What is type 1 diabetes?

When someone has diabetes, the body is unable to maintain normal levels of glucose in the blood.

Glucose, which is a form of sugar, is the main source of energy for our bodies. It comes from carbohydrate foods we eat including bread, pasta, rice, cereals, fruit, starchy vegetables, legumes, milk, yoghurt and sweets. The body breaks carbohydrates down to glucose which then enters the blood stream. For glucose to enter the cells e.g. your muscles, and be used for energy, a hormone called insulin must be available.

Type 1 diabetes occurs when the pancreas cannot produce insulin because the cells that make the insulin have been destroyed by the body’s own immune system. Type 1 diabetes is treated by insulin.

Who is at risk of developing type 1 diabetes?

Type 1 diabetes usually occurs in people under 30 years of age, but can occur at any age. About 15% of all cases of diabetes are type 1.

Can type 1 diabetes be prevented or cured?

Nothing can be done to prevent or cure type 1 diabetes. However a great deal of research is being done to find a cure. By controlling your blood glucose levels, maintaining a healthy lifestyle and with the support of a diabetes team including your doctor, you can significantly reduce your risk of developing health complications associated with diabetes.

How should I manage type 1 diabetes?

You need to manage your diabetes by getting your blood glucose levels within the target range recommended by your doctor or diabetes specialist. This means having insulin injections every day while maintaining a healthy eating plan and regular physical activity. You and your doctor will decide on the type of insulin and how often you need it each day. Managing your blood glucose levels daily can help you to prevent short term symptoms and possible long term complications associated with diabetes, such as eye, kidney or nerve damage. Refer to the National Diabetes Services Scheme (NDSS) website for more information on blood glucose monitoring at ndss.com.au.

Some tips for managing your diabetes include:

» Test your blood glucose levels regularly and keep a record of them. If the levels are often too low or too high, your doctor will discuss with you whether there is a need to adjust your diabetes management.

» Wear a medical alert ID [a wristband, tags or jewellery] in case of an emergency.

» Follow a healthy eating plan – your dietitian will be able to help you with this.

» Be as active as possible.
» Have regular check-ups with your doctor, including checking your eyes and feet.
» Don’t be afraid to ask for help from your diabetes healthcare team whenever you need it.

Call the NDSS helpline 1300 136 588 to find out about type 1 diabetes education programs and other support services that are available in your area. Also ask about responsible sharps disposal and how to get your diabetes supplies.

Who can help me with my diabetes?

Diabetes is best managed with the support of a diabetes care team, which includes your family and friends, your doctor and diabetes specialist, and other health professionals such as:
» your endocrinologist
» your regular doctor
» a credentialled diabetes educator
» an accredited practising dietitian
» a registered podiatrist
» an accredited exercise physiologist
» a counsellor.

Your doctor may be able to refer you or provide advice about who should be in your diabetes team. Your diabetes team may change as your needs change, but they will help you to learn about your diabetes, and provide support and guidance so you can confidently make decisions about managing your diabetes.

When you register with the NDSS, you will be provided with support to help you manage your diabetes. Speak to your doctor about registering on the NDSS or call the NDSS helpline on 1300 136 588.

Do I have to eat special foods?

You do not need to buy expensive foods or prepare special meals if you have diabetes. However it is important to eat healthy foods to help manage your blood glucose levels. Make sure you have regular meals and don’t skip meals, and choose a variety of foods from each of these groups:
» a small amount of fish, skinless chicken, lean meat or egg, or if you are a vegetarian, soy, legumes or nuts
» lots of salads and non-starchy vegetables, such as broccoli, cabbage, tomato, asparagus and carrots
» a small amount of wholegrain bread and cereals, starchy vegetables (e.g. corn, pumpkin or potato), pasta, rice (e.g. basmati), beans and lentils, fruit or low fat milk and yoghurt.

Speak to a dietitian or visit the NDSS website ndss.com.au to find out more about how to make healthy food choices.

Do I need to cut out sugar?

A small amount of sugar is okay but you should avoid sweet drinks, foods and lollies. For more information visit the NDSS website ndss.com.au

Are there other foods I should avoid?

Too much salt can increase your blood pressure, which can increase the long term damage from diabetes. Avoid adding extra salt when cooking and limit the amount of processed foods you eat, such as tinned food, fast foods or processed meats like sausages, ham and bacon.

You should also limit foods which are high in fat because they will make you gain weight and can increase your cholesterol and the risk of heart disease. High fat foods that you should avoid include the fat on meat, skin on chicken, butter, cheese, cream, copha, coconut milk, fast food or fried take-away foods, pies, pasties, sausage rolls, and processed meats such as sausages, ham and bacon.

Can I still drink alcohol?

Alcohol can increase your weight and increase the risk of hypoglycaemia (low blood glucose). If you drink alcohol, choose light beer, wine or diet mixers, and don’t have more than two standard drinks per day. If you need more information, talk to your doctor or visit www.ndss.com.au/myd

What about smoking?

Smoking affects your health badly. Over time, smoking can damage blood vessels and may cause them to block up. If you would like help to stop smoking contact Quitline on 13 78 48.

Why should I exercise?

Regular physical activity can improve your muscle and heart function, and reduce tension and stress. Exercise and healthy eating can help to lower blood fats and blood pressure and reduce the risk of diabetes complications. If you have not been active for a long time but plan to do more exercise, you should first talk to your doctor. Your doctor will check to see if it is safe for you to begin exercising and will help you with your exercise plan.
You should aim for 30 minutes of exercise on most, preferably all, days of the week. The National Physical Activity Guidelines for Adults are available from the Department of Health website health.gov.au.

Here are some tips for being safe when you exercise:

» warm up and stretch before and after exercise and build up your exercise gradually
» make sure you wear comfortable, well-fitting shoes
» drink plenty of fluids
» always carry some fast-acting carbohydrate food or drink in case of a hypo.

What about other medications?

Other medications may affect your diabetes medication or have side effects. Always take a list of all your medications to each appointment with your doctor, including any that you bought over the counter or any complementary (herbal) medications.

Monitoring your blood glucose

An aim of diabetes treatment is to keep blood glucose in the recommended target range. You need to balance your food with your activity, lifestyle and insulin. You need to test your blood glucose levels every day – your doctor or diabetes specialist will be able to advise you when and how to test your blood glucose.

Keeping a record of your blood glucose levels is important to help you and your diabetes team to see if you need to have your insulin dose adjusted or your diet or exercise regime changed. Take your record to all of your appointments. There are useful mobile phone apps or website programs available to help you keep a record. For example, RealTime Health offers free mobile apps for diabetes self-management. You can find these on the App Store or Google Play by searching for 'realtimehealth'.

If you need to test your blood glucose levels, your doctor or diabetes specialist will advise which blood glucose testing meter is best for you. To use a meter you will need test strips. You can get your strips from the NDSS and your meter from your NDSS Agent or NDSS Access Points such as pharmacies. Call the NDSS on 1300 136 588 for more information.

Your lancets (finger prickers), syringes, pen needles and used blood glucose strips must be disposed of safely. You should put them in an approved yellow sharps container instead of your regular rubbish, and the container should be kept out of reach of children. Your local council or public hospital and some pharmacies provide sharps containers. Talk to your doctor or call the NDSS on 1300 136 588 for more information.

Hypoglycaemia

Being on insulin means you may be at risk of hypoglycaemia or a hypo (low blood glucose). A hypo can happen quickly due to missing a meal, taking too much insulin, unplanned exercise or drinking too much alcohol. Early symptoms can vary but may include hunger, sweating, weakness, trembling, headache, dizziness, moodiness, double vision and tingling of the mouth and lips. If the hypo is not treated it can lead to a loss of coordination, slurred speech, confusion or a loss of consciousness.

Talk to your diabetes health care team about how to recognise and treat a hypo. If you feel some of the signs described above, make sure you are safe (e.g. pull over to the side of the road if you are driving) and have some fast-acting carbohydrate food or drink such as:

» 6-10 jelly beans (approximately 15-20 grams)
» Glucose tablets (15-20 grams)
» Fruit juice (150-200mls or approximately half a cup)
» Lucozade (100-200mls or approximately half a cup)
» Soft drink (150-200mls or approximately half a can) – not diet or low calorie drinks

Hyperglycaemia

Hyperglycaemia (high blood glucose) can happen slowly or suddenly, and lead to you feeling thirsty, tired, lacking energy, or passing lots of urine or getting blurry vision. In severe cases untreated hyperglycaemia can lead to a coma. Talk to your diabetes health care team about how to recognise and treat hyperglycaemia.
If you get these symptoms and your blood glucose level is high, contact your doctor or diabetes educator for advice about how to increase your insulin dosage. Test your blood glucose every 2-4 hours, and test your blood or urine for ketones (your doctor can advise how to test for ketones). Remember that a high blood glucose level every now and then is not a problem, but if your levels remain high for a few days or more, contact your doctor promptly.

Will diabetes affect my driving?

Driving is a complex skill and extra precautions need to be taken to help increase your safety on the road if you have diabetes. The main risk for people who take insulin is hypoglycaemia or a ‘hypo’ (low blood glucose). If you miss a meal for example, a hypo can happen quickly. Be prepared for a hypo by:

» testing your blood glucose before driving and make sure it is above 5 mmol/L
» testing your blood glucose every two hours when driving and making sure it is above 5 mmol/L
» carrying a diabetes ID in your car
» always carrying a fast acting carbohydrate food or sugary drink in your car
» not driving with for more than 2 hours without having a snack
» not delaying or missing a main meal.

If you experience a hypo, treat with a fast acting carbohydrate (see the section on Hypoglycaemia above). Wait 15 minutes and test your blood glucose again. Repeat the treatment if required, and follow up with a longer acting carbohydrate (fruit, bread, milk or a muesli bar).

Do not start driving again until at least 30 minutes after your hypo symptoms have gone and you feel well, and your blood glucose level is above 5mmol/L. Studies have shown that your brain function may take this long to fully recover.

For more information on diabetes and driving, visit ndss.com.au to view the Diabetes and Driving booklet.

You must advise the driver licencing authority in your state or territory if you take insulin. It is also important to be aware that conditions may be placed on your driver’s licence because of your diabetes. If you are a commercial driver, a diabetes specialist may need to make a recommendation on your fitness to drive each year. For more information, view the Austroads ‘Assessing Fitness to Drive’ document at austroads.com.au

Do I tell my insurer?

If you have life, personal or accident insurance, you need to tell your insurer that you have diabetes. If you have any problems and wish to discuss them with an independent person, you can call the insurance ombudsman on 1300 780 808.

Do I tell my employer?

Generally, you are only required to tell your employer that you have diabetes if it impacts on your ability to perform your job, for example if you operate heavy machinery or drive public transport. However it is helpful to tell your employer, and even your colleagues, about your diabetes in case of an emergency. You should also talk to your employer about needing regular meal breaks, taking insulin or testing blood glucose levels during work.

Where can I get more information?

Whether you have just been diagnosed or had diabetes for some time, it is important that you get the right support for managing your diabetes.

The NDSS provides education and support to help you manage your diabetes, and registration is free. The NDSS is an initiative of the Australian Government administered by Diabetes Australia.

The NDSS provides local education programs and support groups, diabetes-related products at subsidised prices, a diabetes helpline and fact sheets, and access to health professional advice and translation services. Visit the NDSS website ndss.com.au or call 1300 136 588 for information on diabetes programs in your local area and how to obtain NDSS products. For more information about the NDSS, ask your doctor for the NDSS and You fact sheet

Useful resources

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