My Nutrition

Treating hypoglycaemia or a ‘hypo’ with an insulin pump

Hypoglycaemia (also called a ‘hypo’) is a low level of glucose (sugar) in the blood. A hypo is when your blood glucose level (BGL) is less than 4mmol/L. People with diabetes can be at risk of hypos. This resource can help people who use an insulin pump understand how to respond if you have a hypo.

Hypos can happen for different reasons

- missing a meal
- having too much insulin or medication for the food you eat
- unplanned exercise with no adjustment to medication or food
- alcohol

Common hypo symptoms

- feeling shaky
- sweating
- dizziness
- headache
- hunger
- blurred vision
- being irritable or mood changes
- feeling weak or tired

If you think you are having a hypo

Step 1: Test BGL.

- If less than 4mmol/L, treat with 1 serve (15g) of fast-acting carbohydrate (see table for examples).
- If less than 2.5mmol/L, treat with 1 serve (15g) of fast-acting carbohydrate (see table for examples) AND suspend pump for 30 minutes or until BGL is more than 4mmol/L
- Do NOT bolus insulin for the carbohydrate that was used for the hypo treatment

This is a consensus document from Dietitian/ Nutritionists from the Nutrition Education Materials Online, "NEMO", team.

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Queensland Government

STEP 1 **Fast-acting carbohydrate** 1 serve (15g carbohydrate)
• 100ml Lucozade* • 7 jellybeans • 150ml soft drink (non-diet) • 200ml fruit juice • 3 teaspoons sugar or honey • Glucose gel or glucose tablets equal to 15g* (talk with your diabetes team) *Best options for people taking acarbose medication Note: Sweet foods that are high in fat (e.g. chocolate or ice-cream) are **not** the best foods to treat a hypo. Fat slows down the speed that sugar goes into your blood.

Step 2: Re-test BGL in 15 mins. If BGL is still less than 4mmol/L repeat step 1**.**

Step 3: Usually there is no need to have extra slower-acting carbohydrate with an insulin pump. If your next meal or snack is more than 30minutes aware you may choose to have 15g of slower acting carbohydrate (see table below for examples).

STEP 3 **Slower-acting carbohydrate** 1 serve (15g carbohydrate)
• 1 slice of bread • 1 piece of fruit (e.g. banana, apple) • 1 cup (250ml) plain milk • 1 tub (150-200g) yoghurt (non-diet) • 2 plain sweet biscuits (e.g. Nice, Arrowroot)

Step 4: Test BGL every 1-2 hours for the next 4 hours

Note: If you feel hypo symptoms but are unable to test your BGL, treat as a hypo with step 1. If there is no improvement after 15minutes seek medical help as there may be another reason for your symptoms.

To treat hypos in children

- For children under 4 years of age use 7.5g of carbohydrate (half the amount suggested in the tables)
- For children over 4 years of age use of 15g carbohydrate (same as an adult)

Hypo emergencies

If a hypo is not treated quickly this can be very dangerous. If the person is unconscious, drowsy or unable to swallow**, do not give food or fluid by mouth.**

This is an EMERGENCY

- Place the patient on their side and clear the airway
- Call an ambulance (000) and state 'diabetic emergency'
- Give glucagon pen if available and you are trained to give it
- When the person regains consciousness, extra carbohydrate (see table) should be eaten. This to stop blood glucose levels falling again.

Glucagon

Is a hormone that raises BGL. It should only be injected by someone trained to give it. People with diabetes should make sure family members, friends or people they live with are trained to give glucagon. A doctor or a Credentialed Diabetes Educator can teach people how to use glucagon injections.

Hypoglycaemia unawareness

Some people feel no hypo symptoms or only experience symptoms when their BGL drops very low. This means they can have a BGL less than 4mmol/L with no symptoms. If you have hypoglycaemia unawareness it is important to test your BGL regularly, especially before driving. It is also important to speak with your diabetes team about the best way to manage this condition.

Key points

- Learn how to recognise and respond to a hypo
- It is important to always carry hypo treatment
- If hypos happen often your pump settings might need to be changed. Talk to your diabetes team about this.

For further information contact your Dietitian or Diabetes team

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