

# hypoglycaemia & diabetes

**Hypoglycaemia is a condition that occurs when the blood glucose level has dropped too low, usually below 4mmol/L, although some people may have symptoms at a slightly higher level. Hypoglycaemia is commonly referred to as a 'hypo', low blood glucose or insulin reaction. It is important to treat hypoglycaemia quickly to stop the blood glucose level from falling even lower.**

## What are the main causes of hypoglycaemia?

**Hypoglycaemia can be caused by one or a number of events such as:**

- |                               |  |
|-------------------------------|--|
| > Delaying or missing a meal  | > Not eating enough carbohydrate       |
| > Unplanned physical activity | > More strenuous exercise than usual   |
| > Drinking alcohol*           | > Too much insulin or diabetes tablets |

While these are known causes of hypoglycaemia, in many cases no specific cause can be identified.

## What are the symptoms?

**While symptoms vary from person to person, common feelings are:**

- |  |                |
|--|----------------|
| > Weakness, trembling or shaking                   | > Sweating     |
| > Light headedness                                 | > Headache     |
| > Lack of concentration/behaviour change           | > Dizziness    |
| > Tearful/crying                                   | > Irritability |
| > Numbness or tingling around the lips and fingers | > Hunger       |
| > Palpitations                                     |                |

If you feel any of these symptoms, test your blood glucose level if time and circumstances permit. If you are unable to do so, treat as a 'hypo' just to be sure. If in doubt, TREAT.

**Hypoglycaemia is most common in people who inject insulin or are taking tablets to manage their diabetes. It is not a problem for those who do not take medication to manage their diabetes. Talk to your doctor, credentialed diabetes educator or pharmacist to find out your risk.**



# hypoglycaemia & diabetes

## How is a 'hypo' treated?

The first thing to do is to be sure you're safe. For example, if you're driving a vehicle, pull over to the side of the road. Then:

### STEP 1 – Most important!

Have some easily absorbed, fast acting carbohydrate immediately, for example:

- Glucose tablets equivalent to 15 grams carbohydrate **OR**
- 6–7 jellybeans **OR**
- ½ can regular soft drink (not 'diet ') **OR**
- 3 teaspoons sugar or honey **OR**
- ½ glass fruit juice

**Please Note:** For those taking Glucobay® (Acarbose) tablets, 'hypos' must be treated with glucose.

If circumstances permit, re-test blood glucose level in 10-15 minutes to see if it has risen above 4mmol/L. It may take 10–15 minutes to see a rise in blood glucose levels. If symptoms are still present or your blood glucose level remains below 4mmol/L, repeat Step 1.

### STEP 2

If your next meal is more than 20 minutes away, eat some longer acting carbohydrate. This could be one of the following:

- A slice of bread **OR**
- 1 glass of milk or soy milk **OR**
- 1 piece of fruit **OR**
- 2–3 pieces of dried apricots, figs or other dried fruit **OR**
- 1 tub natural low fat yoghurt

For more individualised advice, speak to a diabetes health professional.

## What happens if it's not treated?

If not treated quickly, the blood glucose level can continue to drop which may lead to:

- |                        |                                 |
|------------------------|---------------------------------|
| > Loss of coordination | > Slurred speech                |
| > Confusion            | > Loss of consciousness/fitting |

If this happens, you will need the help of others!

## What to do if the person is unconscious, drowsy or unable to swallow:

### **THIS IS AN EMERGENCY!**

**Do not give any food or drink by mouth.**

**Here's what needs to be done:**

- Place the person on their side making sure their airway is clear.
- Phone for an ambulance (dial 000) stating a 'diabetic emergency'.
- Give an injection of Glucagon if available and you are trained to give it.
- Stay with the person until the ambulance arrives.
- When the person regains consciousness, he or she will need carbohydrates to maintain the blood glucose level above 4mmol/L.

### **Glucagon**

Glucagon is a hormone which raises the blood glucose level and is injected in a similar way to insulin. Glucagon is recommended to reverse severe hypoglycaemia in people with diabetes. If you are able to treat your own 'hypo', you do not need Glucagon which is always given by another person. Your doctor or credentialled diabetes educator will recommend you have Glucagon on hand in case of a severe 'hypo' and will show you, your family and friends how to use it.

### **Hypoglycaemia unawareness**

Some people feel no symptoms of a 'hypo', or only experience symptoms when the blood glucose level drops very low. This problem is more likely to occur in someone who has had diabetes for a number of years or in people who have 'hypos' frequently. If you have hypoglycaemia unawareness, it is important to check your blood glucose levels regularly. Talk to your doctor or diabetes educator about the best way to manage this condition and what precautions you need to take.

# hypoglycaemia & diabetes

## What else should I do?

- > Wear identification that says you have diabetes.
- > Make a note in your blood glucose record diary of any 'hypos' you have and discuss it with your doctor or diabetes educator at your next visit.
- > Make sure your family, friends, co-workers, school staff and carers know how to recognise and treat 'hypos'.
- > Look for the cause of your 'hypo' so you can try to prevent the situation from occurring again.
- > Contact your doctor or diabetes educator if you are having 'hypos' often.
- > If taking insulin or diabetes tablets that can cause 'hypos', always carry fast acting carbohydrate with you.
- > If taking medication called Acarbose (Glucobay®), carry pure glucose with you such as glucose tablets, glucose gel or Lucozade.
- > Refer to the *Alcohol and Diabetes* information sheet for advice about drinking alcohol and 'hypos'\*.
- > Eat carbohydrates if you are drinking alcohol.
- > Before driving a motor vehicle, test your blood glucose level and make sure it is above 5mmol/L\*\*.

\* The risk of hypoglycaemia increases the more alcohol you drink. Refer to the *Alcohol and Diabetes* information sheet.

\*\* Australian medical standard for licensing drivers of commercial and private vehicles ([www.austroads.com.au](http://www.austroads.com.au)).

## Would you like to join Australia's leading diabetes organisation?

- > Dietary services
- > Free magazines
- > Children's services
- > Educational literature
- > Product discounts
- > Support groups

For more information phone **1300 136 588** or visit your State/Territory Organisation's website:

<b>ACT</b>	<a href="http://www.diabetes-act.com.au">www.diabetes-act.com.au</a>	<b>NSW</b>	<a href="http://www.australiandiabetescouncil.com">www.australiandiabetescouncil.com</a>
<b>NT</b>	<a href="http://www.healthylivingnt.org.au">www.healthylivingnt.org.au</a>	<b>QLD</b>	<a href="http://www.diabetesqueensland.org.au">www.diabetesqueensland.org.au</a>
<b>SA</b>	<a href="http://www.diabetessa.com.au">www.diabetessa.com.au</a>	<b>TAS</b>	<a href="http://www.diabetestas.com.au">www.diabetestas.com.au</a>
<b>VIC</b>	<a href="http://www.diabetesvic.org.au">www.diabetesvic.org.au</a>	<b>WA</b>	<a href="http://www.diabeteswa.com.au">www.diabeteswa.com.au</a>

The design, content and production of this diabetes information sheet have been undertaken by:

- > **ACT** Diabetes ACT
- > **NT** Healthy Living NT
- > **SA** Diabetes SA
- > **VIC** Diabetes Australia – Vic
- > **NSW** Australian Diabetes Council
- > **QLD** Diabetes Australia – Queensland
- > **TAS** Diabetes Tasmania
- > **WA** Diabetes WA

The original medical and educational content of this information sheet has been reviewed by the Health Care and Education Committee of Diabetes Australia Ltd. Photocopying this publication in its original form is permitted for educational purposes only. Reproduction in any other form by third parties is prohibited. For any matters relating to this information sheet, please contact National Publications at [dapubs@tpg.com.au](mailto:dapubs@tpg.com.au) or phone 02 9527 1951.

**Health professionals:** For bulk copies of this resource, contact your Diabetes State/Territory Organisation as listed.

Revised 2012 A diabetes information series from Diabetes State/Territory Organisations – Copyright© 2012