta, rice, potato, cereal type foodstuffs
- Missed or late meals/snacks
- Too much insulin or tablets
- More exercise than usual for example housework, gardening or sport.
- A 'delayed hypo' can occur several hours after exercise. Always make sure you have a suitable carbohydrate snack when you exercise
- Alcohol - this may cause you to have a "delayed hypo" the next day. Always make sure you have a suitable carbohydrate snack or meal if you have alcohol to drink
- A change in injection sites for example changing your injections from an area of lipohypertrophy ("lumpy skin") to "normal" skin
- Direct heat or sauna treatment may affect the absorption of insulin and can potentially cause low blood sugar levels if insulin is absorbed more quickly than usual
- Other reasons for example: weight loss whether intentional or not or a change in your lifestyle. Your medication may require to be reduced to prevent hypoglycaemia
- Occasionally the cause of a hypo may not be obvious. If in doubt, contact your GP, Practice Nurse or one of the Diabetes Team for advice.

General Advice about hypo

- Always carry some form of sugar for example dextrose tablets or fruit pastilles
- Always carry/wear some form of identification specifying you have diabetes and your treatment
- Tell your friends, relatives and colleagues that you have diabetes and let them know how to help if you have a hypo
- You may have high blood sugars for several hours after a hypo caused by the treatment of hypo and your body's natural response to hypo
- Night sweats, morning headache and/or wakening during night may be symptoms of hypoglycaemia during the night
- You may need to adjust your treatment before exercise to prevent hypo – ask for advice from your healthcare professional
- **DO NOT tolerate hypo** – ask for advice
- Learn how to treat and prevent hypoglycaemia (see below)

Treatment of hypo

Mild Hypo

Stop and treat quickly. Follow the treatment guidelines below. If you don't feel better after 5 minutes, take your quick acting carbohydrate again. Avoid using chocolate for the treatment of hypo.

Step one Take quick acting carbohydrate food or drink	Suitable food and drink <ul style="list-style-type: none">• 3 glucose tablets• <u>or</u> 50mls Lucozade – about an egg cup full• <u>or</u> 150 mls of ordinary lemonade/cola - about one small glass• <u>or</u> 5 soft sweets, for example. Fruit Pastilles	This will raise the blood sugar level quickly.
Step two Take slow acting carbohydrate food or drink	Suitable food and drink <ul style="list-style-type: none">• biscuit• <u>or</u> sandwich• <u>or</u> glass of milk• <u>or</u> fruit• <u>or</u> your next meal if it is due	This will prevent the blood sugar falling again.

Moderate Hypo

If the mild symptoms are not recognised or treated quickly enough you may need help from someone else to treat a hypo.

A relative, friend or colleague can give you a quick acting carbohydrate (sugar) if you are confused or unable to treat yourself providing you can swallow.

Treatment Glucogel

If you are hypo but confused, drowsy or unco-operative, you will need someone to help you. Glucogel is a 'sugar' gel for treatment of hypoglycaemia which can be prescribed by your GP or it can be purchased over the counter.

Glucogel should only be used if the person being treated can swallow. **Do not administer glucogel to an unconscious person because of the risk of choking.**

A friend, relative or carer should be taught how to use glucogel as follows:

- The person being treated must be able swallow
- Twist off the GlucoGel tube cap
- Squeeze the tube to insert the gel into mouth between the teeth and cheek
- The outside of the cheek should be gently rubbed to aid absorption
- Glucogel is absorbed from the lining of the mouth
- It should help raise the blood sugar within 15 minutes
- Follow this treatment with starchy carbohydrate snack e.g. wholemeal toast or your next meal if it is due
- Recheck blood glucose level
- The treatment can be repeated if necessary

Severe Hypo

A very low blood sugar may cause you to become unconscious. This is an emergency situation. You will need immediate attention from another person and/or a healthcare professional.

If you are treated with tablets for diabetes and you have a severe hypo you may require to go into hospital to have treatment with an intravenous drip with glucose (sugar).

Treatment with Glucagon

If you are treated with insulin a carer, friend or relative can be taught how to treat severe hypo using an injection of Glucagon. GlucaGen Hypo Kits are available on prescription to treat hypoglycaemia in insulin-treated patients.

Glucagon is a hormone that occurs naturally in all our bodies. Glucagon raises the blood sugar level by releasing sugar that is stored in the liver.

Please note: If the stores in the liver are low the Glucagon may not be effective. Glucagon may not work if a person has been drinking alcohol to excess, has had a very poor appetite/ very little food recently or has had a problem with hypo within the previous day.

The person treating you with Glucagon should be taught the following:

- Place the person in the recovery position
- Give the injection (intra muscular or subcutaneous) GLUCAGEN™ or Glucagon
- Glucagon takes about 10 - 15 minutes to work
- If there is no improvement within 10 minutes or there signs or a seizure (a fit) dial 999 as the person may need to have an injection of glucose (sugar) to treat the hypo
- Recheck blood sugar in 15 minutes
- If there is no improvement dial 999 as above

- Once the person has improved and are able to swallow provide a snack of 'starchy' carbohydrate for example sandwich to prevent the blood sugar falling down low again

ALWAYS look for a cause of a hypo. Seek advice from your healthcare professional to help prevent risk of further hypo

What if I have a hypo when my insulin injection is due?

- Take some quick acting carbohydrate for example 50mls (small glass) of Lucozade.
- Once your blood sugar is above 4 mmols, take your normal dose of insulin.
- Have your meal without delay.
- Look for the reason for hypo. If there is no obvious reason then you may have to reduce the insulin that is working at that time. Further information in the leaflet “Insulin Adjustment” available on www.diabetes-healthnet.ac.uk or from your diabetes healthcare team.

Never miss an insulin injection your insulin may need some adjustment

What do I do if I have a hypo when my diabetes tablets are due?

- Take some quick acting carbohydrate for example 50mls (small glass) of Lucozade
- Once your blood sugar is above 4 mmols, take your tablets as you would normally
- Have your meal without delay
- Look for the reason for hypo. If there is no obvious reason then you may need to have your diabetes medication dose given **before** the hypo reduced. Contact your healthcare professional for advice

This guide is intended for use when you are well. During illness, see leaflets on “Sick day rules for patients on insulin” or “Sick day rules for patients on tablets”. These are available on www.diabetes-healthnet.ac.uk or from your diabetes healthcare team.

Diabetes Nurses Contact Numbers

(during working day hours Monday to Friday 9am – 5pm)

Dundee Team Tel: 01382 632293

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