What you need to know about type 2 diabetes
# Contents

A guide to type 2 diabetes .............................................. 3

Chapter one: What is diabetes? ........................................ 4
- What is diabetes? ...................................................... 5
- Type 2 diabetes .......................................................... 5
- Other types of diabetes .............................................. 6

Chapter two: Lifestyle ..................................................... 7
- Guidelines for healthy eating ...................................... 8
- Fast fat facts .............................................................. 9
- What about sugar? ................................................... 9
- To drink or not to drink? ............................................ 10
- Physical activity ....................................................... 12
- Weight management ............................................... 13
- Coping with diabetes ............................................... 15

Chapter three: Monitoring and care ................................ 16
- Blood glucose monitoring ......................................... 17
- Do you know what HbA1c is? ..................................... 18
- Medication and type 2 diabetes .................................. 18
- Insulin and type 2 diabetes ........................................ 20
- Other medicines ..................................................... 21
- Hypoglycaemia ....................................................... 22
- Hyperglycaemia and sick days .................................. 23
- Complications ......................................................... 25
- Foot care ................................................................. 26
- Treating to target ..................................................... 27
- Annual medical review ........................................... 30
- Behind the wheel ..................................................... 32
- Pregnancy ............................................................... 33
- Sleep apnoea ............................................................ 34
- Travelling and diabetes ............................................ 35
- You are part of a team ............................................... 36

Chapter four: Support ..................................................... 38
- Diabetes Queensland ................................................ 38
- National Diabetes Services Scheme (NDSS) ................. 39
- Medicare ................................................................. 40

Useful contacts ........................................................... 42

Notes ............................................................................ 44
A guide to type 2 diabetes

The little green book is designed to provide the latest and most useful information for people with type 2 diabetes, their family members and carers. Whether you have been recently diagnosed, or have been managing type 2 diabetes for some time, this book provides facts, figures, tips and useful advice to help you live a healthier life.

Managing type 2 diabetes is not easy and can become progressively harder to manage as the condition changes over time. When you have mastered the early challenges of type 2 diabetes, there is a great ongoing benefit in keeping up-to-date with the latest knowledge. This book is designed for that purpose.

The book is produced by Diabetes Queensland, an organisation dedicated to providing support and education to people with diabetes. It contains resources, information and advice on how to get the best out of your health care team as well as information on a variety of topics such as exercise, living and eating well, and what to do if it all goes wrong.

Coping with hypos, health emergencies, travel, driving, insulin (for those who need it), and making decisions on when and what to eat are all part of coping with type 2 diabetes.

The better informed you are, the better prepared you will be for making the right decisions. If you have had diabetes for some time this book may be a good refresher. It is also a resource you may like to share with family members and friends who want to know more.

Type 2 diabetes affects people in different ways. A management plan is very personal and every individual has their own response and different needs to be taken into account.

Diabetes Queensland is here to guide and support you, whether you are taking your first steps, or just the latest of many steps along the path to maximising your health potential.

If you have any queries or issues you would like to discuss after reading this book, call Diabetes Queensland’s Helpline on 1300 136 588. You can make this call from anywhere in Queensland for the cost of a local call.

If you have direct concerns about your treatment or health, contact your diabetes health care team to discuss the problem.
What is diabetes?

Since you’re reading this diabetes management guide, chances that you or a loved one has been diagnosed with type 2 diabetes.

When you were diagnosed with diabetes you may have thought you were simply experiencing the aches and pains of growing older, or maybe you didn’t notice any symptoms at all.

The good news is that diabetes can usually be effectively managed within your daily routine, with the right management path – this includes consultation with your diabetes healthcare professional team as well as managing the condition yourself. Your role in managing the condition is vital. Understanding the condition and what causes it is the first step in effective diabetes management.
What is diabetes?

Diabetes, also known as Diabetes Mellitus, occurs when the body is unable to make proper use of glucose, its main energy source. As a result the level of glucose in the blood becomes too high – hyperglycaemia. There are three main types of diabetes – type 1, type 2 and gestational diabetes.

When we eat, our bodies break the food and fluid down into smaller components – including glucose – which are then released into our blood stream. A hormone called ‘insulin’ which is produced by the pancreas helps move glucose from the blood stream to the body’s cells – it acts like a key, unlocking the cells to allow the glucose to enter. Once inside the cells, the glucose is used for energy.

However, when you have diabetes, this process becomes faulty. People with type 1 diabetes don’t produce insulin at all and need to receive insulin daily by injections or an insulin pump. Type 1 diabetes is an autoimmune disease. We still don’t know what causes the condition or how to prevent it. We do know, however, that it’s usually more common in people less than 30 years of age. People with type 2 diabetes still make their own insulin however the insulin they do make is not enough for their needs or does not work properly (insulin resistance). Over time, the majority of people with type 2 diabetes will make less and less of their own insulin. Due to this ongoing decline in insulin production type 2 diabetes is considered a progressive condition.

Type 2 diabetes

Type 2 diabetes is the most common form of diabetes, representing 85 to 90 per cent of all people with diabetes.

Type 2 diabetes can occur at any age but is most common among those who are overweight, carrying excess kilograms around their waist and are aged over 40 years. Some risk factors for type 2 diabetes can be corrected and minimised by changing your behaviour but others are outside of your control.

As type 2 diabetes is a progressive condition, a healthy diet and regular physical activity may be all that is required at first to manage rising blood glucose levels. However, overtime tablets and/or insulin may be needed to maintain glucose in your recommended range.

In both types of diabetes, the aim of treatment regimens is to keep blood glucose levels as close to the recommended range as possible.

It is also important to manage blood pressure and cholesterol. Some people may have had diabetes for months or even years before they find out and may find they have already developed complications.

Typical but often overlooked symptoms include:

- feeling tired
- passing urine more frequently
- blurred vision
- dry and itchy skin
- slow healing sores and wounds
- cramps/tingling/burning sensation in feet and/or legs
- frequent infections
- unquenchable thirst.

Risk factors which cannot be changed

- ethnicity
- family history of type 2 diabetes
- history of diabetes during pregnancy (Gestational Diabetes Mellitus – GDM)
- women with Polycystic Ovarian Syndrome
- increasing age – over 40 years.

Risk factors which can be changed

- lifestyle – level of physical activity
- lifestyle – type of food we eat
- high cholesterol
- smoking
- alcohol consumption
- weight.
Chapter one: What is diabetes?

Other types of diabetes

**Type 1 diabetes**
In type 1 diabetes, symptoms are often sudden and it is usually diagnosed fairly quickly. Symptoms can be similar for both type 1 and type 2 diabetes but in type 1, they usually develop more rapidly and there may be unexplained weight loss.

Type 1 diabetes must be treated with insulin. Healthy eating and regular physical activity are also an important aspect of diabetes management. While most people with diabetes have either type 1 or type 2, some may have a less common but equally serious form of the condition known as Latent Autoimmune Diabetes of the Adult (LADA).

**Latent Autoimmune Diabetes of Adulthood (LADA)**
LADA is also called ‘type 1 and a half diabetes’. LADA is a slowly developing form of type 1 diabetes but is sometimes initially mistaken for type 2. About 10 per cent of adults with diabetes may actually have LADA. These people are not usually overweight but they may have a family history of another autoimmune disease, such as coeliac disease.

Healthy eating and regular physical activity are important for people with LADA and they will need to progress onto insulin fairly quickly.

**Gestational Diabetes Mellitus**
Gestational diabetes occurs in five to ten per cent of Australian women during pregnancy and usually goes away once the baby is born. During pregnancy, the placenta produces many hormones which help the baby grow and develop. Some of these hormones block the action of the mother’s insulin. This is known as insulin resistance. To keep the blood glucose levels normal, mothers need to make two to three times the normal amount of their own insulin just to combat this insulin resistance. When the mother’s body (pancreas) is unable to produce this extra insulin to maintain the blood glucose levels, gestational diabetes develops. Once the baby is born and insulin requirements fall, blood glucose levels return to normal and for most women the diabetes disappears.

Women most at risk of developing gestational diabetes:
- are 30 years of age or older
- have a family history of type 2 diabetes
- have a history of previous gestational diabetes
- are overweight
- are of Aboriginal and Torres Strait Islander descent
- are from certain ethnic backgrounds such as: Indian, Polynesian, Melanesian, Middle Eastern, Chinese
- are women who have previously delivered large babies or had previous obstetric complications.

Most women diagnosed with gestational diabetes discover they have the condition through a routine blood test taken when they are between 24 and 28 weeks pregnant. However, women with risk factors may be tested earlier. Untreated gestational diabetes may lead to the baby growing larger than average and having to be delivered early. This is caused by high levels of glucose in the mother’s blood crossing the placenta.

We also know that women who have had diabetes during pregnancy have a higher risk of developing type 2 diabetes later in life. In fact, they have a 30 to 50 per cent chance of developing it within 10 to 15 years. It is recommended an oral glucose tolerance test be done 6–8 weeks following birth, then every 1 to 2 years thereafter.

As with type 1 and type 2 diabetes, gestational diabetes can be successfully managed with the right treatment. Expectant mothers and their partners can work with doctors, specialists, diabetes educators and dietitians to:
- develop and maintain a healthy eating pattern and plan
- develop and maintain a recommended physical activity plan
- assist and support with blood glucose monitoring and management
- assist and support with administration of insulin when and if required.

Risks to both mother and baby may be greatly reduced if the gestational diabetes is well managed.
Chapter two

Lifestyle

Lifestyle, it’s important for all of us. When it comes to diet and exercise, people with diabetes are no different from those who don’t have the condition.

Along with regular physical activity, a balanced diet helps manage blood glucose levels, reduces blood fats (cholesterol and triglycerides) and maintains a healthy weight range. Just because you have diabetes doesn’t mean you need to prepare separate or special meals, so relax and enjoy meal times.

This section contains general information on healthy eating. Your dietitian is the best person to advise you on what food, how much and how often you need to eat.
Guidelines for healthy eating

Make smart food choices. Choose a wide variety of foods from the five food groups: bread, cereals, rice, pasta and noodles; fruit; vegetables and legumes; dairy; meat and alternatives.

The Australian Guide to Healthy Eating is a useful tool for nutrition information. For a print copy, contact National Health and Medical Research Council on (02) 6269 1080.

Portion size matters. You need to match your energy intake (food and drink eaten) with your energy output (exercise/activity). Eating too much, even healthy foods, can lead to weight gain making it hard to manage your diabetes.

Eat regularly through the day. Start the day with breakfast and don’t skip meals. If you’re taking insulin or diabetes tablets you may need to eat snacks in between, but discuss this with your dietitian.

Eat more fibre. Fibre helps control blood glucose levels, cholesterol and weight. It also helps keep the digestive system healthy. Good sources of fibre can be found in wholegrain cereals, bread, fruit, vegetables and legumes.

Include carbohydrates at each meal. Carbohydrate foods are an important source of fuel for your body. When they are digested, they break down to form glucose in your blood. The best way to include carbohydrates in your diet is to spread them evenly over the day so that your energy levels remain steady and you don’t experience big spikes in your blood glucose.

Try to choose low GI carbohydrate foods. Glycaemic index (GI) measures how fast a carbohydrate food affects blood glucose levels. High GI foods can cause a rapid rise in blood glucose levels. Low GI foods cause a slower rise in blood glucose (if you watch your portion sizes). Be wary – some high fat foods – such as chocolate, ice cream and toasted muesli – have a low GI, but this doesn’t mean they’re healthy.

Limit the sometimes/extra foods. Foods like chocolate, pastries, pizza, biscuits, cakes and soft drinks contain carbohydrates, but are often high in energy and low in essential nutrients. Eat them only occasionally or in small amounts.

Healthy carbohydrate foods

Breads and cereals

All types of bread or flat bread and rolls – multigrain/wholegrain, wholemeal and white cereals such as cereal flakes, wheat flake biscuits, porridge/rolled oats, muesli (untoasted/toasted), flour (white and wholemeal).

Grains such as rice (Basmati, Moolgiri, Doongara), cous cous, polenta, barley, bulgur noodles and pasta.

Fruit

Most types including juice, fresh, dried and tinned fruit, e.g. apples, oranges, peaches, bananas, and melons.

Milk products or dairy alternatives

All types of milk (fresh, long-life and powdered), yoghurt (full cream, low fat), soy drinks (calcium fortified).

Vegetables

Starchy vegetables – sweet potato, potato, sweet corn, taro, yam and all legumes. (e.g. baked beans, chickpeas).

Limit ‘extra’ foods

Biscuits, pies, pastries, cakes, dairy desserts, custard, ice cream, lollies, chocolate, soft drink, flavoured waters, chips and some alcohol drinks.

Your dietitian is the best person to advise you on what food, how much and how often you need to eat.
Fast fat facts

Fats have the highest energy content. Eating too much of them may make you gain weight, which can play havoc with managing your blood glucose levels. That doesn’t mean you need to avoid them all together. Small amounts of healthier fats add flavour to food and some can reduce your risk of heart disease.

Include healthy poly or mono unsaturated fats. Healthy fats are found in small amounts of canola, olive, sunflower, peanut, soybean, grape seed and sesame oils, avocado, seeds, nuts and nut spreads. Oily fish (such as salmon and mackerel) has some of the best fat (omega-3). Aim to have at least two times a week.

Saturated fats and trans fats are not good for our heart. This is because they raise your LDL or ‘bad’ cholesterol levels. Saturated fat is found in animal products like fatty meat, milk, butter and cheese. Vegetable fats that are saturated include coconut products like copha, coconut milk and cream, and palm oil (often found in snack foods). Trans fats are found in some processed and convenience foods.

Tips for cooking with healthy fats

- Stir-fry meat and vegetables in a little canola oil (or oil spray) with garlic or chilli.
- Dress a salad or steamed vegetables with a little olive oil and lemon juice or vinegar.
- Sprinkle sesame seeds on steamed vegetables.
- Use linseed bread and spread with a little canola margarine.
- Snack on a handful of unsalted nuts or add some to a stir-fry or salad.
- Spread avocado on sandwiches and toast, or add to a salad.
- Do more dry roasting, grilling, microwaving and stir-frying in a non-stick pan.
- Avoid deep fried, battered and crumbed foods.

What about sugar?

Small amounts of sugar are okay but high-energy foods like chocolate, cakes and lollies should be limited. You can still enjoy your favourite recipes, however, by reducing sugar or replacing sugar with an alternative sweetener. There are two groups of alternative sweeteners – those which are energy free and have no effect on blood glucose and those which have energy but a slower effect on blood glucose.

For more information see Diabetes Australia fact sheet – healthy hints for modifying recipes.

IMPORTANT! To make sure you are meeting your individual needs, consult an accredited practising dietitian. Ask your doctor for a referral or contact the Dietitians’ Association of Australia on 1800 812 942 or go to www.daa.asn.au.
To drink or not to drink?

Most people with diabetes can enjoy a small amount of alcohol but you need to get the all-clear from your doctor. Alcohol is high in energy and can contribute to weight gain. It can also affect your blood fats, blood pressure, interact with some medications and make it more difficult to manage your diabetes. For those taking insulin or some types of diabetes medication, alcohol can cause your blood glucose level to drop, which can lead to a ‘hypo’ (see page 23). The key is to make sure you eat some carbohydrate foods when you drink alcohol. The guideline is the same for all Australians – consume no more than two standard drinks a day, with at least two alcohol-free days every week.

What is a standard drink?

Diabetes and drinking alcohol do not go well together but if you follow a few basic rules, there is no reason why you can’t enjoy a couple of drinks.

Remember – alcohol increases the risk of having low blood glucose (hypo) because it slows the release of glucose from the liver. The risk continues for some time after you stop drinking.

- Don’t drink on an empty stomach.
- Avoid drinking excessively – the more you drink the greater the hypo risk.
- Tell your friends you have diabetes and make sure they know what to do if you have a hypo.
- Wear diabetes ID.

Tips: The National Health and Medical Research Council recommends that healthy men and women consume no more than two standard drinks a day and include alcohol free days to reduce the risk of harm from alcohol-related disease or injury.

### Daily meal plan example

<table>
<thead>
<tr>
<th>Morning meal</th>
<th>Light meal</th>
<th>Main meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ¾ cup of high fibre breakfast cereal&lt;br&gt;• 1 cup of low fat milk</td>
<td>• 1 sandwich made with 2 slices of bread <em>(preferably wholegrain, wholemeal or high fibre white)</em>&lt;br&gt; OR&lt;br&gt;• 1 bread roll&lt;br&gt;• Thin spread margarine&lt;br&gt; OR&lt;br&gt;• 4 medium crackers <em>(preferably wholegrain or wholemeal)</em>&lt;br&gt;• Thin spread margarine&lt;br&gt; AND&lt;br&gt;• 40g of reduced fat cheese&lt;br&gt; OR&lt;br&gt;• 65–100g lean meat/tuna/salmon/egg&lt;br&gt; AND&lt;br&gt;• 1–2 cups of salad vegetables&lt;br&gt; AND&lt;br&gt;• 1 medium piece of fruit</td>
<td>• 1 bread roll or 2 slices of bread <em>(preferably wholegrain or wholemeal)</em>&lt;br&gt; OR&lt;br&gt;• 1 cup of cooked pasta or noodles&lt;br&gt; OR&lt;br&gt;• ²/₃ cup rice&lt;br&gt; OR&lt;br&gt;• 2 medium potatoes&lt;br&gt; OR&lt;br&gt;• 1 cup of sweet potato or corn&lt;br&gt; AND&lt;br&gt;• 65–100g lean meat, chicken <em>(no skin)</em>, tuna/salmon, 2 eggs <em>(or 100g tofu)</em>&lt;br&gt; AND&lt;br&gt;• 2–3 cups of salad/vegetables <em>(not potato or corn)</em>&lt;br&gt;</td>
</tr>
<tr>
<td>OR&lt;br&gt;• 2 slices of bread/toast <em>(preferably wholegrain, wholemeal or high fibre white)</em>&lt;br&gt;• Thin spread margarine, peanut butter/jam/ Vegemite®/grilled mushrooms/tomato/sardines&lt;br&gt; AND&lt;br&gt;• 1 medium piece of fruit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Drinks</th>
<th>Drinks</th>
<th>Drinks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Water, tea or coffee</td>
<td>• Water, tea or coffee</td>
<td>• Water, tea or coffee</td>
</tr>
</tbody>
</table>

**Dessert**<br>• 100g low fat yoghurt, 200g diet yoghurt or ½ cup low fat custard
Physical activity

Ready, set, go!
Apart from all those feel-good endorphins that swim around your body when you’re physically active, exercise can also lower your blood glucose levels. In fact, it helps to control your weight, reduce your blood pressure, keep your stress levels under control and lower your risk of heart disease.

Depending on the type, duration and intensity of your chosen activity, the effects of exercise may last for up to 48 hours afterwards – but don’t discount the incidental activity you do every day. (Cleaning and stair climbing count as physical activity!) Before you sign up for a program, ask your doctor the following questions:
- am I on any medication that will affect my ability to exercise safely?
- am I physically fit enough to exercise? This may include checking your heart and blood pressure as well as your feet to make sure there are no underlying problems.
- which activities do you recommend? What length and duration?
- under what circumstances should I stop exercising?
- should I carry glucose with me, wear some identification, or carry a mobile phone?
- should I exercise with someone else? Are there any groups that you could recommend?
- what about my feet? How do I make sure I look after my feet properly when exercising and what types of footwear do I need? (You may need help from a podiatrist for this – ask your doctor for a referral).

Technology and modern living have reduced the amount of daily activity we do, so it’s important to incorporate as much incidental activity in our daily routines as possible. This is as easy as leaving the remote control on top of the TV so you have to get up and move around to adjust the volume or channel. The National Physical Activity Guidelines recommend you view movement as an opportunity rather than an inconvenience and spend at least 30 minutes on most, if not all, days doing moderate physical activity.

Types of exercise
Once you’ve got the all-clear from your doctor, what kind of exercise should you do? Research shows some resistance training should be included in your physical activity regime to keep your bones healthy and strong. Lifting cans of food or bottles of water, sitting and standing from a chair, or doing push-ups against a wall are all types of resistance training.

Weight training is another form of resistance training. If you’re using weights, they should be easy to lift the first two or three times but difficult on the last few repetitions (in a set of eight to 10). If you’re unsure how to do this safely, consult an exercise physiologist.

Listen to your body
When you exercise, your body takes glucose from the blood and uses it to keep the muscles supplied with enough energy. After you have finished exercising, your muscles fully ‘restock’ their energy supplies, drawing on glucose from the blood. If you take insulin or some types of tablets for diabetes and don’t eat enough carbohydrate before, during and/or after the activity, your blood glucose levels will continue to drop and this can trigger a hypo (see page 23). If you take insulin and experience ‘hypos’ on the days you exercise, ask your diabetes health professional how to best manage this. On the other hand, some people with diabetes notice their blood glucose levels rise after exercise. This could be because of the amount, type or duration of activity, the level of your blood glucose when you started exercising, your food intake or the kind of treatment you’re using. Seek advice from your doctor on ways to prevent this from occurring.
Weight management

Following a long-term, balanced eating plan and adding regular physical activity into your life are great ways to manage your weight. It is important to get help from your diabetes health care team to work out the combination of treatment, eating plan and activity that best suits your needs and lifestyle.

Managing your weight

It’s not just the scales that reflect your weight – it is also the size of your waist. Health professionals recommend that men have a girth below 94cm and women below 80cm – although different ethnic groups have different recommended measurements.

You can work out your true waist measurement by finding the halfway point between your lowest rib and the top of your hip. If you find it difficult to measure yourself, ask for help.

People with a high waist measurement are more likely to have high blood pressure, high cholesterol, sleep apnoea and dementia, as well as some cancers.

Being overweight also puts pressure on joints – such as your hips, knees and back, which makes physical activity more difficult.

Body mass index (BMI)

The best way to determine whether you are in a healthy weight range is to measure your BMI. This is calculated by dividing your body weight in kilograms by your height in metres squared.

<table>
<thead>
<tr>
<th>Body Mass Index (BMI) (kg/m²)</th>
<th>Weight status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.50</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.50 – 24.99</td>
<td>Normal</td>
</tr>
<tr>
<td>25 – 29.99</td>
<td>Overweight</td>
</tr>
<tr>
<td>30</td>
<td>Obese</td>
</tr>
</tbody>
</table>

No quick fix to losing weight

If you are looking to lose weight, don’t rush to follow the latest fad diet. The best way to improve your health is to make small, sustainable changes to your eating behaviour and physical activity.

If you are thinking about using meal replacement programs, talk to your doctor first. They are generally low-energy, high-protein and low-carbohydrate plans that can put stress on your body if not managed with medical supervision.

Your body is already working hard to control your blood glucose, blood pressure and cholesterol so it pays to seek the right advice.

There are potential side-effects to using meal replacements, such as hypoglycaemia, and the medications you take may need adjustment.
Keep it real

People often have unrealistic expectations of how much weight they are going to lose and how quickly. This pressure, combined with unrealistic changes to your lifestyle, can make long-term weight loss difficult. Losing five to 10 per cent of your bodyweight a year until you reach a healthy target weight is the ideal way to shed those excess kilograms, and can improve your health and reduce your medication.

Try having regular meals throughout the day. Remember that your energy in (kilojoules consumed) needs to be less than your energy expended (body function and physical activity) in order to lose weight.

Portion sizes can make a big difference. Sometimes people eat healthy foods that are low in energy, fat, salt and sugar, but eat too much of them. Cut back on your portions and increase the amount of incidental activity and exercise you do. Before reaching for that snack, make sure you’ve met your daily requirements of five portions of vegetables, two portions of fruit and two serves of dairy. Watch out for those ‘extras’ like alcohol.

The Australian Guide to Healthy Eating and the Diabetes Australia fact sheets Do you need to lose some weight? and the Healthy Eating Guide are useful for more tips.

Underweight

Being underweight can make it difficult to stay healthy. Losing weight when you are not trying to can be a warning that something is seriously wrong. Seek help from your doctor or health professional as early as possible. You may be referred to a dietitian who will check your medical history, medication and blood tests, and provide an individualised treatment plan to help you meet your nutritional needs. This often includes increasing the protein, fat and energy content of your diet while managing the carbohydrate (starch and sugar) component to maintain healthy blood glucose levels. High blood glucose levels can make it difficult for you to gain weight. In addition to modifying your food intake, your doctor may recommend a temporary or more permanent change to your diabetes medication.

Dietary supplements

People who are underweight sometimes take supplements to improve their nutritional intake, but you need to discuss the suitability of these products with your dietitian or doctor.

Practical tips for gaining weight

- Eat small, frequent meals and snacks.
- Add more mono or polyunsaturated margarine and oil to your food.
- Add skim milk powder to drinks, soups and stews.
- Add grated cheese to cooked foods.
- Snack on small serves of crackers, cold meat, nuts and dried fruit.

Note: Increasing the carbohydrate content of your diet may cause your blood glucose levels to rise. Ask your dietitian about the quantity of fruit and other carbohydrates you should include to make sure your blood glucose levels remain in the target range. Regardless of whether you’re overweight or underweight, a referral to a dietitian is worthwhile because there could be other factors at play, including poorly controlled diabetes, high cholesterol or high blood pressure.
Coping with diabetes

Anyone diagnosed with a chronic condition experiences a range of emotions. Often it means making major changes to your lifestyle and behaviour and this can be challenging. But you’re not alone! Apart from your diabetes health team, you also have family and friends to help you learn to cope. Coping, by definition, means ‘managing a difficult problem or situation successfully’. To cope with your diabetes, you need to develop a range of tools and strategies.

Communicate
You may feel angry or scared. You may be confused, or in a state of denial. These feelings are all part of the emotional processing and cognitive understanding of diabetes. Talk to family and friends and let them know how you are feeling. Your feelings may surface when adjustments are necessary so express these emotions when they arise. Relationships with your family, friends, colleagues or classmates can become strained because other people have a lack of knowledge and understanding of diabetes. Explain your diabetes to people who care about you, and tell them about the changes you need to implement to improve your health. Encourage them to help you by making them part of your support network.

Ask for help
Go to health professionals – such as your counsellor, doctor, diabetes educator, or community nurse. If you feel self-conscious or embarrassed talking about your diabetes, find out how you can connect with others who also have diabetes because they will understand how you are feeling. (See page 51 for information about diabetes support groups in Queensland.)

Asking for help enables you to explore and acknowledge the meaning of having diabetes and assists you in finding the motivation to make any necessary changes.

Coping with stress
The daily management of diabetes in your everyday life can be very stressful. You may find that your stress levels increase your blood glucose levels – you may feel dizzy, suffer headaches or experience fatigue. The physical symptoms of both stress and diabetes can be similar, so it’s important to develop strategies to relieve stress. Obviously, it’s best to eliminate the cause of your stress, but this is often easier said than done. Look for the things that trigger emotional upset and develop a coping tool that can be used when you notice your stress levels starting to rise. For example, when you notice yourself beginning to feel agitated, go for a walk, listen to relaxing music, phone a friend, do some deep slow breathing, or watch a funny video.

Try to find what works for you
Self management is the key to coping with diabetes. You have to take ownership of your personal care. Professional health carers can help you find the coping skills you need because different strategies work for different people. Some like to get involved in volunteer work because helping others is a rewarding way to help yourself. Others take up a new hobby or join an arts and crafts group. Contact your local diabetes support group for further information.
Chapter three
Monitoring and care
Blood glucose monitoring

As you develop strategies to help you cope with your diabetes, you will find that monitoring your own blood glucose levels is a valuable management tool.

Self monitoring involves a blood glucose meter and matching test strips, and a lancet.

Your diabetes educator will help you learn how to check your blood glucose levels at home and how to interpret the results. They will look at your general health, wellbeing, activity level and medication regimen to recommend how often you may need to monitor your blood glucose levels. Together with your doctor, diabetes educator and your health care team, you will determine an appropriate management plan including blood glucose targets you wish to achieve.

You may need to check your blood glucose levels more often if you are sick, change your level of physical activity or medication, or are having symptoms of either high or low blood glucose levels. Measuring and recording your blood glucose levels is important because it reflects how your body is responding to changes in eating patterns, physical activity, medicines and other factors. Importantly, a change in the pattern can alert you and your health care team to a need to alter your diabetes management plan.

Regular monitoring and review of your blood glucose levels will assist you to:
- become more confident managing your diabetes
- better understand the relationship between your blood glucose levels and the amount of exercise you do, your diet and other lifestyle factors such as travel, stress, illness and medication
- understand how your lifestyle choices and medication can make a positive difference
- identify the highs (hyperglycaemia) and lows (hypoglycaemia) and help you make important decisions, such as treating a hypo or seeking medical advice if you are sick
- know when it is appropriate to involve your diabetes health care team for advice regarding medication or insulin adjustments, meal, snack and exercise planning.
Do you know what HbA1c is?

The HbA1c blood test is reported as a percentage and in mmol/mol. It reflects, on average, how much glucose has been in your blood stream over the previous 10–12 weeks. The HbA1c does not replace the blood glucose checks you do at home but provides extra important information to help manage your diabetes.

Most people with diabetes are recommended to strive for a target HbA1c of 53 mmol/mol (7 per cent) or less. However, this may vary according to individual circumstances and all targets should be discussed with your health practitioner.

Research has shown that complications associated with diabetes – loss of vision, stroke, heart attack, kidney failure and limb amputation – may be decreased by 20–40 per cent if an HbA1c of 53 mmol/mol (7 per cent) or lower is achieved and maintained.

Your GP will request this test as a minimum every 12 months.

Medication and type 2 diabetes

People with type 2 diabetes are often given tablets and/or insulin injections to assist with diabetes management. Medications need to be taken in combination with a healthy diet and regular activity plan.

Medications including insulin are not simply substitutes but part of the larger management package of diabetes treatment. You may also be given tablets to help lower your cholesterol and blood pressure, and most importantly to assist in preventing future complications such as kidney or heart disease.

Your doctor may prescribe one medication to begin with and later a second or even third medication to assist in maintaining your blood glucose levels within the recommended target ranges.

There is a vast number of blood glucose lowering medications on the market. To know which class of medication you take, always read the generic name on the packaging.
# Medications for type 2 diabetes

<table>
<thead>
<tr>
<th>Class</th>
<th>Brand</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biguanides</strong></td>
<td>Diabex XR, Diaformin XR, Formet, Glucophage, Metex XR, GenRX Metformin, Diabex</td>
<td>Help lower blood glucose levels by: Reducing the amount of stored glucose released by the liver. Slowing the absorption of glucose from the small intestine. Helping the body become more sensitive to insulin.</td>
</tr>
<tr>
<td><strong>Sulphonylureas</strong></td>
<td>Diamicron, Diamicron MR, Genrx Gliclazide, Glyade, Mellihexal, Daonil, Glimel, Minidiab, Amaryl, Glimepirdie Sandoz</td>
<td>Help lower blood glucose levels by: Stimulating the pancreas to release more insulin. People taking this medication may experience hypo's (low blood glucose levels) so it’s important to eat regularly throughout the day.</td>
</tr>
<tr>
<td><strong>Gliptins or Dipeptidyl Peptidase 4 (DPP4) Inhibitors</strong></td>
<td>Januvia, Galvus, Onglyza, Trajenta</td>
<td>Help lower blood glucose levels by: Prolonging the action of hormones in the gut which stimulate insulin release by the pancreas and decrease the release of stored glucose from the liver.</td>
</tr>
<tr>
<td><strong>Glitazones or Thiazolidinediones (TZDs)</strong></td>
<td>Glucobay®</td>
<td>Help lower blood glucose levels by: Slowing down the digestion and absorption of certain carbohydrates in the gut.</td>
</tr>
<tr>
<td><strong>Alpha-Glucosidase Inhibitors</strong></td>
<td>Avandia®, Actos®</td>
<td>Help lower blood glucose levels by: Making your own insulin work more effectively, especially in the body’s muscles and fat.</td>
</tr>
<tr>
<td><strong>Incretin Mimetics or GLP1</strong></td>
<td>Byetta®, Victoza</td>
<td>Help lower blood glucose levels by: Stimulating the pancreas to release insulin and slowing down absorption of food promoting a feeling of fullness and reducing appetite.</td>
</tr>
<tr>
<td>SGLT2 Inhibitor</td>
<td>Forxiga</td>
<td>Help lower blood glucose levels by: Removing the excess glucose from the body in the urine.</td>
</tr>
<tr>
<td>Combination medications</td>
<td>Glucovance, Avandamet, Janumet, Galvumet</td>
<td>As an alternative to taking two separate glucose lowering medications, your doctor may offer you a combination medication.</td>
</tr>
</tbody>
</table>

*Information correct at time of publication*
Insulin and type 2 diabetes

Insulin
Insulin injections are required when the body produces little or no insulin, as with type 1 diabetes. People with type 2 diabetes may also eventually require insulin injections as the condition progresses over time. Insulin injections are a safe and effective way of managing blood glucose levels when the body does not make enough of its own insulin.

Why must insulin be injected?
Insulin is a protein and cannot be given as an oral tablet because the stomach would digest it, just as it digests the protein in the food we consume.

I’m frightened!
Starting insulin can be a daunting experience although the various devices available today make injecting a lot simpler. Some people use syringes, but most use newer devices which look like pens. Many people find these easier and more convenient than syringes. Needles for both syringes and pens are available in different lengths and should be changed with each injection. Syringes and needles are free for people registered with the National Diabetes Services Scheme (NDSS). Your health care team will assist you to adjust to this new routine and teach you about the use and care of your diabetes management devices.

Are there different types of insulin?
There are a number of different types of insulin including rapid, intermediate, long acting and mixed. Some insulins are clear in appearance and others are cloudy. You may require a different type of insulin.

Where is insulin injected?
Insulin is injected into the fatty tissue known as the subcutaneous layer. You do not inject it into muscle or directly into the blood. How insulin is absorbed depends on where you inject. For instance, the tummy (abdomen) is usually recommended because it absorbs insulin evenly. Each injection needs to be done in a slightly different area of the tummy each time to ensure the insulin is absorbed properly and prevent lumps from developing in your skin.

What is the right dose of insulin?
When you start insulin you may need your dose adjusted a number of times at the beginning to get the best result. Your insulin dose may also change over time. To find the right dose for you, you will need to work closely with your doctor and diabetes educator, monitor your blood glucose regularly and keep records to discuss at appointments.

Tips on storing insulin
Keep unopened insulin in the fridge but don’t allow it to freeze. Once open, it can be kept at room temperature (less than 28 degrees), out of direct sunlight, for up to 28 days. It can be safely carried in your handbag or pocket.

Don’t use insulin if:
• clear insulin has turned yellow or cloudy
• the expiry date has been reached
• the insulin has been frozen or exposed to high temperatures
• lumps or flakes can be seen in the insulin
• the vial has been open for longer than 28 days.

Dispose of used needles and syringes carefully
Used syringes, pen needles and lancets must be disposed of in an Australian Safety Standards-approved sharps container which is puncture-proof and has a secure lid. These are usually yellow in colour and are available through pharmacies and Diabetes Queensland. Procedures to dispose of sharps containers vary from council to council and state to state. Contact your state or territory diabetes organisation on 1300 136 588, your state Department of Health or your local council for information.
Other medicines

Complementary Medicines

Complementary medicines complement rather than replace conventional medications.

These medications include herbal, traditional, natural and alternative preparations. They must meet Australian Government standards for quality and safety assurance, but there are no standards required for effectiveness. Just as conventional medicines have risks and side effects, so do complementary medicines. Some complementary medicines have been shown to improve health, however many have not been shown to be effective for people with diabetes. Some complementary medicines may interact with each other or with prescription and over-the-counter medicines.

Over-the-counter Medicines

Over-the-counter medicines are those that you can buy from your local pharmacy or supermarket without a prescription. They include complementary medicines.

In order to minimise risks when using either over-the-counter or complementary medicines, it is important to:

- Let your doctor and diabetes health care team know the different types of medications you may be taking.
- To not suddenly cease taking your prescription medications without consultation with your health practitioner.
- Consider the costs involved.
- Remember, some medications may interact negatively with prescription medications.
- Bear in mind, non-prescription medications may also have risks and side effects just as prescription medications do.

Helpful hints

- Know the name of your medications – make a list and keep it in your wallet or bag.
- Know the dose of your medications.
- Understand how your medications work.
- Know the correct time to take your medication.
- Know some common side effects your medications may cause.
Hypoglycaemia

Hypoglycaemia, commonly referred to as a hypo, occurs when blood glucose levels drop too low (normally below 4 mmol/L). Hypoglycaemia usually only occurs in people who take insulin or particular types of blood glucose-lowering tablets. It is important to find out if you are at risk. Ask your doctor or diabetes educator. It is important that a hypo be treated promptly to prevent blood glucose levels from falling even lower.

Causes of hypoglycaemia:
- delaying, missing or not having enough carbohydrate in a meal
- unplanned physical activity or more strenuous exercise than usual
- drinking alcohol
- too much insulin or too many diabetes tablets.

Symptoms of hypoglycaemia:
- shaking and/or sweating
- dizziness and/or headache and/or light-headedness
- tingling in lips, tongue and/or fingers
- palpitations
- ravenous hunger and/or butterflies in your stomach
- lack of concentration and/or mood changes and/or unusual behaviour.

If you feel any of these symptoms you should test your blood glucose level immediately. If you are unable to test you should treat the symptoms as a hypo regardless. Your safety is paramount.

How do I treat a hypo?

Treat a hypo immediately. Complete the following steps:

Step 1
Have ONE serve (about 15g) of quick acting carbohydrate IMMEDIATELY, such as:
- 5–8 Jelly beans
- glucose tablets – equivalent to 15g
- 150–200ml of regular soft drink (1/3 of a regular can)
- 150ml of fruit juice
- 3 teaspoons of honey, jam or sugar.

Note: For those taking Glucobay® (Acarbose) in addition to other glucose lowering medication, hypoglycaemia must be treated with glucose (dextrose or glucose tablets).
If you can, re-test your blood glucose levels after about 15 minutes to make sure they have risen above 4 mmol/L.

If the symptoms don’t go away or the test reveals you’re still below 4 mmol/L, then REPEAT Step 1.

Important!

If after repeating Step 1, your blood glucose level still does not rise above 4 mmol/L, get help immediately. Your blood glucose level could continue to drop and you could become unconscious.

Step 2
If your next meal is more than 20 minutes away, eat some longer-acting carbohydrate, such as:
- 1 slice of multigrain/wholegrain bread
- 250ml glass of low fat milk
- 1 piece of fruit (ie. apple)
- 200g tub of natural low fat yoghurt
- 6 small dry biscuits.

When you are feeling better try to think of why your blood glucose went too low and what you may be able to do to prevent it happening again. Make a note in your blood glucose record book of any hypos and discuss them with your doctor or diabetes educator at your next visit.

Tell your family, friends and colleagues about hypos – how to recognise the symptoms and how to treat them. Make sure you also tell them:

- if I become unconscious, drowsy or unable to swallow, call an ambulance immediately
- call 000 and state that it is a ‘diabetic emergency’
- do not feed me, instead place me on my side making sure my airway is clear, and wait with me until the ambulance arrives.

Hyperglycaemia and sick days

Hyperglycaemia and sick days

While hypos are caused by your blood glucose levels dropping too low, hyperglycaemia occurs when the levels are too high (usually above 15 mmol/L).

Causes of hyperglycaemia:
- not enough insulin or diabetes tablets
- eating too much carbohydrate food
- sickness or infection
- stress
- reduced physical activity.

Symptoms of hyperglycaemia:
- excessive thirst
- lethargy
- frequent urination
- blurred vision
- lack of concentration
- change in behaviour (usually irritable).

If your blood glucose levels are usually well managed, an occasional high reading should not be of concern. However, if your readings continue to rise, or are persistently higher than usual, it is normally time to contact either your doctor or diabetes educator. It may be necessary to adjust and review your usual treatment regime. Illness, infection and stress usually elevate blood glucose levels, making it essential that action be taken at the first sign of rising blood glucose levels with illness.
Chapter three: Monitoring and care

What if I become sick?

- Monitor blood glucose levels at least every two to four hours.
- Stay well hydrated, sipping extra half cups of calorie-free fluid every hour if possible.
- Continue to take your diabetes medications and/or insulin if you can eat and drink normally, however you may need adjustments to your usual medication/insulin regimen, so seek advice and review if your blood glucose levels continue to be out of your usual expected target ranges.
- When unwell but still taking diabetes medications and/or insulin, it is important to avoid hypoglycaemia. If you are unable to eat, then drinking carbohydrate-containing fluids will assist in providing the essential energy to avoid hypos.

When do I need to call my doctor?

There are certain times during illness when you will need the advice of your diabetes health professionals. Contact your doctor or diabetes educator if:

- you are not able to eat your regular diet – as you will most likely still need to keep taking your diabetes medications and/or insulin so will need advice about what to do
- you’re not well enough to follow the important steps outlined previously
- your blood glucose level is consistently above 15 mmol/L for more than 12 hours
- you experience vomiting or diarrhoea for more than 12 hours
- you continue to feel unwell or become drowsy.

For more advice on how to treat hypoglycaemia or hyperglycaemia speak to your diabetes health care professional.

Tell someone: If you live alone, let someone know that you’re unwell so they can check on you. If you’re not well enough to follow the steps above, ask someone to help or to call your doctor.

Complications

Over time, persistent high blood glucose levels can cause serious damage to the organs of the body. The good news, however, is that most of this damage can be prevented or at least delayed.

The most common complications are:

Damage to the large blood vessels

Cardiovascular disease (blood vessel disease, heart attack and stroke) is the leading cause of death in Australia, and diabetes increases the risk of developing this condition. People with diabetes often have high cholesterol and blood pressure. When these are combined with raised blood glucose levels, the risk of cardiovascular disease increases. Smoking, having a family history of cardiovascular disease and being inactive also increase risk.
Damage to the small blood vessels
Damage to the retina (retinopathy) often occurs silently, with very little change to vision until it is well advanced. If left unchecked, this can lead to blindness. Regular eye examinations conducted by a qualified optometrist or ophthalmologist are essential in the ongoing management of diabetes. High blood glucose levels may also cause significant damage to the kidneys over time, especially if you have high blood pressure.

Damage to the nerves
Diabetes-related nerve damage can be particularly difficult to manage and includes; pain, loss of feeling and altered sensation in the hands and feet (peripheral neuropathy), gastro-intestinal problems and erectile dysfunction.

How can I reduce my risk of developing complications?
- Maintain blood glucose levels, cholesterol and blood pressure within healthy target ranges.
- Monitor blood glucose levels regularly as recommended and alert your doctor or diabetes educator of any persistent abnormal changes.
- Attend regular ongoing reviews and specific pathology testing with your health practitioner.
- Take all medications as prescribed.
- Don’t smoke. Smoking increases the risk of developing serious health problems associated with diabetes. If you need help to quit smoking, call the QUITLINE on 137 848.
- Be physically active by doing at least 30 minutes of moderate physical activity on most, if not all, days of the week.
- Follow a healthy eating plan (consult a dietitian for advice on food choices and portion sizes, especially if you change your medication).
- Limit your alcohol intake – no more than two standard drinks a day for men and women and have at least two alcohol-free days a week.

- Lose excess weight (losing even a small amount of weight can improve your health).
- Look after your feet – see a podiatrist if you need help in choosing footwear which will protect your feet.
- Discuss any other issues with your GP or diabetes educator.

Teeth and gums
Another health concern for people with diabetes is poor dental health, including increased tooth decay and gum infections caused by persistent high blood glucose levels. These infections may cause swollen and bleeding gums. As another important member of your diabetes health care team, it is essential your dentist knows you have diabetes – this will ensure your visits will be prioritised and regular. Most importantly, you will receive vital education on the care of your teeth and gums to assist in preventing further problems.

Regularly drinking water rather than sweetened beverages will also ensure your teeth and gums stay healthy and well hydrated. Sugarless gum is another alternative as this chewing increases saliva production which assists in restoring the natural pH of the mouth, neutralises acids and helps to wash away any food lodged in teeth and gums.

**Remember:** Most complications associated with diabetes can be prevented or delayed. Your doctor and health care team can help you manage your diabetes and assist you with strategies to help you live a long and healthy life with diabetes.
Foot care

Let your feet do the talking
People with persistently high blood glucose levels may experience damage to their blood vessels and nerves, including those in their feet. Nerve damage may manifest as a burning pain or loss of feeling (diabetic neuropathy) while damage to blood vessels may mean your feet are not getting enough blood supply (peripheral vascular disease). This can delay healing. Most importantly, if you have lost feeling in your feet, it can be difficult to identify if there is a problem. Untreated injuries may develop into infections and ulcers that may require hospitalisation and in serious cases may end in amputation of the affected limb.

How can I avoid problems with my feet?
• Monitor and record blood glucose levels regularly in order to identify levels not within recommended targets.
• Do not smoke.
• Maintain a healthy diet and regular physical activity.
• Wash your feet every day with lukewarm water and mild soap.
• Dry your feet well, especially between the toes (use a soft towel and pat gently).
• Avoid dry, cracked skin by applying a moisturiser, especially on the heels but not between the toes. If the skin is cracked, talk to your doctor or podiatrist about how to treat it.
• Check your feet every day and call your doctor/podiatrist at the very first sign of redness, swelling, lasting pain, numbness or tingling.
• Use a mirror to inspect your feet if you can’t easily reach or see them.
• Don’t treat calluses, corns or bunions without talking to your doctor or podiatrist first, and do not use corn pads or ointments.
• Cut toenails straight across to avoid ingrown toenails, and use a nail file to remove any sharp edges after cutting. If you cannot properly see or reach your feet to cut your toenails, have someone assist you.
• Keep your feet away from direct heat such as heaters, hot water bottles and electric blankets.
• Do not walk barefoot.
• Always cover any small cuts with a mild antiseptic and dressing.
• Have your feet checked at least twice a year by a podiatrist, doctor, or diabetes educator, and ensure you make them aware of any existing issues with your feet.

Tips for choosing shoes and socks
• Shop for new shoes at the end of the day when your feet are a little swollen.
• Look for lace up or buckled shoes which are supportive and have a non-slip sole.
• Break in new shoes slowly by wearing them for no more than an hour a day for several days.
• Change your socks and shoes every day. Look inside the shoe, tap it upside down and put your hand in to ensure there are no loose stones or shoe tacks and check them regularly for wear and tear.
• Wear well-padded woollen or cotton socks or stockings that are slightly longer than your longest toe.
• Avoid wearing shoes without socks, sandals or other open-toed shoes.
• Avoid high-heeled shoes and shoes with pointed toes where your feet may be squashed together – this will create pressure points.
• Avoid wearing stretch socks, nylon socks, socks with an elastic band or garter at the top, or socks with inside seams.
• Avoid uncomfortable or tight shoes which put pressure on or create blisters. Consider being fitted for a custom-moulded shoe.
• Speak to a foot specialist prior to purchasing specific shoes. You need to ensure your investment is appropriate for caring for your feet in the long term.
Treating to target

People with diabetes need to be actively involved in their own care to determine whether their current treatment plan is working.

The Royal Australian College of General Practice recommends you are aware and have an understanding of the crucial tests which help in the management of your condition.

1. HbA1c test
This is a blood test which measures the amount of glucose carried in the blood by the red blood cells. It is usually performed by a pathology laboratory and provides you with an understanding of your average blood glucose level over the previous two to three months. It is recommended this test be conducted every three, six or twelve months. As a general rule, your HbA1c value should be less than 53 mmol/mol (7 per cent). The aim is to maintain a value under 53 mmol/mol (7 per cent) without increasing the risk of hypoglycaemia. If your HbA1c is elevated, your diabetes health care team will discuss measures to assist in decreasing this value such as weight loss, a physical activity plan and medications.

2. Blood pressure
Maintaining blood pressure within a healthy range and treating elevated blood glucose levels reduces the risk of blood vessel damage. High blood pressure is considered a silent killer and checks with your health professional should be conducted at least twice a year. Generally, your blood pressure should be less than 130/80mmHg. Regular physical activity, weight loss, quitting smoking and some medications may help lower your blood pressure, and your health care team will advise and assist you in maintaining your blood pressure within a healthy range.

3. Urinary microalbumin
This test detects any evidence of kidney disease and it is recommended your health professional conducts it at least once a year. Maintaining the HbA1c and your blood pressure within expected healthy ranges is the best way to prevent urinary microalbumin. Your doctor may prescribe medication to treat this condition if necessary.

4. Lipids (total cholesterol)
It is recommended your cholesterol be checked at least yearly because high cholesterol levels and diabetes place you at significant risk of heart attack or stroke. There are two types of cholesterol: HDL (the good cholesterol that protects against heart disease) and LDL (the bad cholesterol that can damage your heart). The table (see page 40) indicates recommended average targets for people with diabetes. These targets may be achieved with regular physical activity, weight loss, a healthy diet low in saturated fats and if deemed necessary by your doctor, cholesterol lowering medication.

5. Eye exam
People with diabetes have an increased risk of developing eye disease including cataracts, glaucoma, diabetic retinopathy and macular oedema. If left untreated, these conditions may lead to poor vision and blindness. It is important to note that vision loss from diabetes can be prevented by having regular eye examinations, which ensure early intervention and treatment. If your doctor finds signs of eye disease – laser eye surgery, contact lenses, glasses and medications may be recommended. Keeping your HbA1c level on target, controlling blood pressure and quitting smoking will all help prevent vision loss.
Chapter three: Monitoring and care

6. Foot exam
Damage to the nerves and blood supply of the feet caused by diabetes can put your feet at risk of further injury and damage, impaired sensation (neuropathy) and impaired circulation. It is recommended your feet be checked regularly, at least every six months by either a podiatrist, doctor or diabetes educator.

Points to remember when it comes to your feet

- Low-risk feet can become high-risk feet without symptoms.
- Knowing the risks and taking care of your feet can prevent serious complications.
- It is essential to have regular foot checks, at least one every six months.
### My annual cycle of care

<table>
<thead>
<tr>
<th>What needs to be done?</th>
<th>Goal</th>
<th>Done?</th>
<th>Who checks it?</th>
<th>How often?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>My goal weight is ____kg</td>
<td>☐ ☐</td>
<td>GP, Endocrinologist, Diabetes Educator or Practice Nurse</td>
<td>At least every 6 months</td>
</tr>
<tr>
<td>Waist circumference</td>
<td>Men less than 94cm Women less than 80cm</td>
<td>☐ ☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Mass Index (BMI)</td>
<td>Less than 25kg/m² where appropriate</td>
<td>☐ ☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>Equal to or less than 130/80mmHg</td>
<td>☐ ☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feet examination</td>
<td>Feet check at least every 6 months</td>
<td>☐ ☐</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Tests for:**

<table>
<thead>
<tr>
<th>What needs to be done?</th>
<th>Goal</th>
<th>Done?</th>
<th>Who checks it?</th>
<th>How often?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total and HDL Cholesterol</td>
<td>Total cholesterol less than 4 mmol/L LDL less than 2 mmol/L; HDL cholesterol more than 1 mmol/L</td>
<td>☐</td>
<td>GP or Endocrinologist</td>
<td>At least every 12 months</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>Triglycerides less than 2 mmol/L</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microalbuminuria</td>
<td>Microalbuminuria checked at least every year</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HbA1c</td>
<td>Equal to or less than 53 mmol/mol (7%)</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review diabetes self-management plan</td>
<td>Review self-management plan at least every year</td>
<td>☐</td>
<td>Diabetes Educator, GP, Endocrinologist, or Practice Nurse</td>
<td>At least every 12 months</td>
</tr>
<tr>
<td>Physical activity</td>
<td>At least 30 minutes walking (or equivalent), 5 or more days per week</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking status</td>
<td>Do not smoke</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review medications</td>
<td>Review medications at least every year</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review diet and healthy eating for diabetes</td>
<td>Review your diet and healthy eating plan at least every year</td>
<td>☐</td>
<td>Dietitian, Diabetes Educator or GP</td>
<td>At least every 12 months</td>
</tr>
<tr>
<td>Eye examination</td>
<td>A complete eye examination at least every 2 years</td>
<td>☐</td>
<td>Optometrist / Ophthalmologist</td>
<td>At least every 2 years</td>
</tr>
</tbody>
</table>

**Important:** These are general recommendations. It is important to discuss your individual goals and the number of times these checks should be done with your health care team.
Chapter three: Monitoring and care

Annual medical review

People with diabetes need a comprehensive annual medical review as well as quarterly check-ups. This is an opportunity to have a full system review – checking for damage to the blood vessels, kidneys, eyes, nerves and feet. It involves assessing your goals and management plan to ensure you are doing everything possible to manage your diabetes successfully. This is also the time to look at your eating plan, lifestyle, home glucose monitoring and treatment.

This is called your annual cycle of care review.

The review includes:

- a full physical assessment of your:
  1. cardiovascular system (blood pressure, pulse, heart rate, etc)
  2. peripheral nervous system (checking for damage to the blood vessels and nerves in the feet)
  3. eyes
  4. waist circumference
  5. weight (for children and adolescents)
- immunisations – including influenza once a year, pneumococcal and tetanus booster at age 50 (unless booster has been given within 10 years)
- blood tests for blood fats (lipids) – triglycerides; good (HDL), bad (LDL) and total cholesterol
- kidney function tests – microalbuminuria and plasma creatinine.

**Note:** Some of these tests may need to be done more often if you are experiencing problems.

Your annual check-up may also lead to referrals to:

- ophthalmologist/optometrist – every two years if you do not have any damage to the retina, or more frequently if there are problems with your eyes
- diabetes educator, dietitian and podiatrist – for any problems, review and updating of information.

Annual medical review checklist:

- review management goals
- check for diabetes complications
- update and review immunisation schedule
- pharmacist – for a home medication review (if you take several different medications and require help)
- oral health professional – especially if you show signs of dental problems
- referral to an endocrinologist or diabetes specialist physician if required.

In addition to the above investigations, you will most likely discuss the following with your doctor:

- smoking status and be offered assistance with quitting if applicable
- alcohol intake
- issues or any changes in medication regimen
- feet discomfort
- update of family history
- signs and symptoms of, and risk factors for complications
- visual changes
- existence of chest pain
- self blood glucose monitoring regimen and record
- achieved diabetes management targets
- frequency and awareness of hypoglycaemia episodes
- sexual dysfunction
- drivers licence renewal
- conception and pre-pregnancy counselling, if appropriate
- current self-care and management strategies
- National Diabetes Services Scheme (NDSS) registration and Diabetes Queensland membership.
What you need to know about type 2 diabetes

### Average targets for people with diabetes

<table>
<thead>
<tr>
<th>Metric</th>
<th>Target Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blood Glucose Levels</strong></td>
<td><strong>Fasting and before meals:</strong> 6.1–8.0 mmol/L</td>
</tr>
<tr>
<td></td>
<td><strong>2 hours after meals:</strong> 6–10 mmol/L</td>
</tr>
<tr>
<td><strong>Blood Pressure</strong></td>
<td>130/80 mmHg or less</td>
</tr>
<tr>
<td><strong>Total Cholesterol</strong></td>
<td>&lt; 4.0 mmol/L</td>
</tr>
<tr>
<td><strong>Triglycerides</strong></td>
<td>&lt; 2.0 mmol/L</td>
</tr>
<tr>
<td><strong>LDL</strong></td>
<td>&lt; 2.0 mmol/L</td>
</tr>
<tr>
<td><strong>HDL</strong></td>
<td>&gt; 1.0 mmol/L</td>
</tr>
<tr>
<td><strong>HbA1c</strong></td>
<td>53 mmol/mol (7%) or less</td>
</tr>
</tbody>
</table>
| **Albumin Creatinine Ratio** | **Women:** < 3.5 mg/mmol  
**Men:** < 2.5 mg/mmol |
| **Urinary Albumin Excretion** | < 20 ug/min  
(overnight collection)  
< 20 mg/L (spot collection) |
| **BMI**                    | under 25 kg/m² where appropriate      |
| **Cigarette consumption**  | Zero                                  |
| **Alcohol intake**         | For both men and women:  
no more than 2 standard drinks per day try having 2 alcohol-free days per week. |

**Note:** targets differ for each person, what is important is that you know your targets. Ask your doctor and health care team for help.

Behind the wheel

There’s no need for diabetes to restrict your independence or make moving around in your daily life difficult. In reality however, complications associated with diabetes such as visual disturbances, heart disease and nerve damage, can affect your ability to drive. It is vital you know what to do to keep yourself and others safe while on the road. The main hazard for those taking medications such as insulin or glucose-lowering medications is the risk of an unexpected hypoglycaemia.

Above 5 to drive

If you are prescribed insulin or tablets that can cause hypos, you need to test your blood glucose level before driving. It should not be below 5mmol/l. You need to have quick-acting carbohydrate food with you at all times and, for long-distance drives, you need to stop often to test your blood glucose levels and eat regular meals and snacks. If you do suffer a ‘defined hypoglycaemic event’ (see definition below*), you may be advised not to get behind the wheel again for six weeks and your doctor will need to give you the all-clear before you can drive again. If this episode is associated with an accident, the Driver Licensing Authority must be notified.

Like many other medical conditions, diabetes has specific medical standards and guidelines that must be met for licensing and insurance purposes. Austroads, the roads transport and traffic authority for Australia and New Zealand has developed guidelines to assist medical practitioners in determining a client’s fitness to drive with diabetes.

The National Diabetes Services Scheme (NDSS) also provides free to all registrants a Diabetes and Driving brochure which outlines valuable information in regards to driving safely with diabetes.

Driving responsibilities checklist

- I check my BGLs before I drive – I drive above 5 mmol/L
- I carry fast-acting carbohydrates when I drive
- I carry my blood glucose meter when I drive
- I check my BGLs every 2 hours during my drive
- I carry an ID which says I have diabetes
- I see my diabetes health team regularly
- I do not have daytime drowsiness or untreated sleep apnoea
- I have had my eyes checked in the last 12 months
- I have had my feet checked in the last 12 months
- I have advised my driving licence authority I have diabetes.

Reference: Diabetes and Driving NDSS.
For further details: www.transport.qld.gov.au

Reference: Diabetes and Driving NDSS
Pregnancy

Pregnancy in women with type 1 and type 2 diabetes usually results in a normal delivery with no effects on the mother’s or the child’s long-term health. It is recommended you talk to your doctor, credentialled diabetes educator, obstetrician for pre-pregnancy planning and care.

A team of health professionals – including an endocrinologist or diabetes specialist, an obstetrician, a midwife, a diabetes educator and a dietitian assist you before and during your pregnancy to ensure you and baby stay healthy.

Persistent high blood glucose levels increase the risk of abnormal development of the baby and complications for both mother and baby.

Following appropriate advice regarding frequent blood glucose monitoring, regular planned physical activity and a healthy-eating plan are critical for expectant mothers with diabetes. Your health care team should also be made aware of any medications, including complimentary supplements, which you may usually take because some medications are not recommended in pregnancy. Your baby may need to be monitored carefully for a day or two following birth to ensure both of your blood glucose levels have settled satisfactorily.
Sleep apnoea

People with obstructive sleep apnoea (OSA) stop breathing during sleep, sometimes up to 600 times per night. Sleep apnoea has significant health implications, contributing to heart disease, depression, strokes and daytime tiredness. The condition is very common – it affects up to 20 per cent of Australian adults.

The signs and symptoms of sleep apnoea vary from person to person, but include snoring, daytime sleepiness, witnessed episodes of not breathing, morning headache and poor sleep quality. Other symptoms of sleep apnoea include fatigue, impaired memory and concentration, reduced cognitive function, male impotence and poor libido, depression, irritability, dry mouth or a sore throat upon wakening, nocturia and difficulty in achieving weight-loss. Few people experience all of these symptoms, however, and many people with sleep apnoea may have no symptoms at all.

Between 50 and 80 per cent of individuals with type 2 diabetes can also have sleep apnoea, although many do not realise it. Evidence shows that the two conditions are linked, and have shared risk factors including advancing age, being overweight and low exercise levels. Research shows that sleep apnoea may contribute to the onset of diabetes, and that proper treatment of sleep apnoea results in better management of blood glucose levels.

The best way to diagnose sleep apnoea is with an overnight sleep study, which involves measuring breathing, oxygen levels, brain-waves, heart rhythm and leg movements during sleep – preferably in a specialised sleep laboratories and with the supervision throughout the night by trained staff. So it is important that you speak to your doctor about sleep apnoea testing.

The gold standard treatment for sleep apnoea is continuous positive airway pressure therapy (PAP). This provides light air pressure to hold your airway open and, as a result, allows for uninterrupted sleep throughout the night. Normally the air is delivered through a small mask worn over your nose during sleep.

In addition to improving vitality and motivation, mood and general quality of life, research has also found that successful treatment of sleep apnoea with this therapy:

- improves HbA1c, and/or insulin sensitivity
- may reduce metabolic syndrome; up to 13 per cent of patients with sleep apnoea and diabetes may have reversal of metabolic syndrome as a result of successful treatment
- may improve cardiovascular complications linked with diabetes, such as retinopathy and vision impairment.
Travelling and diabetes

People with diabetes are often anxious when travelling. With good planning, there’s no reason why your travels won’t be safe, fun and hassle-free.

Tips for successful travel
- When flying, make sure you’re aware of all up-to-date Australian Airline Security Regulations.
- When travelling with a non-Australian carrier, check well in advance for specific security guidelines.
- Ensure an adequate supply of medication, test strips, insulin, syringes, needles, lancets and spare batteries. Estimate what you will need for the entire trip and then pack more in case some are lost or damaged.
- For insulin, make sure you always correctly store it for the appropriate conditions.
- With insulin and medication, split your supplies and carry in two separate hand luggage pieces, so if one goes missing you still have supplies to keep you going.
- Prior to travelling, have a letter from your treating doctor outlining your current medical conditions, the medication you take, the devices you use. It should also explain that you need to carry sharps (needles, syringes or finger-pricking devices).
- Pack a spare meter – foreign glucose meters may not register in mmol/L.
- Packing insulin pumps, extra batteries, the user guide/manual, a list of your pump settings and extra consumable sets is also essential. You may want to contact the manufacturer to enquire about a spare insulin pump for travel and which pump resources may be available at your travel destination.
- Keep clearly written details of your next of kin or family members on your person at all times and a letter from your doctor outlining your medical conditions, the medications you take and the devices you use.
- Ensure you have appropriate travel insurance for yourself and your belongings, and make sure your accident and health cover applies to both pre-existing conditions and the destinations you plan to visit.
- The Australian Government has health care arrangements with a range of countries providing travellers with benefits similar to Medicare if required, but only for acute or emergency care. In this event, you would need to produce your Medicare card.
- For more information, call Medicare Australia on 13 20 11 or visit their website at www.humanservices.gov.au.
- If you are taking insulin or diabetes tablets, carry some form of quick-acting carbohydrate (such as glucose tablets or jelly beans) in case you experience a hypo. Carry some biscuits or dried fruit in case of delayed or unsuitable meals, but make sure these comply with the regulations!
- If you do require treatment whilst travelling, try to get advice from your insurer and seek medical assistance when needed. Most costs can be recovered through health benefits or your travel insurance when you get home.
Chapter three: Monitoring and care

You are part of a team

Your health care team has been referred to several times throughout this diabetes management guide.

The most important member of that team is YOU, but a range of specialists and health care practitioners will be on hand with support, advice and guidance to assist you with your diabetes management.

These team members include:

**General practitioner (GP or Doctor)**
Apart from you, your GP or doctor holds the central role in coordinating the management of your diabetes. They are your first point of contact and usually assume responsibility, along with you, for the overall management of your diabetes.

Your doctor will arrange for regular blood tests and prescribe and adjust your medication when required.

Your doctor also organises the crucial yearly and quarterly reviews and your annual cycle of care.

The Annual Cycle of Care is a checklist for you and your doctor to use. It is designed to ensure you get all the care and support you need to manage your diabetes over a 12-month period. It involves a variety of tests and checks and could, as a result, lead to referrals to other practitioners such as a diabetes educator, dietitian, optometrist or podiatrist.

**Diabetes educator**
Diabetes educators are health professionals who are university qualified in the speciality field of diabetes education. A credentialled diabetes educator (CDE) has furthered their qualifications by undertaking a significant period of practical training in diabetes management and demonstrated further experience and expertise in the field. CDEs are recognised by Medicare for the provision of Allied Health Service rebates.

Your diabetes educator or CDE assists you in understanding and managing your condition by:
- teaching you how to monitor your blood glucose at home and how to interpret and use the readings to improve your diabetes management
- explaining, in detail, your diabetes medication and helping you to learn more about the day-to-day self management of your diabetes
- discussing the importance of regular physical activity and eating a healthy diet
- helping you to correctly look after your feet
- teaching you what to do on sick days and when you travel
- discussing how to deal with stress effectively and referring you for help if necessary
- advising you about the importance of registering with the National Diabetes Services Scheme (NDSS). This will allow you the opportunity to buy diabetes supplies at a reduced rate as well as have access to resources and education on diabetes management.

**Dietitian**
Lifestyle changes such as a healthy-eating plan, regular physical activity and achieving weight loss can be enough to control blood glucose in many people newly diagnosed with type 2 diabetes. Even once other treatments such as medications and insulin are introduced, a healthy-eating plan and regular physical activity remain essential for the successful management of your diabetes. Your dietitian, therefore, plays a pivotal role in your team. Whenever changes or adjustments are required to your current treatment plan, your dietitian may need to recommend individualised adjustments to your eating plan. It’s important to recruit a dietitian to your team as early as possible after diagnosis to ensure comprehensive and accurate education on one of the most important aspects of diabetes management.
Podiatrist
Podiatrists are university-trained health professionals who assess and provide treatment and management for feet. They will teach you how to care for your feet, the importance of suitable footwear and provide general information about how diabetes affects your feet. Diabetes related foot complications are very common and the cause of preventable pain and discomfort. It is recommended you should see a podiatrist when you are first diagnosed to have a comprehensive assessment of your needs.

Ophthalmologist/optometrist
Your optometrist or ophthalmologist will detect any impact diabetes may have on your eyes well before it affects your vision. They may take photographs of your retina, at the back of your eye, to make comparisons and track any changes. It is recommended eye tests be conducted at least every two years.

Oral health professional
Dental and periodontal complications are common in people with diabetes. Make sure your dentist is aware you have diabetes and pay regular visits to keep on top of any problems.

Exercise professional
An exercise professional such as an accredited exercise physiologist or a physiotherapist can advise you on how to increase your physical activity levels. If it has been some time since you were physically active, your doctor may refer you to an exercise professional who can tailor a fitness program suited to your particular needs and physical capabilities.

Endocrinologist/diabetologist
Endocrinologists and diabetologists are doctors who specialise in diabetes. Not everyone with diabetes needs to see an endocrinologist or diabetologist but your doctor may refer you to one. Your GP will work with the specialist (and yourself) to develop the best diabetes management plan for you, including dealing with any diabetes-related complications.

Aboriginal health worker
Aboriginal health workers can join your team to provide you with culturally appropriate information. They offer clinical and primary health care for individuals, families and community groups. They deal with patients, clients and visitors of hospitals and health clinics, and can assist in arranging, coordinating and providing health care.

Counsellor
Talking about living with diabetes can help you better manage the condition and identify problem areas. A qualified, registered counsellor is a professional trained to help you with personal, social and psychological or emotional problems. Counselling is an important part of your diabetes management plan as it helps you deal with and create achievable goals around diabetes management. Your doctor may refer you to a psychologist or professional counsellor in your area.
Diabetes Queensland understands that no two people with diabetes are the same. Each person requires personalised information and assistance at different stages of their diabetes journey.

Supporting more than 200,000 NDSS registrants and 40,000 financial members, Diabetes Queensland works hard to improve the lives of people affected by all types of diabetes by providing ongoing education, support and advice to health professionals, government, researchers and the broader community.

Members receive access to latest diabetes news, wide ranging support from access to online resources, advice through the Diabetes Queensland Helpline to being linked with local support groups, invitations, discounts and access to diabetes education events and programs, and discounted diabetes management products.
National Diabetes Services Scheme (NDSS)
The NDSS in Queensland is managed by Diabetes Queensland. NDSS pharmacies are the place to go for reduced prices on all your diabetes supplies. The scheme provides diabetes products at a discount and offers information and support services.

Registration is open to Australians with diabetes, is free and lasts a lifetime. For information please call 1300 136 588 or go to www.ndss.com.au.

Helpline – 1300 136 588
The Diabetes Queensland Helpline takes nearly 80,000 calls a year from people wanting information about and support for dealing with diabetes.

The Helpline takes inquiries about the NDSS and Diabetes Queensland membership and provides general advice on managing and preventing diabetes.

Anyone can use the service for the cost of a local call. The Helpline is open weekdays from 8:30am to 4:45pm.

However, the Helpline is not an emergency service and refers to local medical emergency services when necessary.

Support groups
Support groups are really important in the lives of many people with diabetes. Doctors and other health professionals often recommend them to patients and families dealing with diabetes.

Contact Diabetes Queensland on 1300 136 588 for information on support groups near you.

Connect 2
Connect2 helps people adjust to life with type 2 diabetes.

The Connect2 service offers practical and emotional support to people recently diagnosed with type 2 diabetes.

People who have been diagnosed with type 2 diabetes can speak with trained volunteers who have lived with type 2 diabetes for several years. Volunteers can share their own experiences of being diagnosed and offer practical support to assist with self-management.

Please contact Diabetes Queensland on 1300 136 588 for more information about either receiving support or becoming a volunteer.
Chapter four: Support

Medicare

Under Medicare you may be entitled to claim reimbursements (rebates) for some or all of the cost of seeing health care professionals privately.

GP visits
There are a number of services provided by your GP that can be rebated under Medicare. These are aimed at improving your diabetes management and include regular assessments and the cost of developing a care plan with your doctor, called a GP Management Plan. If you have complex needs, your GP may also develop a Team Care Arrangement (TCA) to help manage your diabetes. The TCA helps you connect with other health care professionals in the diabetes team.

Ask your GP for more information about these services. Here is some information on other current Medicare rebates for people with diabetes.

Allied health services
A Medicare rebate can be provided for up to five individual visits a year to allied health professionals following the development of a TCA.

The five visits can be provided by a single allied health professional or shared across any of these professionals:
- Aboriginal health workers
- audiologists
- chiropractors/osteopaths
- diabetes educators/dietitians
- exercise physiologists
- mental health workers
- occupational therapists
- physiotherapists
- podiatrists
- speech pathologists.

Group education
Eight hours of group education sessions are run by diabetes educators, dietitians and exercise physiologists. These sessions can cover topics such as blood glucose monitoring, food labels, recipe modification, exercise strategies, health care concerns and strategies for maintaining change in your life. To be eligible for these rebates, you must have a GP Management Plan and be referred by your doctor to a suitable group education provider.
Psychology
You can claim for up to 10 visits a year to see an accredited psychologist under a GP Mental Health Care Plan – talk to your GP about this. In exceptional circumstances you may be eligible to further visits to a psychologist.

Home medication review
Another useful service for people with diabetes, especially those taking a number of medications. Trained pharmacists carry out home visits and check all your prescription and complementary medications. They will identify any out-of-date stock, duplicate drugs, drug interactions and discuss any concerns you may have in relation to your condition or medications. The pharmacist can also check the device you use for taking your blood glucose level and make sure you are using it correctly. This is available once a year.

Aboriginal health services
Comprehensive diabetes care is available under Medicare for Aboriginal and Torres Strait Islander people.

For more information contact Medicare on 13 20 11 or www.humanservices.gov.au.

One assessment service per year
Your GP can refer you to a diabetes educator, dietitian, or exercise physiologist for an assessment. They will take your medical history, work out your individual goals and prepare you for group services programs.

Eight group services per calendar year
Group service sessions are run by diabetes educators, dietitians and exercise physiologists. The sessions can cover topics such as blood glucose monitoring, food labels, recipe modification, exercise strategies, health care concerns and strategies for maintaining change in your life.

To be eligible for these rebates, you must have a GP Management Plan. This provides a structured approach to your care – it is a plan of action in which you agree on management goals with your GP.

You may also need Team Care Arrangements that enable your GP to collaborate with at least two other care providers involved in your treatment.
## Useful contacts

**Diabetes Queensland**  
www.diabetesqld.org.au  
Ph: 1300 136 588

**National Diabetes Services Scheme (NDSS)**  
www.ndss.com.au  
Ph: 1300 136 588

**Australian Dietary Guidelines**  
www.eatforhealth.gov.au

**Australian Indigenous Healthinfonet**  
*(Edith Cowan University)*  
www.healthinfonet.ecu.edu.au

**DAFNE (Dose Adjustment For Normal Eating)**  
www.dafne.org.au

**Department of Health**  
www.health.gov.au  
Ph: 1800 020 103

**Department of National Parks, Recreation, Sport and Racing**  
www.nprsr.qld.gov.au

**Department of Veterans’ Affairs**  
www.dva.gov.au  
Ph: 133 254

**Diabetes Australia**  
www.diabetesaustralia.com.au

**Diabetes Australia – Multilingual Resources**  

**Diabetes Counselling online**  
www.diabetescounselling.com.au

**Diabetes Kids and Teens**  
*(Australian Diabetes Council)*  
www.diabeteskidsandteens.com.au

**GI Database**  
www.glycemicindex.com

---

**Go for 2 & 5**  
www.gofor2and5.com.au

**Health Direct Australia**  
*(Australian Government initiative)*  
www.healthdirect.gov.au  
Ph: 1800 022 222

**Health information in your language**  

**Healthy Shopping**  
www.diabetesqld.org.au/healthy-shopping

**Juvenile Diabetes Research Foundation (JDRF)**  
www.jdrf.org.au  
Ph: (07) 3831 0544

**Kids Helpline**  
www.kidshelp.com.au  
Ph: 1800 551 800

**Lifeline**  
www.lifeline.org.au  
Ph: 13 11 14

**Medicare Australia**  
www.humanservices.gov.au  
Ph: 13 20 11 (local call)

**myD – My diabetes for under 25s**  

**Queensland Health**  
www.health.qld.gov.au  
Ph: 13 HEALTH (432584)

**Royal Flying Doctor Service (RFDS)**  
www.flyingdoctor.org.au  
(Call 000 for emergencies)

**sane Australia**  
www.sane.org  
1800 18 SANE (7263)

**Shape Up Australia**  
www.shapeup.gov.au
What you need to know about type 2 diabetes

Other useful contacts

Sweet – Diabetes Transition to Adult Care Program
www.sweet.org.au

Translated diabetes resources

TravelSmart program

Type 1 Diabetes Network Inc.
www.t1dn.org.au

Vision Australia
www.visionaustralia.org.au
1300 847 466

10,000 steps
www.10000steps.org.au
We can help you stay on top of diabetes

Connect with Queensland’s largest diabetes community, their families, carers and health professionals.

Diabetes Queensland provides access to resources and support to help you live well with diabetes.

- contact our diabetes Helpline 1300 136 588 for information about diabetes
- connect with your local support group to meet others with diabetes
- attend programs and activities for people with type 1, type 2 or gestational diabetes, youth, children and families

- access diabetes education and support services provided by a team of health professionals
- receive the latest news, research developments and information through our website, publications and e-newsletter.

Be a part of our community.

To register, email membership@diabetesqld.org.au or go to www.diabetesqld.org.au to find out more.