



Information on Type 2 Diabetes in English

English

Foreword

I am delighted to be able to welcome you to 'Information on Type 2 Diabetes in English'.

Diabetes is a national health priority area for the Australian Government. It is Australia's fastest growing chronic disease. About 1.5 million Australians have diabetes and around 350,000 of them use insulin to help manage their diabetes.

Bolton Clarke's clients and residents come from more than 168 countries and speak 133 languages. We are committed to assisting all people to learn about their health and to better manage their health problems. 'Information on Type 2 Diabetes in English' is one way in which we can help people to do this.

Using simple information sheets, 'Information on Type 2 Diabetes in English' presents information on how to look after your diabetes in a way that is easy to understand. You have the choice of reading the information, or listening to it. In total, 10 important topics on diabetes are covered to help you better manage your condition.

There have been many people involved in putting this important resource together. We would like to acknowledge and thank the more than 300 community members from various planned activity groups that meet in different areas of Melbourne who participated in the testing of the information.

At Bolton Clarke, sincere gratitude goes to the Bolton Clarke Project Team – Rosemarie Draper and Tracy Aylen.

I hope that 'Information on Type 2 Diabetes in English' helps you to better manage the condition, understand the risk factors and improve your quality of life.

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Diversity Manager

Note

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What is diabetes?

Diabetes is a condition where high blood sugar (glucose) levels occur in the blood.

Everyone has some blood sugar. Your body needs to use this blood sugar for energy but the blood sugar will not work by itself. To use blood sugar for energy in places like the muscles, the body also needs insulin.

Insulin is what helps to move the blood sugar out of the bloodstream to areas of the body where energy is needed. Insulin is made in a gland called the pancreas, which is near the stomach.

In diabetes there is not enough insulin, or the insulin does not work properly. This causes a problem moving the blood sugar from the bloodstream into other areas of the body, like the muscles. The blood sugar level builds up and this is when we say a person has diabetes.

If the blood sugar stays too high, it can lead to many health problems.

Health care workers

Your **Doctor** provides you with ongoing medical care. Sometimes the doctor may refer you to see a diabetes specialist if you need extra help. All of the health care workers you see should work with you as a team so you get the best care.

A **Nurse** can provide general information about diabetes and nursing care.

A **Pharmacist** is an expert for medicines. You can ask your pharmacist about the medicines you take.

A **Diabetes Educator** helps you to learn about preventing health problems. Diabetes educators teach you about checking blood sugars, general advice about foods, activity and exercise and medicines.

An **Endocrinologist** is a specialist doctor for diabetes. They can help if you have problems, for example complications or unstable blood sugars.

A **Podiatrist** is an expert in foot care and can help if you have corns, calluses or other problems. They will advise you on care of your feet.

A **Dietitian** provides information on healthy eating. They can help you with special advice about foods. For example a special diet for a medical problem.

An **Exercise Physiologist** or **Physiotherapist** helps you to plan and do suitable exercises to keep healthy and active.

An **Optometrist** can check your vision and prescribe glasses.

A **Psychologist** is a specialist in counselling and helping people to manage concerns about living with diabetes.

How can my doctor help me?

Your doctor will need to check your health regularly.

Talk to your doctor about how often you will need a check-up. Your doctor will do the following tests:

- **Blood test (HbA1c)**
The medical word for this test is HbA1c. This test involves taking a blood sample from a vein in your arm. The blood test is to look at the average blood sugar level over a few months. The blood is sent to the laboratory for testing.
- **Cholesterol blood test**
A blood test to check special fats in your blood.
- **Feet examination**
An examination of the feet for loss of feeling or injury.
- **Blood Pressure test**
An important test for general health and diabetes.
- **Eye test**
An examination of the back of your eyes as diabetes can affect this part of the body.
- **Kidney tests - Blood and urine**
Tests to check for effects of diabetes on the kidneys.

It is also advisable to have both flu and pneumococcal (pneumonia) injections.

Your doctor may refer you to a specialist for diabetes to help manage your condition.

Looking after my diabetes (1)

There are different types of diabetes. The three main types are:

Type 1 diabetes

Type 1 diabetes occurs mainly in younger people; however it can occur in some older people.

Type 2 diabetes

Type 2 diabetes occurs mainly in older people; however more and more young people are getting this type of diabetes. This is the most common type of diabetes.

Gestational diabetes

Gestational diabetes affects some women while pregnant. It usually goes away after the baby is born. For women who develop gestational diabetes, it may mean a higher risk of type 2 diabetes later in life.

You can look after your diabetes by eating healthy food, doing some exercise and being more active. This is very important to help manage your level of blood sugar.

If there is still too much blood sugar you may need some medicines to manage your diabetes.

You can test your blood sugar level on a machine called a blood glucose meter or blood sugar machine. Usually the levels for the blood sugar are between 4 to 8 for someone without diabetes.

Your doctor will do regular blood and urine tests for your diabetes. You will also have your blood pressure, eyes and feet checked regularly. This is to help prevent any complications. If you are not having these tests done, speak to your doctor.

Looking after my diabetes (2)

Diabetes is a chronic condition that continues for life. But it should not stop you enjoying your life, just like everyone else. You are the most important person when it comes to looking after your diabetes and staying well. You need to know what to do for your diabetes to manage it in the best way for you.

The health care workers that you see are part of your diabetes team. They provide treatment for your diabetes. Their other job is to help you learn what to do between visits, so that you can best look after your diabetes. The diabetes care that you do for yourself between visits to health care workers is called 'self management'.

You are in charge of your daily care. There is a lot to learn about looking after your diabetes. Start with some small steps. Soon you will know a lot more about looking after your diabetes such as:

1. Following a plan for healthy eating
2. Staying active
3. Checking your blood sugar (glucose) levels
4. Taking your medicine
5. Learning more about diabetes
6. Looking after your emotional health (how you feel)
7. Taking action to stay healthy

There are information sheets on all these areas to help you. If you have more questions, ask someone from your health care team. For example, your doctor or diabetes educator.

Looking after my diabetes (3)

You will need a self management plan about how to best look after your diabetes.

Each health care worker in your diabetes team is part of this plan. But they do not know all about you and your life. You are the expert on this area. So they need help to make the best plan with you. This way everyone will know what you want and you can work together.

The doctor, nurse or diabetes educator are the health care workers that often help make the plan. They will ask you questions about what you think is important. For example, what you think is a problem and what you want to change. This is called making a 'goal'. A goal is something that you want to happen. When the plan is ready you should be given a copy.

Health care workers will also ask if you are ready to make a change, or just thinking about a change to help reach your goal. For example, using less sugar or to stop smoking. Sometimes you have already tried to change and it did not work. Or maybe the change did work but only for a while. You might already be looking after that problem very well and not need to change anything. All this is important information to make the best 'self management' plan for you.

Tell all your health care workers you have a self-management plan. If you think it is alright you can give them your plan to make a copy. This should stop someone writing a new plan and asking the same questions again.

Alcohol and diabetes

Some people may like to drink alcohol. A small amount of alcohol is safe. If you use alcohol try to have some days each week where you do not drink.

Complications can develop if you drink too much alcohol. Alcohol can also make it more difficult to manage your diabetes.

The most amount of alcohol to have is two standard drinks per day. A 'standard drink' amount is:

- Beer - 285mls of regular beer or 425mls of low alcohol beer (light beer). Ask for a light alcohol beer not a diet beer. Diet beer has a similar amount of alcohol to normal beer.
- Wine – 100mls.
- Spirits (For example, whiskey) – 30mls.
- Fortified wines (For example, port and sherry) – 60mls.

The label on the alcohol shows the amount of standard drinks in the bottle or can. Recommendations for drinking alcohol can change if you have other health problems.

Other important points:

- Beer, wine and strong alcoholic drinks (spirits and liqueurs) are high in energy. This can cause weight gain and other problems.
- Alcohol should not be taken on an empty stomach. It can lead to a low blood sugar (hypo) if you are on certain tablets or insulin. You should always have a meal or a snack such as bread or dry biscuits if you drink alcohol.
- Drinking alcohol can decrease your ability to recognise and treat low blood sugar. Other people may confuse your symptoms of low blood sugar with being drunk and not help you.

Speak to your doctor or health care worker for more information.

Do not drink and drive.

Can I have sugar?

Yes, a small amount of sugar is alright when used in cooking or as part of a meal. For example, you can have a small amount of honey or jam on your bread. You will need to be careful about the amount of sugar you have each day. Look out for:

- Foods that are high in sugar. These can increase your blood sugar (glucose) level. For example, honey, lollies, soft drinks, cordials, biscuits.
- Foods that are high in sugar and fat. For example, chocolate or ice-cream. Choose a low fat option instead.

Can I use an alternative sweetener?

A small amount of sugar is suitable if your diabetes is well controlled. If you like to have more sweetness in what you eat or drink, an alternative sweetener can be added. Some sweeteners can also be used in place of sugar when cooking.

There are many types of alternative sweeteners. You can buy an alternative sweetener to add to your food or drink or you can buy foods and drinks with the alternative sweetener already in them. Food or drink labeled 'diet' or 'low joule', such as soft drinks and cordials usually contain alternative sweeteners.

Some foods may use alternative sweetener but can be high in fat. These are not a good choice. For example, 'diabetic' chocolate or 'carbohydrate modified' ice-cream. Choose a low fat option instead.

Some alternative sweeteners can affect your blood sugar level. You should check your blood sugar just before having the alternative sweetener or food containing an alternative sweetener. You should check your blood sugar again after two hours to see if there is any effect. You might need to repeat this a couple of times, to make sure the effect is due to the artificial sweetener.

If you have any questions or concerns speak to your doctor or diabetes specialist.

Can I eat fruit?

All fruit has a special fruit sugar called 'fructose'. This is what makes fruit taste sweet. The fructose has a slower effect on the blood sugar (glucose) than other types of sugar, like the sugar you cook with.

Will fruit increase my blood sugar?

Sometimes you will hear people say not to eat fruit because it will increase your blood sugar. Fruit is an important part of a healthy balanced diet.

Fruit is good for people with diabetes but too much fruit is not.

It is good to eat 2 pieces of fruit a day. One piece of fruit is equal to around one handful. For example, an apple that fits into the palm of your hand, or a small bunch of grapes. The recommended amount of two pieces of fruit a day includes dried fruit and canned fruit. Drain the juice from the canned fruit.

Some fruits will increase the blood sugar more quickly if you have too much all at once. Spread out the fruit you eat across the day, rather than eating 2 pieces at one meal. A piece of fruit is a better choice than fruit juice.

If you have any questions or concerns about eating fruit speak to your doctor or diabetes specialist.

Healthy eating

Good health is important for you and your family. Food is one of the most important parts of looking after your health and diabetes.

There are a lot of foods high in fat in Australia and they are very popular. Some of these foods for example, cakes or biscuits used to be eaten only on special occasions, such as a wedding or baptism. Today, we eat these foods more often and we are also eating 'take-away foods' like pizza, hamburgers and fried chips. We eat more fat and we are less active. This increases the risk of problems like diabetes.

The traditional way of eating and living, in the past, was much healthier. People ate more fresh vegetables, fruit, bread and grains. They ate less red meat.

Your doctor or nurse can give basic information to help you begin to learn what is good to eat. It will be helpful to see a dietitian when you are diagnosed with diabetes. The dietitian specialises in information about food. They help people who may be underweight or overweight, or who have other health problems.

Your doctor or diabetes specialist will talk to you about a referral to a dietitian. Some community health centres and most hospitals have a dietitian working for them.

General advice about food

Here are some ideas to help you with healthy eating:

Eat moderate amounts of food to:

1. Keep your blood sugar in target range
2. Stay at a healthy body weight
3. Lower the risk of complications, and
4. Manage your cholesterol and triglyceride level (special fats in the blood).

Spread your meals across the day

Your body needs to make insulin to use the energy from the food you eat.

If you eat a large amount of food at one meal it is very hard for your body to make enough insulin. Your blood sugar may get too high.

With diabetes, it is important to spread out your food intake to help manage your blood sugar.

Your meals should:

- Include high fibre foods like vegetables, fruit, wholegrain breads and cereals
- Be low in fat, and
- Provide a healthy balanced diet for good health.

Carbohydrate foods

Carbohydrate is a medical term for one group of foods. Carbohydrate foods include bread, dried beans, rice, potatoes, corn, cereal and pasta. Fruit and milk products also have some carbohydrate.

When we eat, the body breaks down the carbohydrate foods to a type of sugar. The medical name for this type of sugar is glucose. This sugar then moves from the gut into the bloodstream.

Carbohydrate foods will often fill you up quickly. These foods are a good source of energy for your body to use. Find out how much carbohydrate food is right for you.

Some carbohydrate foods will increase the blood sugar quicker than others. You need to choose foods that have a slower effect on the blood sugar most of the time. These foods will help keep your blood sugars more even.

General advice about eating carbohydrate foods

- Eat some carbohydrate foods with each meal
- Choose wholegrain or wholemeal bread
- Cook Basmati or Doongara rice (This rice has a slower effect on blood sugar)
- Try beans, chick peas, lentils
- Use a small amount of sugar, and
- Avoid foods high in sugar such as lollies, cordial and soft drinks.

If you have a question about carbohydrate foods, ask your healthcare worker. If you need more information, a dietitian can give you advice about diabetes and carbohydrate foods.

Fats

Being overweight can make it harder to manage your blood sugar (glucose).

Eating too many foods that contain fat can add to weight problems.

Reducing the fat in your food helps to manage your weight and keep your heart healthy. It will also help to manage the level of fats in your blood (the medical name for this is cholesterol).

Here are some ways you can reduce fat:

- Change your cooking methods. For example,
 - Instead of frying try to grill or barbecue, or use a non-stick pan
 - Use steaming instead of frying
- Use less oil in your cooking
- Use small amounts of nuts, seeds and olives
- Choose low fat varieties of dairy foods such as milk, yoghurt and cheese
- Limit foods that are high in fats such as cakes, chocolate, chips, pastries, donuts and fried foods
- Trim the fat from meats such as beef, chicken, lamb and pork
- Eat less meat and more fish
- Use lean minced meat, and
- Limit processed meats such as sausages and salami.

How can exercise and physical activity help me? (1)

Regular exercise/physical activity is very important to keep you strong and healthy. It also helps you to:

- Decrease blood pressure
- Manage blood sugar (glucose) levels
- Improve heart function
- Reduce stress and sleep better
- Strengthen muscles
- Improve weight and appetite, and
- Relax

Examples of exercise / physical activity:

- Walking to the mailbox
- Doing the housework (For example, sweeping, cooking, washing)
- Fishing
- Gardening (For example, mowing the lawn, weeding and digging)
- Repairs around the home
- Brisk walking
- Dancing
- Swimming
- Tai Chi
- Riding a bicycle

Less time sitting and more time standing and moving.

If you are unable to stand then you can still do exercises in the chair.

Enjoy your activities. Change them regularly so you don't get bored.

How can exercise and physical activity help me? (2)

Your doctor will need to assess your health before you begin a new exercise / physical activity program. Talk to your doctor or health care worker about what kind of exercise will be good for you and how to prepare.

Start slowly. Gradually increase up to 30 minutes of exercise every day. This does not have to be in a 30 minute block. You may wish to do 10 minutes of exercise in three lots during the day. This may be easier for you.

Walking is the simplest form of exercise for most people. There are many other physical activities that you can enjoy and that can also benefit you. Gardening, dancing or housework are other examples. Enjoy what you do and change your activities so you don't get bored with them. Exercise should be fun and not cause pain.

After you exercise, check your feet for any injuries that might be caused by your shoes. Read the 'Care of the feet and diabetes' information sheet or talk to your podiatrist.

When you start to exercise it is good to check your blood sugar level before, during and after exercise. This will help you learn how your blood sugar levels will respond to different activities.

When you are taking medicines for your diabetes, additional exercise may cause low blood sugar. The medical word for this is hypoglycaemia or 'hypo'. Hypos can occur during exercise or up to 12 hours after. Sometimes your blood sugar level may rise straight after your exercise. This is not uncommon. If this happens re-check again in 1 to 2 hours.

For your safety, always carry something sweet with you such as glucose tablets or jelly beans, in case of low blood sugar.

Your doctor can refer you to a specialist in exercise for people with health problems (an exercise physiologist) if you need advice and support.

Will diabetes affect my eyesight?

People with diabetes can have more problems with their eyes than people who do not have diabetes. High blood pressure and high blood sugars (glucose) can increase the risk of problems.

Problems that can affect your eyesight:

Temporary changes - Sometimes the eyesight is blurred because the blood sugars have been too high. When the blood sugar is on target (Most readings from 4-8), the eyesight goes back to normal. This can take many weeks.

Cataract - The lens inside the eye is clear and acts like the glass in a pair of spectacles to help you focus. If the lens gets cloudy, we call this a cataract.

Damage or bleeding to the back of the eye - The lining at the back of the eye is called the retina. Diabetes can damage the small blood vessels in this lining. The medical term for this is retinopathy.

Glaucoma - This is an increase in the pressure inside the eye.

To prevent loss of sight, it is **very important** to find these eye problems early. There are treatments to help stop the loss of eyesight.

Your doctor can organise the tests for the above problems. You should tell your optometrist or eye specialist that you have diabetes.

Remember, have your eyes checked **at least once a year**. Don't wait until you notice a problem. If you notice a change in your eyesight in between tests, go back and get them checked.

Care of my teeth

People with diabetes are more likely to have problems with their teeth and gums than people who do not have diabetes. Common problems with teeth and gums include:

- Red, swollen, sore or bleeding gums
- Bad breath
- Mouth ulcers
- Dry mouth
- Bad taste in mouth, and
- Tooth decay.

High blood sugar levels and smoking can lead to teeth and gum problems. If you experience teeth or gum problems you should visit the dentist.

Some ways to avoid teeth and gum problems include:

- Brush your teeth twice a day. This keeps them clean and your gums healthy
- Replace your toothbrush when it starts to look worn out
- Manage your blood sugar levels
- Don't smoke, and
- Visit the dentist every 12 months for a check-up.

If you wear dentures, make sure they fit correctly. Loose-fitting dentures can cause irritations and infections.

Tell the dentist you have diabetes. The dentist will be able to prevent or reduce problems during or after treatment.

Care of the feet and diabetes

The flow of blood to the feet may sometimes be slower when you have diabetes. The nerves that provide feeling in your legs and feet can also be affected by diabetes. You can have parts of the skin that feel numb or you might have a feeling of pins and needles over your feet.

Most people with diabetes have heard about the serious problems that can happen to feet, such as infection or ulcers. Minor injuries can become worse, if not treated quickly. Some problems are more common in people with diabetes. Most problems can be stopped, if you know how to care for your feet properly.

Good foot care is the best way to stop your feet from getting these problems.

There are some people who specialise in preventing problems with your feet. These specialists are called podiatrists and can help work out the best way to care for your feet.

Your doctor or nurse can also show you the basic points so your feet get good care. Have your feet checked by a health care worker at least every six months.

How can I best care for my feet?

Look after your feet every day

- Check both of your feet. Also check between the toes. Use a mirror or ask a friend if you cannot see properly
- Wash your feet and dry carefully
- Apply some foot cream to stop dry skin (do not apply between toes)
- Make sure the cream has soaked in or wear shoes before you walk to avoid slipping over
- Wear clean wool or cotton socks
- Do not wear anything with tight elastic, as it can slow the blood flow
- Wear good fitting shoes that do not press on your feet.

How to avoid injury

- Only use warm water, not hot water on your feet
- Do not use hot water bottles, wear bed socks instead. Turn off the electric blanket before you get into bed
- Do not walk in bare feet indoors or outdoors. Wear something to protect your feet all the time, even at the beach
- Look inside your shoes before you put them on. Check for objects inside your shoes with your hand. Make sure your shoes are not damaged and nothing has fallen in, such as a small stone
- Cut your toenails straight across and file off the edges with a nail file. Do not dig down the side of your toenail and do not cut your toenails shorter than the end of your toe
- If you have trouble reaching your feet or if you cannot see clearly, ask your GP about getting some help from Medicare for seeing a podiatrist
- If you have corns, a build up of rough dry skin (callus) or other foot problems, you need to see a podiatrist, and
- Visit your doctor if any cuts or sores do not heal or if you are worried about swelling, redness or discharge. Remember that minor injuries can get worse if not treated quickly.
- Speak to your GP if you notice any changes in your feet (see 'Care of the feet and diabetes' information sheet)

Cholesterol and diabetes

Cholesterol is a type of fat that everyone has in their blood.

Cholesterol is made up of different parts. The good parts of cholesterol (HDL) help to keep blood vessels clear, so the blood can flow easily. The bad parts of cholesterol (LDL) can cause blood vessels to become narrow or blocked. Another type of blood fat called triglyceride can also cause blockages if the level is too high.

When you have diabetes the bad parts of cholesterol may be increased. The good parts of cholesterol may be reduced. These changes increase your chance of narrow or blocked blood vessels. Narrow or blocked blood vessels can cause many health problems. For example:

- the risk of heart attack or stroke
- the risk of slow blood flow to your feet

You can help to keep your cholesterol at the target level by eating a healthy diet and keeping active. Cholesterol tablets will help to correct the balance and reduce the risk of blockage to blood vessels if your level is high.

Ask your doctor or diabetes team for more information about:

- exercise and diabetes
- foods and diabetes

You can also ask your doctor about help from Medicare to cover some of the costs (Medicare Chronic Disease Management items).

Your doctor will check your cholesterol level with a blood test at least once per year.

Blood pressure and diabetes

Your heart pumps blood around your body through tubes called blood vessels. The blood pressure is a measure of the pressure in these vessels when the heart pumps. A blood pressure check gives two numbers. You will see them written like this: 130 / 80.

Many people have problems with diabetes and high blood pressure. Some people have a family history of high blood pressure. Untreated high blood pressure can lead to kidney disease, heart attack, stroke, eye problems and nerve damage.

For people with diabetes, the first result should be mostly 130 or less. The second should be mostly 80 or less. If you already have some problems with your kidneys the numbers should be 125 / 75 or lower.

The best way to help your blood pressure is to:

- Be active and exercise regularly
- Eat a healthy diet
- Eat less salt and reduce fats in food
- Reduce excess weight
- Stop smoking
- Drink less alcohol

Tablets will be needed if your blood pressure is still too high. More than one type of blood pressure tablet might be given to control the blood pressure.

Ask your doctor to check your blood pressure each time you visit the clinic.

Stress and diabetes

Everyone has some stress in their life. While something may be stressful for one person, it may not be for another. We respond to stress in different ways. Many people believe that stress can affect their diabetes.

The mind and the body are linked. When your mind notices a stressful event it starts changes in the body responses to help you cope. An example of a good stress could be a surprise birthday party. An example of a bad stress might be a large dog chasing you or the illness of a family member.

Some physical changes that can happen with stress:

- Faster heart beat
- Faster breathing (more oxygen for the brain and muscles)
- Blood sugar (glucose) level rises to give your body more energy
- Blood pressure increases

High levels of stress that keep happening can cause problems with your blood sugar level because the mind and body are linked. The way you manage the stress can make things better or worse.

If you think that stress is causing you problems:

- Talk to friends or family.
- Contact your doctor or diabetes educator about getting some help and support.
- Keep active and eat healthy foods.

If your symptoms last for more than a few weeks, you may have another medical problem such as anxiety or depression. Depression is more common for people with diabetes. Talk with your doctor about treatment.

Why should I check my blood sugar (glucose)?

Your blood sugar level should be in the expected range most of the time if you eat healthy meals, do regular exercise/physical activity and take medicines (if prescribed).

The only way to know if your blood sugar level is in the expected range is to check using a blood sugar machine (blood glucose meter) and the matching test strips.

If your blood sugar levels are high or low you may need to make some changes to your food, exercise or medicines in consultation with your doctor or diabetes specialist. It is very helpful for the doctor or diabetes specialist to know your blood sugar levels.

There are three main ways to check your blood sugar levels. One way is through an HbA1c test that your doctor will do (read 'How can my doctor help me?'). The second is the finger prick test that you can do at home. The third is flash glucose monitoring.

Finger prick test

This blood sugar test is done by pricking your finger to get a drop of blood. Put a test strip into your blood sugar machine (meter). Apply your blood to the test strip. It only takes a few seconds to get a result.

'Flash' glucose monitoring

A small glucose sensor is inserted under the skin for up to 14 days. You use a reading device (meter) to record the results. The reading device can send the results to a computer. You still need to check your blood sugar with a finger prick test as needed.

Medical studies have shown that if your blood sugar level is close to target, this will reduce the risk of getting complications. The target range for blood sugar level is between 4 to 8 mmol/L.

When you see your doctor you need to talk about the target range of blood sugars for you. Not everyone is the same.

My target range for blood sugar level is: _____ to _____

How do I test my blood sugar?

Your nurse or the diabetes educator will teach you how to test your blood sugar and tell you the best times to test. They will also teach you how to use the blood sugar machine (blood glucose meter) and where to get the diabetes supplies. If you have any problem they will be able to help you sort it out.

General instructions to test your blood sugar

1. Wash and dry your hands
2. Put the test strip into the blood sugar machine (meter).
3. Prick your finger with the lancet (finger pricker)
4. Put a small drop of blood onto the test strip
5. Wait for a few seconds till you see the result

What times should I test?

The best times to test are before meals, two hours after meals and before going to bed. The best thing to do is to talk with health care worker about when to do the blood test. The number of tests you need might change.

Write down your blood sugar results

Write your blood sugar results in a notebook. You can buy a notebook yourself or get a special diabetes record book for this purpose.

You can write the notes in English or another language. You need to record the date, time of the test, and if before or after food. If your blood sugar is high or low then writing down extra information is important. For example, dose and type of insulin, missed dose, going out to eat, feeling sick and anything else you think might be important.

Take your notebook when you visit your doctor. The information can help you and your doctor make the right changes for your diabetes care.

What can I do about high blood sugars? (1)

High blood sugar is known as hyperglycaemia

You manage your blood sugar level by the balance of food, activity and medicines you take. Sometimes the balance is uneven and this might cause the blood sugar to rise. If your blood sugar remains high (above 10) check the list of possible causes and what you may need to do.

POSSIBLE CAUSES	WHAT TO DO
Food choices	Check foods are not high in sugar or high in fat Reduce amounts if eating more than usual
Not enough activity	Increase your activity and exercise
Emotional stress	Talk to your health worker
New medicines	Check all medicines with the doctor or chemist
Illness	See your doctor as soon as possible
Insulin or tablets	Check you have not missed a tablet or injection Check you are taking the right dose of medicines
Equipment	Check the blood sugar machine (blood glucose meter) is working Check the expiry date on your strips Check the insulin pen or device is working correctly
Hand wash	Make sure you wash and dry your hands before each test

Remember:

- Continue to take your usual medicine
- Increase the number of blood sugar tests
- See your doctor
 - If you have high blood sugar (between 15 to 20) for more than two days
 - If your blood sugar is above 20, or
 - If you feel unwell.

What can I do about high blood sugars? (2)

Signs and symptoms of high blood sugars (hyperglycaemia)

- Passing urine more often
- Thirst
- Dry mouth
- Passing urine more often at night
- Being tired or fatigued
- Loss of weight
- Increase in appetite
- Slow healing of wounds
- Blurred vision
- Dry and itchy skin

If you experience any of these signs or symptoms of high blood sugars you should

- Continue to take your usual medicine
- Increase the number of blood sugar tests
- See your doctor
 - If you have high blood sugar (between 15 to 20) for more than two days
 - If your blood sugar is above 20, or
 - If you feel unwell.

What is low blood sugar (glucose)?

The medical word for low blood sugar is hypoglycaemia or hypo.

Blood sugar levels should mainly be between 4 to 8 (mmol/L).

Low blood sugar is a result under 4 when you test on your blood sugar machine.

Low blood sugar can happen if people take some tablets or insulin for their diabetes.

How will I feel if I have a low blood sugar?

Your body reacts to low blood sugar levels because it needs more energy quickly. When your blood sugar level is too low you might have one or more of the following:

Early signs:

- Feeling weak, shaking or trembling,
- Feeling dizzy or light-headed
- Sweating or looking pale
- Hunger
- Fast heart beat (tachycardia)

Later signs:

- Finding it hard to concentrate
- Tingling around the lips
- Blurry vision
- Headache
- Confusion
- Acting strangely, for example sudden bad temper or crying
- Feeling very sleepy for no reason (drowsiness), you can become unconscious if not treated.

What causes low blood sugar?

The medical word for low blood sugar is hypo. Low blood sugar can happen to people who take some tablets or insulin for their diabetes. These medicines should help to keep your blood sugar levels mainly between 4 to 8 (mmol/L).

Sometimes when you change how much you eat for a meal, or are more active, the blood sugar level can get too low.

Here are some of the causes of low blood sugar and how to prevent the problem.

POSSIBLE CAUSES	PREVENTING LOW SUGARS
Not eating enough food	Regular amounts of food
Eating later or skipping a meal	Keep meals at a regular time
Drinking alcohol without food	Eat a snack if having alcohol
Taking too much insulin / tablets	Always check your dose
Extra activity or exercise	Adjust food or medicine dose
Unclear about cause	Check with your doctor

Your body will react to low blood sugar levels because it needs more energy quickly.

Read the information sheet 'What can I do about low blood sugar' so you will know what to do if this happens.

It is a good idea to talk to your family so they know what to do as well.

Speak with your doctor or diabetes specialist about low blood sugar and what to do if this happens.

What can I do about low blood sugar?

If you get symptoms of low blood sugar you need to treat the symptoms quickly. The symptoms may get worse if you do not treat them. Your body needs something with sugar (sweet) to increase your blood sugar level back to between 4 to 8 (mmol/L).

Step 1

Eat something with sugar in it. The type of sugar you choose should work quickly to increase your blood sugar level. You could try one of these:

- 3 glucose tablets
- 6 to 7 jelly beans
- 3 full teaspoons of sugar mixed in water
- Half a can of regular soft drink (not diet or sugar free)

Step 2

Re-test your blood sugar level after 10 to 15 minutes to make sure it has come up to or above 4 (mmol/L). If you still have low blood sugar symptoms or blood sugar level below 4 (mmol/L) repeat Step 1.

Step 3

If it is more than 15 minutes until your next meal, eat some food (For example, one piece of fruit or one glass of milk or one piece of bread). This will help to keep your blood sugar stable. If it is your meal time, then just eat your meal.

If you don't have a blood sugar machine, but feel like you have low blood sugar then follow the above steps.

In an emergency

If unconscious, do not give food or fluid through the mouth. If you can, put the person on their side and ring for an ambulance on **000**.

Using your medicines wisely

People with diabetes sometimes say they have too many medicines. They wonder why the doctor advises them to take so many medicines.

Diabetes often happens with other problems like high blood pressure or cholesterol.

Complications of diabetes can include stroke, heart attack or kidney disease. Treatment is needed for each of these problems to help prevent complications. This is why people with diabetes may have several different medicines.

Safety with medicines

When you take any medicine it is important to understand what you are taking and why.

When people think about medicines they usually think about prescriptions from the doctor. There are many types of medicine. Herbal remedies, vitamins and other mixtures from naturopaths are medicines. Cough mixtures, other tablets or liquids which you buy from the chemist without a prescription are also medicines.

All these medicines can affect each other. They can also have other effects on your body that you don't expect. Tell your doctor, nurse or pharmacist about all the medicines you take. This will help you avoid problems with your medicines.

You should know what each tablet or medicine is for, when to take it and the correct dose. Keep a list of your current medicines with you. Never take medicines prescribed for other people.

Speak to your doctor, nurse or pharmacist to learn more.

Tablets for diabetes

Insulin is what your body makes to keep blood sugar (glucose) levels stable. You get diabetes when your body is not making enough insulin or if the insulin does not work properly. Lack of exercise and being overweight will affect how well your insulin works.

Exercise and healthy eating may not be enough to manage your blood sugar levels. If your blood sugar levels stay high your doctor may give you tablets for type 2 diabetes.

Tablets for diabetes reduce blood sugar levels. They work in different ways to:

- Help the body make more insulin
- Help the insulin to work better in areas where the blood sugar is used, like the muscles
- Reduce the release of sugar from storage areas in the body such as the liver
- Reduce the amount

The doctor may give you more than one type of tablet. Like all medicines, tablets for diabetes may have effects that we don't expect. The most common are low blood sugar (hypo), stomach upset and skin rashes. Contact your doctor if you think you have one of these effects from your tablets or feel unwell.

If you take tablets for diabetes, you should carry some jelly beans or glucose tablets at all times. You can get glucose tablets at your chemist. Take them if you need to treat low blood sugar (For more information read 'What can I do about low blood sugar?').

Will I need injections for diabetes?

The main treatment for diabetes is healthy eating and exercise. Tablets will be given if your blood sugar stays too high. If your blood sugar is still too high on tablets then injections might be needed.

Many people have heard about injections for diabetes. After many years of diabetes some people will need to have injections to help manage blood sugar levels.

The most common medicine used for the injections is called insulin. Insulin is what your body uses to keep blood sugars in the 4 to 8 range. Your body has been producing its own insulin since you were born.

You get diabetes when your body is not making enough insulin. It can also happen if the insulin does not work properly. Tablets can help with these problems but sometimes they are not enough.

The insulin used in injections is similar to your body's own insulin. The insulin through the injection does the same job as the insulin in your body. It helps to manage the blood sugar level.

Giving insulin injections is simple. They are usually done once or twice a day.

The doctor or a diabetes educator or nurse can teach you how to give the injections.

They will help you understand about diabetes and insulin and how to look after yourself. They will teach you to look after the equipment.

Another type of injection for diabetes (exenatide) might be recommended by your doctor. This injection is usually given twice a day or weekly. You will need some education and your doctor or nurse will help.

What should I know about insulin injections?

This is a list of important points to know about insulin injections. Your doctor, diabetes educator or nurse will teach you how to give injections.

If you don't understand something, ask for more information.

1. Insulin injection

- How long will the insulin work for?
- When is it working at its strongest level?
- Do you have the correct type of insulin?
- What is the right insulin dose?
- Check the expiry date before each injection.

2. Equipment

- Do a safety check. You will be shown how to do this.
- Follow the instructions to prepare the injection.
- Dispose of needles into a sharps container.
- Have enough supplies of insulin and needles. Don't run out over weekends or holidays.

3. Check when to have the injection and when to eat

- Some insulin injections are given before a meal because they work quickly. Other insulin has a slower effect on blood sugar (glucose) level.

4. Change the place where you give the injection

- Ask where to do the injection and how to rotate the place where you give the injection
- Move the spot where you inject a little every time to let the skin heal.
- Know what to do if you get a bruise or lump under the skin.

5. Know the correct way to store your insulin

- Keep the insulin you are using at room temperature.
- Store the insulin you are not using on the middle shelves of your fridge.
- Do not store insulin in the freezer, the back of the fridge or fridge door.

What are diabetes complications?

Sometimes you will hear your friends, family and others talk about diabetes and the problems it can cause for your health. The medical word for these problems is complications.

Prevention or early treatment of complications will help you to keep healthy. The best thing to prevent complications is look after your diabetes and get help if you are finding this difficult.

Complications can be chronic and long term. These types of complications are due to damage to the blood vessels and nerves in different areas of the body. The damage can be caused by high blood sugar (glucose) levels over time. The main body areas that can be damaged are: eyes, kidneys, nerves, legs, heart and brain.

Diabetes complications can lead to heart attack, stroke, loss of eyesight, foot ulcers and other serious problems. Men can sometimes experience sexual problems from damage to the nerves and blood vessels.

There are several information sheets that explain about diabetes complications and how to prevent them. If complications from diabetes are already there, it is possible to slow down the changes. There are treatments to help stop the complications getting worse.

Help is available, so talk to your doctor or health care worker if you have any questions or concerns.

How can I reduce the risk of complications?

To reduce the risk of complications caused by diabetes, you can:

- Visit your doctor regularly for a check up to find any problems early
- Do some regular exercise – at least 30 minutes per day
- Eat in moderation. Avoid foods that are high in sugar and fat
- Talk to your health care worker about what body weight is healthy for you
- Check your blood sugar (glucose). Talk to your health care worker about how often to check
- Take your medicines as prescribed. Talk to your doctor or diabetes specialist about any problems with medicines
- Get help to stop smoking. Smoking will make complications worse
- Have your blood pressure checked every 3 months
- Have your cholesterol checked every 6 to 12 months
- Have your eyes checked once a year or more often if needed
- Take care of your feet. Wash and dry them every day. Check them every day and treat any sore or infection quickly.

Your doctor or other health care worker can assist if you have any questions or problems.

Looking after yourself when sick

Common illnesses or infections can cause blood sugar levels to go up or down. You need a plan for days when you are sick. You will need to discuss this with your doctor, or diabetes specialist.

1. Tell someone

If you are alone, tell someone you are unwell so they can check on you.

If your carer is unable to help you, ask them to call your doctor for advice.

2. Blood sugar testing

You need to test every 2 to 4 hours. Test if you are worried about your blood sugar level. If you have a low blood sugar (below 4) you should treat it quickly. Read the information sheets on low blood sugar.

3. Medicines

Keep taking your diabetes tablets or insulin when you are unwell. If you cannot take your medicines, contact your doctor.

4. Insulin

If you use insulin, you may need extra insulin when you are sick. Consult with your doctor or diabetes educator. Check your plan to know what to do when you are sick.

5. Instructions for food and fluids

It is important to drink more fluids to stop you getting dehydrated. You may need to eat different food or snacks if you feel sick. Read the information sheet 'What to eat and drink when you are sick' to see what is best for you.

6. When you must contact the doctor or hospital

- If your blood sugar is more than 15 (mmol/L) for 24 hours
- If you are drowsy or confused
- If you have bad pains in the stomach (abdomen)
- If you are vomiting for more than 4 hours
- If your blood sugar stays too low (below 4)
- If you feel too sick to stay at home

What to eat and drink when you are sick

If you are unable to eat your usual meals try to eat small amounts of light foods or drinks instead.

Suggested light foods and drinks:

- Fruit juice – ½ to 1 glass
- Soft drink or Ginger ale – 1 glass of normal (sweet) not diet
- Milk and biscuits – ½ glass of milk, and two biscuits
- Ice cream – 4 level tablespoons (or 2 scoops)
- Creamy rice – ½ cup of cooked creamy rice (made with milk)
- Chicken and pasta soup
- Crackers (For example, Sao or Ryvita or Salada)
- Dry toast (no butter)
- Flavoured Jelly (not diet)
- Gastrolyte sachets (ask your pharmacist)

These will keep your blood sugar (glucose) from getting too low if you can't eat.

Important: If your blood sugar level is more than 15 (mmol/L)

Drink fluids without added sugar every hour (half a cup to 1 cup).

- water
- diet soft drinks or diet cordial
- tea or coffee
- vegetable juice
- soup or clear broth

Sick day plan

Date: _____

1. Contact details	1. 2. Doctor: Diabetes Educator: Call ambulance 000 if an emergency
2. Testing of blood sugar (glucose)	
3. Diabetes medicines	
4. Insulin	
5. What to eat or drink	
6. When you must contact the doctor or hospital	
Other:	

What to do for emergencies

Be ready for any problems with your health. Talk to your doctor about what to do if you are sick. Find out what to do if your blood sugar level is too low or very high. Ask the doctor what to do if you have chest pain.

If the blood sugar (glucose) is low, less than 4, eat some glucose or sugar immediately. Check that the blood sugar is increasing to normal (4 to 8). Very low blood sugars can make you pass out (become unconscious).

Very high blood sugars that continue over time need treatment. You may become dehydrated, pass lots of urine and be very thirsty. If untreated you might become confused or pass out (unconscious).

See your doctor if:

- You have high blood sugar (between 15 to 20) for more than two days.
- Your blood sugar is more than 20 or the blood sugar machine (meter) indicates 'HI'.

What if I can't contact my doctor?

Diabetes Emergency Advice is available from your local hospital. Write the number for the hospital below. Keep the number close to your phone.

Emergencies – How to help

If you have chest pains ring **000 for the Ambulance**.

If someone is unconscious DO NOT GIVE ANYTHING BY MOUTH.

Lay them on their side to help breathing. Ring **000 for the Ambulance**

Local Doctor	
Local Hospital	
Diabetes Educator	
Ambulance	000

Driving and diabetes (1)

You can continue to hold a driver's license or learner's permit as long as your diabetes is at the right target for you. Speak to your doctor or diabetes specialist about the right target for your blood sugar (glucose) level.

What are the risks if your blood sugar level is not at target?

The medical word for low blood sugar is hypoglycaemia or hypo. Low blood sugar is the main risk for people who take diabetes medication. You can not drive safely if your blood sugar is low. It will put you and others on the road at risk. Please read the information sheet 'What can I do about low blood sugar?' for more details on how to prevent and treat this problem.

How to prevent low blood sugar problems when driving?

- Always check your blood sugar level before you drive.
- Remember 'You can drive if your reading is above 5'.
- Take your blood sugar machine (blood glucose meter) with you when you drive.
- Check your blood sugar every 2 hours.
- Carry a sweet snack (for example jelly beans or a non-diet soft drink). You will then be ready to treat your low blood sugar straight away.

If you feel your blood sugar is low, stop your car as soon as it is safe to do so. Check your blood sugar levels straight away. If your blood sugar level is less than 5 you must treat it.

Do not drive until you have treated your blood sugar level. Check your blood sugar again. When it is above 5, wait at least 30 minutes before you drive again.

Driving and diabetes (2)

Health conditions that may affect your driving

- High blood sugar (glucose) levels – Blood sugar levels more than 10 can make you feel tired and weak. You may have blurry eyesight.
- Eyes – Problems with your eyesight may affect your safety when you drive. Get your eyes checked every 12 months. Get your eyes checked if you notice a change in your vision.
- Feet – Get a podiatrist to check your feet every 12 months. See your doctor or podiatrist if you have sore or numb feet.
- Heart disease – Heart disease is more common in diabetes. Talk to your doctor or specialist about driving if you have a heart problem.
- Problems with sleeping – Lack of sleep can make you drowsy during the day. If you are sleepy do not drive. ‘Sleep apnoea’ is a medical condition where you snore heavily and may stop breathing in your sleep, for short times. This condition can be treated. Speak with your doctor.
- Surgical or medical procedures – See your doctor to make sure you are safe to drive after surgery.

Know the driving rules

There are driving rules to protect your safety and the safety of the community. Notify your local driving authority (for example, Vic Roads) that you have diabetes. You may need to provide them with a doctor’s report about your diabetes. Each State or Territory of Australia has different rules about diabetes and driving.

It is advised that you tell your car insurance company about your diabetes.

If you don’t you may have problems with your insurance claims.

Driving and diabetes (3)

Driving checklist

1. I have checked my blood sugar (glucose) level and it is 5 or more.
2. I have my blood sugar machine (blood glucose meter) with me when I drive.
3. I check my blood sugar every 2 hours when I am driving.
4. I carry a sweet snack or drink when I drive in case I have low blood sugar.
5. I do not drive when I feel tired or drowsy.
6. I see my doctor or diabetes specialist regularly.
7. I have had my eyes checked in the last 12 months.
8. I have had my feet checked in the last 12 months.
9. I carry identification that says I have diabetes.
10. I have told my driver licence authority that I have diabetes.

Travel and diabetes

If you have diabetes it is important to plan your travel. If you take insulin for your diabetes, you will have a little more to do. Good planning will help you avoid problems while travelling. A good way to plan your travel is to write a list of things to take.

Your list should include all of the medicine and equipment you use to look after your diabetes. You should also think about taking extra supplies. This is so you have everything you need in case some of your supplies are lost or damaged.

Always carry at least two sets of your supplies. Keep one set in your hand luggage and the other with your travel partner. If you are travelling alone check with the airline if it is ok to put supplies in your luggage.

There are many other things to consider when you plan to travel. Some examples are:

- Airline regulations
- Different time zones
- Different activities while travelling
- Different foods you will be eating
- Travel vaccinations required

Carrying some form of identification and contact details of your family

When you travel you must also get a letter from your doctor that states you have diabetes, and:

- The medications you take
- The equipment you need for the diabetes. For example, needles, insulin pen, blood sugar machine (meter).

You must carry this letter so you can get through airport security. If you are travelling overseas, see your doctor two months before so you have enough time to plan.

How to contact us:

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