

FACT SHEET:

Understanding type 1 diabetes

Type 1 diabetes is a less common form of diabetes than type 2 diabetes. Ten to 15 out of 100 people with diabetes have type 1 diabetes.

If you have type 1 diabetes, looking after your diabetes is important for good health. It can reduce your risk of developing diabetes-related complications, such as damage to the eyes, kidneys, nerves and blood vessels.

What is type 1 diabetes?

When a person eats and drinks carbohydrates (carbs) such as bread, pasta, rice, cereals, fruits, starchy vegetables, milk and yoghurt, it is broken down into a type of sugar called glucose. Insulin is a hormone that allows glucose to move from the bloodstream into the body's cells. The cells use glucose for energy.

When you have type 1 diabetes, your pancreas cannot make insulin. This happens because the body's immune system destroys the beta cells in the pancreas. It is the beta cells that make insulin. This results in too much glucose, or sugar, in the bloodstream.

Why does type 1 diabetes develop?

The exact cause of type 1 diabetes is not known. We do know that some people carry genes that make them more likely to develop type 1 diabetes. Diabetes occurs in these people when something triggers the immune system to start destroying the beta cells in the pancreas.

Type 1 diabetes is usually diagnosed in younger people, but it can be diagnosed at any age.

Can type 1 diabetes be prevented or cured?

Currently, nothing can be done to prevent or cure type 1 diabetes, but researchers are working on this. If type 1 diabetes is managed well, you can continue to lead a healthy life.

What are the symptoms of type 1 diabetes?

The most common symptoms of undiagnosed type 1 diabetes include:

- unexplained weight loss
- being thirsty and drinking a lot more than usual
- going to the toilet to pass urine more often
- feeling tired and low on energy
- genital thrush
- mood changes.

The symptoms of type 1 diabetes can develop quickly and need immediate medical attention. If type 1 diabetes is left untreated, diabetic ketoacidosis (also known as DKA) will develop.

Diabetic ketoacidosis occurs when the liver makes chemicals, called 'ketones' because there is not enough insulin in the body to use glucose for energy. So, the body breaks down fat as a source of energy instead. This breakdown turns fat into ketones, a type of acid, and sends them into the bloodstream. Ketones in large amounts are toxic to the body as the blood becomes too acidic. High glucose levels also result in dehydration and a loss of body salts and fluids. This is life-threatening and requires urgent hospital treatment.

How is type 1 diabetes diagnosed?

- If your doctor thinks your symptoms suggest you have type 1 diabetes, your blood will be checked for high glucose levels, and your blood or urine for ketones. The body makes ketones in large amounts when there is little or no insulin. If ketones are present, you may have type 1 diabetes. A high blood glucose level will confirm the diagnosis.
- Your doctor will also order blood tests to look for autoantibodies. These tests can help to work out if you have autoimmune type 1 diabetes.
- If you have symptoms of type 1 diabetes, see a doctor without delay and ask for a diabetes check. Early diagnosis of type 1 diabetes can prevent diabetic ketoacidosis.

How is type 1 diabetes managed?

Type 1 diabetes is managed by replacing the insulin your body can no longer make. Insulin is given by injection or by using an insulin pump. Your doctor or diabetes nurse practitioner will work with you to decide on the type of insulin you need and recommend how often you need to take it. This will depend on your lifestyle and individual needs. As well as taking insulin, you will need to check your blood glucose levels regularly and learn how to balance insulin, food and activity.

Managing diabetes on a day-to-day basis is important for keeping blood glucose levels in your target range. This helps you to stay well in the short-term and reduces the risk of long-term complications, such as damage to the eyes, kidneys, nerves and blood vessels.

Who can help with your type 1 diabetes?

Managing diabetes is a team effort involving you, your family, friends, school and work colleagues, and health professionals.

Many different health professionals can help you, including:

- your general practitioner (GP)
- an endocrinologist (diabetes specialist doctor)
- a paediatrician
- a diabetes educator or diabetes nurse practitioner
- a dietitian
- an exercise physiologist
- a podiatrist
- a counsellor, social worker or psychologist.



More information and support

- Go to ndss.com.au to:
 - » find more resources such as the 'Making healthy food choices', 'Understanding food labels', 'Insulin', 'Carbohydrate counting' and other fact sheets
 - » access online programs such as the Carb Counting and the Ready, Set, Go - Let's Move programs
 - » locate self-management education programs and support in your state or territory.
- Call the NDSS helpline on **1800 637 700** and ask to speak to a diabetes educator or dietitian.
- To find a diabetes educator, go to the search function on the website of the Australian Diabetes Educators Association at adea.com.au.
- To find a dietitian, call Dietitians Australia on **1800 812 942** or go to dietitiansaustralia.org.au.
- Go to Healthdirect.gov.au to find a health service or health professional near you.





Top tips

- If you have type 1 diabetes, you have to replace the insulin your body can no longer make. Insulin is given by injection or by using an insulin pump.
- Checking your blood glucose levels regularly and learning how to balance insulin, food and activity is part of managing type 1 diabetes. Your diabetes health professionals will work with you to help you manage your diabetes.
- Managing type 1 diabetes is a team effort. You can involve your family, friends and diabetes health professionals.



Notes

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The NDSS and you

Whether you have just been diagnosed with diabetes, or have been living with diabetes for a while, the NDSS provides a range of support services, information, and subsidised products to help you manage your diabetes, stay healthy and live well. For access to more resources (including translated versions), or to find out more about support services, go to **ndss.com.au** or call the NDSS Helpline on **1800 637 700**.

This information is intended as a guide only. It should not replace individual medical advice and if you have any concerns about your health or further questions, you should contact your health professional.