

# Diabetes type 2

**Diabetes is a health condition where the body has difficulty converting glucose (sugar) into energy. In type 2 diabetes, the body cannot make or use insulin properly. A person with type 2 diabetes may need medicines or insulin to help the body change glucose into energy.**

Glucose is the main source of energy for our body cells. It is a type of sugar that comes from the carbohydrates in food. In type 2 diabetes, body cells cannot use glucose properly. This can be because they cannot use insulin (a hormone that helps our body cells use glucose) properly or because the pancreas does not make enough insulin. A person with type 2 diabetes may develop high blood glucose levels.

Type 2 diabetes is the most common form of diabetes. A family history of type 2 diabetes and an unhealthy lifestyle put people at higher risk of developing type 2 diabetes. It often occurs together with high blood pressure, high blood cholesterol and being overweight.

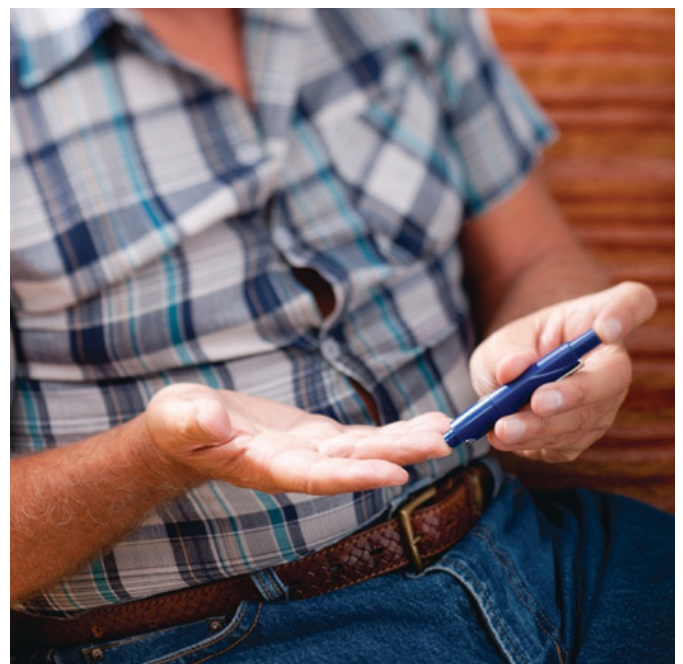
## Signs and symptoms

Symptoms usually develop slowly. They are due to high blood glucose levels (hyperglycaemia) and changes in the way the body uses glucose (metabolism).

Symptoms include:

- feeling very thirsty
- passing more urine
- always feeling tired
- always feeling hungry
- blurred vision
- frequent infections (e.g. thrush, cystitis).

Blood glucose levels may be high for a long time before symptoms appear.



## Long term effects

Over time, diabetes can damage blood vessels and nerves, leading to complications such as:

- eye damage (retinopathy), which can cause vision impairment and blindness
- kidney damage (nephropathy)
- heart disease
- stroke
- nerve pain or numbness (neuropathy)
- slow healing wounds (e.g. leg and foot ulcers)
- erectile dysfunction (male impotence)

To limit the symptoms and long-term effects of type 2 diabetes, treatment usually aims to keep blood glucose levels before meals within the target range of 6–8 mmol/L.

## Treatment

Treatment aims to keep blood glucose levels as close to the target range as possible with healthy eating, physical activity and medicines.

Several different types of medicines are used to treat type 2 diabetes. They work in different ways to lower blood glucose. Most of the medicines can be taken as tablets, but some must be injected. Some people need to use more than one type of diabetes medicine and some people need insulin injections.

People with type 2 diabetes may need to monitor their blood glucose levels using a blood glucose meter.

## Hypoglycaemia (low blood sugar)

Hypoglycaemia occurs if you have too little glucose (sugar) in your blood (below 4 mmol/L). It may occur if doses of diabetes medicines or insulin are not balanced to food intake and physical activity. The symptoms of hypoglycaemia (called a 'hypo') are different for different people. They include:

- shaking, weakness, dizziness
- sweating
- fast heartbeat
- hunger
- numbness or tingling around the lips
- headache
- unusual behaviour (e.g. irritable, drowsy, confused)
- blurred vision
- slurred speech
- loss of consciousness.

A 'hypo' needs immediate treatment.

A person with diabetes who has hypoglycaemia needs to have:

- quick-acting carbohydrate (glucose)

(e.g.  $\frac{1}{2}$  glass soft drink or fruit juice (not 'diet' drinks), 3 teaspoons sugar or honey, 6–7 jelly beans), **then**

- longer-acting carbohydrate within 20 minutes (e.g. a meal, fruit, yoghurt, milk, muesli bar).

**Note:** If a person with diabetes is unconscious or unable to swallow, do not give them anything by mouth. Give first aid and phone 000 for an ambulance.

## National Diabetes Services Scheme (NDSS)

The NDSS is an Australian Government program that subsidises the cost of some diabetes equipment. To access the NDSS you must complete a NDSS registration form, have it signed by a doctor or credentialed diabetes educator (CDE), and send it to your state or territory diabetes organisation. Many pharmacies are NDSS access points where you can lodge NDSS forms and buy the subsidised equipment.

## Self care

- Have a healthy diet. Eat a variety of vegetables, fruits, wholegrain/ wholemeal foods, protein-rich foods (e.g. nuts, lean meats, fish, eggs, beans) and low-fat dairy foods every day. Limit or avoid foods high in fat, sugar or salt.
- Choose foods and drinks with no added sugar, or sweetened with a sugar substitute (e.g. diet food and drinks).
- Exercise at a moderate level for at least 30 minutes on all or most days of the week.
- Keep to a healthy body weight.
- Limit alcohol intake to no more than 10 standard drinks per week, with no more than 4 standard drinks on any one day. Eat carbohydrate foods when drinking alcohol.
- Don't smoke. Smoking increases the complications of diabetes.

- Check your blood glucose levels as advised by your diabetes healthcare team.
- Follow the use and care instructions for your blood glucose meter.
- Follow the directions for your diabetes medicines.
- Have regular checks for your blood pressure, cholesterol, eyes and kidneys.
- Take extra care of your feet and have them checked regularly by a doctor or podiatrist.
- Always have some quick-acting carbohydrate (glucose) with you.
- Teach your friends, family and co-workers how to recognise and treat a 'hypo'.
- Make a 'sick day plan' with your doctor and follow it when unwell.
- Link up with the diabetes team in your area. Diabetes teams include doctors, diabetes educators, dietitians, podiatrists and pharmacists.
- Join Diabetes Australia and NDSS.
- Wear identification (e.g. a *MedicAlert* bracelet) that says you have diabetes.

## Important

Factors that increase your risk of type 2 diabetes include:

- a family history of diabetes
- age over 55 years (the risk increases as you age)
- age over 45 years, and are overweight or have high blood pressure
- age over 35 years, and from an Aboriginal, Torres Strait Islander, Maori, Pacific Islander, Indian or Chinese cultural background
- a woman who has given birth to a child over 4.5kg, had gestational diabetes or polycystic ovarian syndrome
- a lack of physical activity
- smoking
- a poor diet

If you have any of these risk factors for diabetes, seek medical advice.

## For more information

**Baker IDI Heart and Diabetes Institute**

Website: [www.bakeridi.edu.au](http://www.bakeridi.edu.au)

**Diabetes Australia**

Phone 1300 136 588

Website: [www.diabetesaustralia.com.au](http://www.diabetesaustralia.com.au)

**Healthdirect Australia** Phone: 1800 022

222 Website: [www.healthdirect.gov.au](http://www.healthdirect.gov.au)

**NPS MedicineWise**

**Medicines Line**

Phone: 1300 MEDICINE (1300 633 424)

Website: [www.nps.org.au](http://www.nps.org.au)

**Consumer Medicine Information (CMI)**

Your pharmacist can advise on CMI leaflets.

**Poisons Information Centre**

In case of poisoning phone 13 11 26 from anywhere in Australia.

*Pharmacists are medicines experts.*

*Ask a pharmacist for advice when choosing a medicine.*

## Related Fact

### Cards

» Alcohol Blood glucose

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» Exercise and the heart Fat

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## Your Self Care

### Pharmacy: