

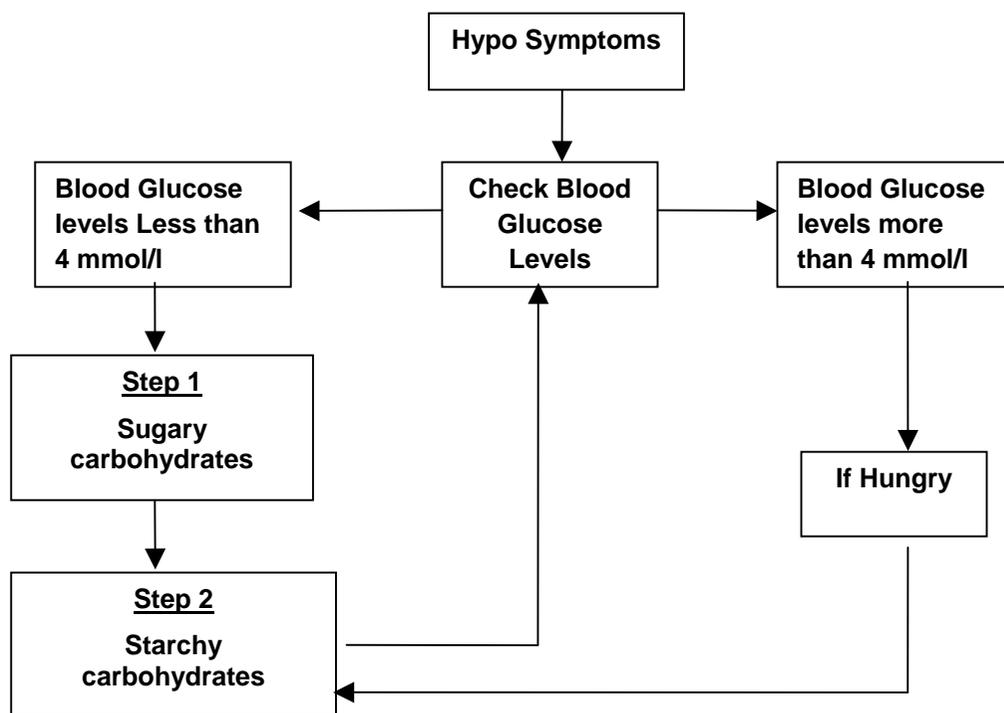
Remember

There are simple things that you can do to prevent hypos:



- Increase carbohydrate before exercising, or after discussion with your health professional
- Reduce insulin before exercising
- Monitor blood glucose more frequently
- Keep to a regular treatment pattern and take your medication at the correct times
- Eat regular meals and healthy snacks.

Treatment of Mild / Moderate Hypos



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HYPOGLYCAEMIA or 'Hypo'

(This is a medical term for low blood glucose)

If your blood glucose level falls below 4.0 mmol/l you are at risk of having a 'hypo'

Various factors influence your blood glucose levels including:-



Increase in blood glucose
Food
Illness
Stress
Exercise



Decrease in blood glucose:
Lack of food
Tablets for diabetes
Insulin
Exercise

HYPOS MUST BE TREATED QUICKLY

What causes a hypo?

- Not eating enough carbohydrate, for example bread, pasta, rice, potato, cereal type foods
- Delayed, missed or late meals/snacks
- Too much diabetes medication (tablets or insulin)
- More or unplanned exercise/activity than usual for example housework, gardening, sport or sexual activity
- A delayed hypo can occur several hours after exercise. Always make sure you have a suitable carbohydrate snack during and / or after exercise
- Alcohol – this may cause you to have a delayed hypo the next day. Always make sure that you have a suitable carbohydrate snack or meal during and / or after having alcohol to drink
- Stress – life changes or illness
- Hot weather or sauna/jacuzzi treatment may affect the absorption of insulin and can potentially cause low blood glucose levels if insulin is absorbed more quickly than usual.
- If taking insulin, injecting into a muscle instead of the fatty layer under your skin. Check with your DSN that the needle you are using is the right length.
- Not alternating injection sites e.g. not changing your injections from an area of lipohypertrophy ('lumpy skin') 'to normal' skin
- A decrease in weight, intentional or not or a change in your lifestyle. Your medication may require to be reduced to prevent hypoglycaemia
- Certain illnesses – particularly infections, vomiting or diarrhoea

Driving

Having a hypo whilst driving is dangerous for yourself and other road users.



- Always test your blood glucose levels before driving
- If your blood glucose level is below **6mmol/L** you **should not drive**.
- On long journeys do not drive for more than 2 hours without stopping to test your blood glucose level and take a snack if it is 5mmol/l or less
- Leave 45 minutes time gap after treating a hypo before driving
- Keep glucose tablets, fruit or a sweet drink (not the diet type) in your car at all times

If you have symptoms of a hypo whilst driving:

- Pull over as soon as it is safe to do so
- Take the keys out of the ignition
- Move out of the drivers seat
- Have a snack or a sweet drink
- Do not drive until 45 minutes after blood glucose has returned to normal and you feel fully recovered to ensure that you are safe to drive.

- Planned exercise for those injecting insulin:
When exercising and using either arms or legs as the focal point for your activity, avoid injecting insulin into those particular sites e.g. it is best not to inject into a leg if you are doing exercise like power walking / running or jogging etc for an extended period of time. This is because the muscles in the legs will absorb the insulin more quickly causing blood glucose levels to drop and potentially lead to a hypo developing. Perhaps using the abdomen or buttock area would be a better option in this case.

DO NOT TOLERATE HYPOS

Ask for advice and learn when to treat and prevent hypoglycaemia happening

Always:

- Carry some form of glucose or sugar with you i.e. glucose tablets.
- Plan ahead if your food or activity is going to be different from normal
- Try to think why a hypo has happened
- Remember alcohol can increase your chances of having a hypo.
- Always carry a Diabetes Identity Card with you.
- Rotate your injection sites

What does a hypo feel like?

Hypo warning signs vary from person to person. You may feel:

- Sweaty
- Shaky/dizzy
- Trembling
- Hungry
- Tingling lips or fingers
- Anxious/irritable
- Palpitations – rapid heart beat
- Tiredness
- Blurred vision
- Headache
- Poor concentration



Others may notice that you are

- Slurring your speech
- Moody
- Uncoordinated, shaking or dizzy
- Pale with glazed eyes
- Agitated, aggressive, irritable or irrational
- Confused - forgetfulness
- Appearing to be drunk



If there is no clear reason for the hypo happening please discuss these episodes with your GP, Practice nurse or a member of the diabetes team for advice.

Treatment of Hypo

If your blood glucose level is **not** below 4mmol/l then you are unlikely to be having a hypo.

You may still feel like eating, in which case go straight to Step 2. Your diabetes specialist nurse will discuss hypos in more detail with you.

Hypos can be divided into 3 types: -Mild, Moderate, Severe

Treatment for Mild Hypo

As soon as you feel mild symptoms you should stop and treat immediately with quick acting carbohydrate glucose or sugar (**see step 1**)

This will raise your blood glucose quickly and you will start to feel better.

If you don't feel any better after 5minutes and your blood glucose levels are still less than **4 mmol/l** then repeat **Step 1** again.

**** Chocolate bars and sweets containing chocolate, toffee or fudge, should not be used to treat a hypo as these foods raise the blood glucose too slowly due to their high fat content. ****

General Advice

- It is important to recognise that you know that you are having a hypo, if possible check your blood glucose levels first to confirm that the symptoms you are experiencing are that of a hypo.
- ***Remember that it can sometimes be difficult to do your blood test if you are hypo.***
- Tell your friends, relatives and colleagues that you have diabetes and let them know if you have a hypo.
- You may have high blood sugar levels for several hours after a hypo. This is caused by the treatment of the hypo and your body's natural response to hypo.
- Night sweats, morning headache and/or wakening during the 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.
- During illness see leaflets or discuss with your healthcare professional about Sick Day rules for patients on insulin.

- Check your blood glucose level – you may need to adjust your insulin dose.

**** If you have recurring hypos – see your doctor or diabetes specialist nurse. ****

Severe Hypo

If a hypo is not treated, you could become unconscious. Explain to your friends and family that if they find you unconscious, they should telephone for an ambulance and tell them a person with diabetes is unconscious.

They must **not** put any food or drink in your mouth if you are unconscious as you could choke, they should:

- **Immediately** call for an ambulance
- Inject you with glucagon if your doctor has prescribed this and provided instructions on how to use it.
- Nurses, if in doubt please refer to Greater Glasgow and Clyde Primary Care Division information Recommendations for Glucagon Administration (Adults)' for further guidance.



What is glucagon?

- It occurs naturally in all our bodies
- It has the opposite effect to insulin. It works by raising blood glucose
- The effect of glucagon only lasts for a short time
- When you are conscious again you must have sugar to stop the hypo returning

When you start feeling better:

- When you are feeling better, have a sweet drink (not a diet version) and treat as mild/moderate hypo to prevent a further hypo, see **Steps 1 & 2** above

STEP 1

Quick acting carbohydrate glucose or sugar such as any one of the following:-



- 3 -4 or more glucose tablets e.g. Dextro Energy, Lucozade tablets
- **OR** 60 – 100mls of Lucozade Original
- **OR** 150mls or 1 small glass of ordinary lemonade/cola (not diet)
- **OR** 5 soft sweets, for example, fruit pastilles
- **OR** 3 level teaspoons of sugar, honey, or jam.
- Check that blood glucose levels have returned to normal

Providing blood glucose levels rise, after 5 – 10 minutes follow **Step 2**.

Step 2.

Slow acting carbohydrate food or drink such as any one of the following.

- 2 plain biscuits/1 cereal bar
- **Or** ½ sandwich
- **Or** 1 piece of fruit
- **Or** glass of milk/ Diet-Light yoghurt
- **Or** your next meal if it is due, ensuring that the meal is high in carbohydrate.



This will prevent the blood glucose/sugar falling again, **but be careful not to over-treat the hypo.**

Avoid alcohol.

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) (**See Step 1**) if you are confused or unable to treat yourself providing you can swallow.

They should be aware that you may not recognise your symptoms and be reluctant to take the sugar they offer.

Again, when you start feeling better have a starchy snack (**see Step 2**) or eat your next meal early. Once your blood glucose levels have returned to normal continue to take your insulin and eat normally.

Your diabetes specialist nurse will discuss hypos in more detail with you. In the unlikely event that you pass out (become unconscious), your friends or family should follow the instructions on how to treat severe hypoglycaemia.

Treatment : Glucogel

If you have a hypo but are 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 you can swallow and should not be given if you are unconscious because of the risk of choking.

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

- You must be able to swallow
- Twist off the GlucoGel tube cap
- Squeeze the tube to insert the gel into the mouth between the teeth and cheek as GlucoGel is absorbed from the lining of the mouth
- Rub the outside of the cheek to aid absorption
- Blood sugar/glucose should rise within 15 minutes
- Follow this treatment with a starchy carbohydrate snack e.g. wholemeal toast or your next meal if it is due
- Recheck blood glucose level
- Treatment can be repeated if necessary

- Follow this treatment with a starchy carbohydrate snack or your next meal if it is due, see **Step 2** above.