

Healthy Eating Guidelines for Adults with Diabetes and Low Blood Glucose

Diabetes and Low Blood Glucose (Sugar)

Low blood glucose, also called hypoglycemia, occurs when your blood glucose level is less than 4.0 mmol/L. This can happen when diabetes medicine (insulin or pills), food, and exercise are out of balance.

Low blood glucose can be mild, moderate, or severe.

- If you have mild or moderate low blood glucose, less than 4.0 mmol/L, you will still be able to treat your low blood glucose on your own.
- If you have severe low blood glucose, less than 2.8 mmol/L, you will likely need someone to help you treat your low blood glucose.

The information in this fact sheet will help you to prevent and to treat low blood glucose.



Steps you can take

Preventing Low Blood Glucose

To help prevent low blood glucose:

- Take the correct dose of your diabetes medicine (insulin or pills) at the right time.
- Eat meals on time.
- If you take insulin or insulin releasing pills such as Diamicron®, Diabeta®, Starlix®, or GlucoNorm®, test your blood glucose before, during, and after exercise:
 - Eat about 15 to 30g of carbohydrate if your blood glucose level is less than 5.5 mmol/L before exercising. The carbohydrate in food is turned into glucose that provides energy for your body.
 - Frequent testing tells you how exercise affects your blood glucose so you can plan food and medications around your activities.
 - Speak to your doctor for more information about your medications.

Drinking alcohol may hide the symptoms of a low blood glucose level. If you take insulin to treat your diabetes, drinking alcohol can make you have low blood glucose for up to 24 hours after drinking. If you choose to drink alcohol, limit intake to:

- 2 standard drinks per day and less than 10 drinks per week for women
- 3 standard drinks per day and less than 15 drinks per week for men

One standard drink is:

- 341 mL (12 oz.) bottle of 5% beer, cider or cooler
- 142 mL (5 oz.) glass of 12% wine
- 43 mL (1.5 oz.) shot of 40% spirits.

If you drink alcohol, it's best to have it with food and to test your blood sugar frequently. Talk to your doctor about safe alcohol use.

Treating a Low Blood Glucose

If you have low blood glucose, you must treat it right away with a form of carbohydrate that brings your blood glucose level up quickly. If possible, test your blood glucose level before you treat. If you can't test, treat anyway. Once you have treated the low blood glucose, test your blood glucose again in 15 minutes.

Try not to over-treat a low blood glucose. Over-treating can make your blood glucose go too high.

This table describes how to treat low blood glucose based on the symptoms you may feel.

<i>Degree of Low Blood Glucose</i>	<i>Symptoms</i>	<i>Treatment</i>
Mild or moderate	Trembling or shaking, rapid heartbeat,	Take 15 grams of carbohydrate such as:

<p>Your blood glucose is less than 4.0 mmol/L.</p>	<p>sweating, feeling anxious, hunger, nausea, tingling, unable to concentrate, confusion, weakness, drowsiness, dizziness, headache, difficulty speaking, vision changes.</p>	<ul style="list-style-type: none"> • 15 g glucose (also called dextrose) tablets • 15 mL (3 tsp) or 3 packets of table sugar dissolved in water • 175 mL (¾ cup) of juice • 175ml (¾ cup) of regular pop • 6 LifeSavers® • 15 mL (3 tsp) of honey <p>Wait for 15 minutes and test your blood glucose level again.</p> <ul style="list-style-type: none"> • If your blood glucose is still below 4.0 mmol/L, repeat treatment. <p>If you take acarbose (Glucobay® or Prandase®):</p> <ul style="list-style-type: none"> • Treat with 15 g glucose (also called dextrose) tablets. • If glucose tablets are not available, treat with 250 to 375 mL (1 to 1½ cups) of milk or 15 mL (3 tsp) honey.
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Degree of Low Blood Glucose	Symptoms	Treatment <i>* See previous section for treatment if you take acarbose</i>
Severe - still conscious and able to swallow.	As above, but symptoms may progress so that you need help from another person to	<p>Take 20 grams of carbohydrate, such as:</p> <ul style="list-style-type: none"> • 20 g glucose (also called dextrose) tablets

<p>Your blood glucose may be less than 2.8 mmol/L.</p>	<p>treat your low blood glucose.</p>	<ul style="list-style-type: none"> • 25 mL (5 tsp) or 5 packets of table sugar dissolved in water • 250 mL (1 cup) of juice • 250 mL (1 cup) of regular pop • 8 LifeSavers® • 20 mL (4 tsp) honey <p>Wait for 15 minutes and test your blood glucose level.</p> <ul style="list-style-type: none"> • If blood glucose is still below 4.0 mmol/L, repeat treatment with 15 grams of carbohydrate. <p>If you take acarbose (Glucobay® or Prandase®):</p> <ul style="list-style-type: none"> • Treat with 20 g glucose (also called dextrose) tablets. • If glucose tablets are not available, treat with 375 mL (1½ cups) of milk or 20 mL (4 tsp) honey.
<p>Severe – unconscious or unable to swallow.</p>	<p>As above, but another person must give treatment.</p>	<p>Contact emergency services immediately. Treat with glucagon injections.</p>

After Treating a Low Blood Glucose:

- If it is meal or snack time, have your usual meal or snack. This helps prevent low blood glucose from coming back.
- If a meal is more than one hour away, eat a snack with 15 grams of carbohydrate and some protein such as:
 - a piece of bread with a slice of meat or cheese

- a slice of bread with 15 mL (1 Tbsp) peanut butter
- 125 mL (½ cup) fruit flavoured yogurt.



Additional Resources

- Diabetes Canada, Just the Basics <http://guidelines.diabetes.ca/docs/patient-resources/just-the-basics-EN.pdf>

These resources are provided as sources of additional information believed to be reliable and accurate at the time of publication and should not be considered an endorsement of any information, service, product or company.



Notes

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