

staying well with type 2 diabetes



diabetes
new zealand

Contents

PAGE



3	What is type 2 diabetes?
4	Live well with type 2 diabetes
5	Symptoms
6	Reaching and maintaining a healthy weight
7	Healthy food choices
8	Managing type 2 diabetes
10	How to treat a hypo
11	Physical activity
12	Smoking
12	Blood pressure
12	Sick days
13	Diabetes and driving
14	Managing the control of your diabetes
15	Medication
15	Insulin
16	Preventing complications
16	Heart disease and stroke
17	Eyes
17	Kidneys
18	Feet
19	Footcare tips
20	Sexual function
20	Teeth
20	Other complications
21	Depression
22	Your healthcare team
23	Staying well with type 2 diabetes

This pamphlet provides some basic guidelines and information for people with type 2 diabetes. It is not designed to replace information given to you by your doctor or other health professional.

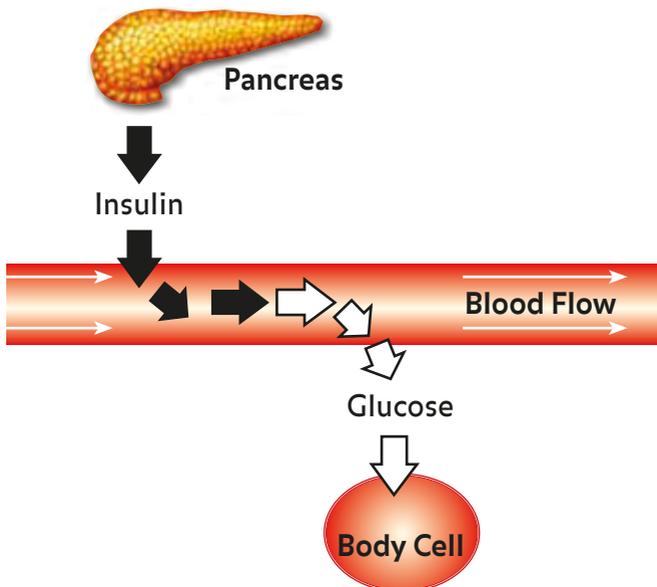
What is type 2 diabetes?

Type 2 diabetes is when there is too much glucose (sugar) in your blood. Glucose in the blood comes from the foods you eat such as: carbohydrate foods (starchy foods), and sweet foods and drinks. You need to have some glucose in your blood, but it has to be at a healthy level and not too high. High glucose levels can damage your body over time.

Insulin is a hormone produced by the pancreas. Diabetes results from not producing enough insulin to keep blood glucose levels in the normal range. This happens because your body can't make enough insulin or because your body has become insensitive to insulin and the pancreas can't make extra to compensate. Putting weight on around your middle can reduce insulin sensitivity. Your body needs insulin to convert food into energy.

Insulin has two jobs in the body:

1. Move the glucose from the blood into fat and muscle cells.
2. Stop the liver making glucose when the level of glucose in the blood is high enough.



Live well with type 2 diabetes

Learning to live well with type 2 diabetes begins with you recognising what you can do to feel better and stay healthy. You are in control of the daily management of your diabetes. You make the decisions that will affect your health, such as choosing what and how much to eat, and making sure you take your medication and keep your medical appointments.

Finding out you have diabetes can be upsetting. You may experience many different emotions, and feel anxious, sad or angry about developing diabetes. Learning to manage your diabetes starts with knowing what you can do to feel better and stay healthy.

Staying well with type 2 diabetes means creating a good balance between the management of your diabetes and the many demands of life. Diabetes New Zealand can provide support and information. For medical advice and support, do talk to your healthcare team.

Your life can be fun, full and healthy. Managing your diabetes is about making good lifestyle choices and recognising there are things you can control.



Symptoms

You may have had diabetes for many years without realising it. Not everyone has symptoms.

Symptoms may include:

- Feeling tired and lacking energy.
- Feeling thirsty.
- Going to the toilet often.
- Getting infections frequently.
- Getting infections which are hard to heal.
- Poor eyesight or blurred vision.
- Often feeling hungry.

The symptoms get better when your diabetes is better controlled.

Is my family at risk of getting diabetes?

Your family should visit the doctor to discuss this, especially if they have any of the symptoms. It is important they get checked if they are:

- Overweight.
- 40 years of age or older (the risk increases with age).
- Maori, Pacific Island, Indian or Asian and 30 years of age or older.

Or if they have ever had:

- Diabetes during pregnancy (gestational diabetes).
- High blood pressure and/or raised cholesterol levels.
- A heart attack or stroke.

Reaching and maintaining a healthy weight

Your blood glucose levels are affected by the amount and type of carbohydrate you eat or drink. Carbohydrate is found in starchy food and sugar. Extra fat around your tummy also makes your diabetes harder to control.

Losing weight is important for most people with type 2 diabetes. Even losing 5–10% of your weight can make a huge difference.

To lose weight you need to:

- **Make healthy food choices**
- **Eat less food**
- **Do at least 30 minutes of physical activity a day**

Ask family and friends for support. You may also find a support group useful. Ask your doctor or local Diabetes New Zealand Branch if there is a group in your local area.



Healthy food choices

People with diabetes do not need to buy special food or cook separate meals. The whole family can eat the same healthy food.

Simple changes to your diet will help. Make these changes part of your everyday life.

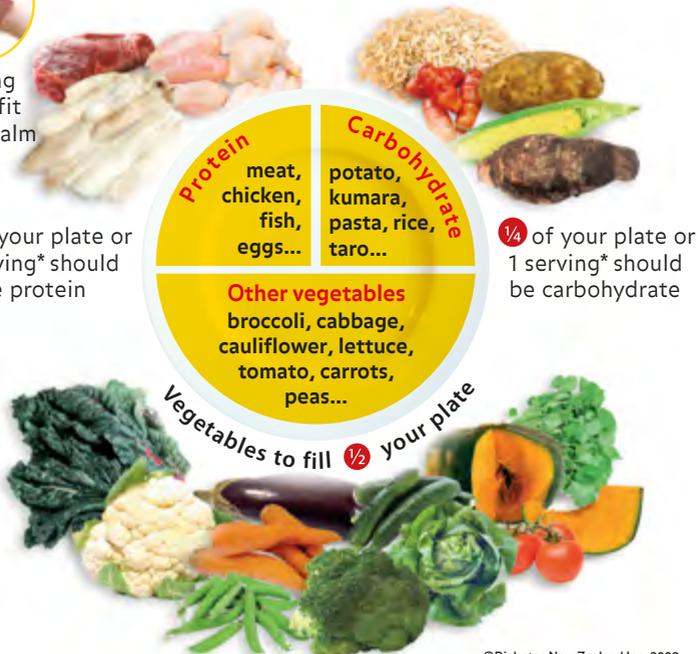
- Drink plenty of water. Avoid drinking fruit juice and other sweet drinks.
- Eat breakfast, lunch and dinner every day.
- Eat some carbohydrate food at each meal, but not too much.
- Choose food low in sugar, saturated fat and calories or kilojoules.
- Base your meals around the Diabetes New Zealand Healthy Plate model.



1 serving should fit in the palm of your hand

$\frac{1}{4}$ of your plate or 1 serving* should be protein

Diabetes New Zealand Healthy Plate



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For an ideal eating plan, talk to a New Zealand registered dietitian.

See the Diabetes New Zealand pamphlet *Diabetes and Health Food Choices* or visit the Diabetes New Zealand website www.diabetes.org.nz for more information.

Managing type 2 diabetes

Controlling your blood glucose, blood pressure, cholesterol levels and body weight will help reduce the risk of diabetes complications to many parts of your body, including your eyes, kidneys, nerves, heart, feet and teeth. This can be hard work but it is worthwhile.

Learn as much as you can about your diabetes. Tell your family and friends, and ask for their support.

It is important that you:

- Keep appointments with your healthcare team.
- Eat healthy foods.
- Do regular physical activity each day.
- Lose weight if you are overweight and keep weight as low as possible.
- Don't smoke.

A healthy lifestyle and regular check ups are the cornerstones for good diabetes control.

Hyperglycaemia is when your blood glucose levels are too high.

What are the warning signs?

Feeling thirsty
Needing to pass urine often
Tiredness, loss of energy
Getting infections
Blurred eyesight
Dry mouth

What causes high blood glucose levels?

Eating too much food
Eating the wrong type of food
Not getting enough physical activity
Not taking your medication
Sickness
Emotional stress
Your medication needs adjusting

Beware

You may not have any symptoms if your blood glucose has risen slowly over time. Your body can get used to having high blood glucose levels but this can result in long-term complications, such as eye, kidney and nerve damage.

Managing type 2 diabetes

Blood glucose levels

TESTING STRIP	13		
	12		
	11		Too High – Hyperglycaemia (“Hyper”)
	10		
	9		
	8		
	7		Just Right
	6		
	5		
	4		
	3		Too Low – Hypoglycaemia (“Hypo”)
	2		

Hypoglycaemia (hypo) is when your blood glucose level is too low. Most people with Type 2 diabetes are at low risk of having a hypo, but it can occur, especially with people taking insulin.

Ask your doctor or nurse if you are at risk of having a hypo. Hypos can occur suddenly – make sure people around you know what to do.

What are the warning signs?

- Feeling hungry
- Feeling light-headed or dizzy
- Sweaty skin
- Blurred eyesight
- Confused, anxious or irritable
- Headache
- Trembling or weak hands and knees
- Pins and needles around the lips and tongue
- Thumping heart

What causes low blood glucose levels?

- Missing a meal or snack
- Not eating enough carbohydrate
- More physical activity than usual
- Taking too many diabetes pills or too much insulin
- Drinking too much alcohol

Treat immediately See over the page for how to fix a hypo.

How to treat a hypo

If possible, check your blood glucose on your meter. It may be something else making you feel unwell.

If in doubt, or if you are feeling very unwell, treat your low blood glucose anyway. Remember, 'if in doubt, treat'.

STEP ONE

Eat or drink one serving of a quick-acting carbohydrate. Choose one serving from the list opposite.

STEP TWO

After 10 minutes, test your blood glucose level again. If it is still less than 4mmol/L eat another serving of quick-acting carbohydrate.

STEP THREE

Once your blood sugar is above 4mmol/L, follow up with more substantial carbohydrate food.

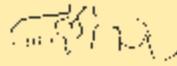
If it is your mealtime, eat your meal.

Otherwise have a snack such as:

- 1 glass (250ml) of low fat milk,
- 1 medium raw fruit
- 1 small tub of low fat, 'diet' yoghurt
- 3-4 crackers
- 1 slice of wholegrain bread as a small sandwich.

Quick-acting carbohydrate

4-5 Dextro Energy tablets



4-5 Glucotabs



7-8 jelly beans



3 teaspoons of glucose powder or sugar in water



A small glass of fruit juice or sugar-sweetened soft drink, not diet (100-150mls)



3 teaspoons of honey or jam



Make sure your family and friends know the signs of a hypo and how to help you. When you have treated your hypo, ask yourself why it happened and what you need to do to stop it happening again.

**You should not have any more than a couple of hypos a week.
If you can't find a cause or they keep happening, see your healthcare team.**

Physical activity

Regular physical activity helps to keep your blood glucose within a healthy range. It helps control the amount of glucose in the blood and burns excess calories and fat. It also increases the body's sensitivity to insulin. You may need to test your blood glucose levels before you exercise, and carry a quick-acting carbohydrate in case you have a hypo.

Find an activity you enjoy and do it as many times a week as you can fit in. Try walking, swimming, biking, gardening, dancing, bowling, or a team sport like netball, cricket or kilikiti. If the physical activity you can do is limited, try chair exercises and resistance exercises.

Aim for 30 minutes a day, but it doesn't have to be all at once. Break it into 10-minute bursts if that is easier for you. Use every opportunity – take the stairs instead of the lift or get off the bus one stop earlier and walk the extra distance. Even doing the vacuum cleaning is an opportunity for physical activity.

Ask your doctor for a green prescription. This is a good way to help get you started with a fun regular activity.

Regular physical activity is an important way to help you stay well.



Smoking

Smoking increases the risk of damage to your body. Quitting will also be good for your family and the other people around you, who will no longer be exposed to harmful secondhand smoke.

Think of your family, especially your grandchildren.

Call Quitline about becoming smokefree.

Phone 0800 778 778

Blood pressure

High blood pressure (sometimes called hypertension) damages the heart, kidneys, other organs and blood vessels.

It is important for people with diabetes to have good blood pressure. Aim for less than 130/80. Get yours checked regularly.

Sick days

When you're sick, it can be harder to control your diabetes. Make sure you continue to take your diabetes medication or insulin, drink plenty of fluids and check your blood glucose regularly.

Some medication, such as metformin, should not be taken if you're vomiting or have severe diarrhoea. If you are concerned, phone your healthcare team for advice.

Influenza immunisation is free for New Zealanders at high risk of complications – people aged 65 and over and anyone with long-term health conditions such as diabetes.

Diabetes and driving

If your diabetes has just been diagnosed and treatment is still being adjusted, it may not be safe for you to drive just yet. Check with your doctor.

Low blood glucose levels are dangerous for drivers with diabetes. High blood glucose levels could leave you feeling unwell or tired, and may affect your ability to drive safely. You should avoid driving while your blood glucose is outside the recommended levels.

If your diabetes is well controlled you can drive a car safely.

When driving:

- Always have meals when they are due before and during long journeys.
- Take regular short breaks from driving.
- Check your blood glucose levels regularly. If you feel that your blood glucose is low, stop driving and follow the steps on page 10. Wait until your blood glucose is above six before you start driving again.
- If you experience hypoglycaemia unawareness (hypos without warning signs), it is not safe for you to drive. You should discuss this with your healthcare team.
- Remember that changing a car tyre or pushing a car could result in low blood glucose levels. Keep some quick-acting carbohydrate in your car (see page 10).
- Have healthy snacks with you in case your meal is delayed or your journey takes longer than expected.



Managing the control of your diabetes

Blood glucose levels go up and down during the day. Your doctor or nurse may ask you to test your blood glucose yourself. This is particularly helpful for people on insulin.

Keeping a record of the results will help you to see what food, physical activity, stress and medication do to your blood glucose levels. It is a good idea to write down your food eaten or activity levels when you get high or low results so you can find a reason for the result. By looking for patterns or trends in your results you can learn to use your blood glucose levels to make changes to your diabetes management plan.

A useful practice to assess the effect of food on your blood glucose levels is to test before you eat a meal and then again two hours after.

Ask yourself:

Am I regularly too high or too low at a certain time of the day?

Your healthcare team will show you everything you need to know about checking your blood glucose. They will give you a record book to record your results in and show you the correct way to test.

Your doctor can order a special laboratory blood glucose check called an HbA1c (Glycosylated haemoglobin). This measures your blood glucose levels over the past six to eight weeks and will show how effective your current management plan is.

Remember: take your blood glucose record book when you see any health professional.

Regularly testing your blood glucose is important if you are on insulin. If you are not taking any medication, or are taking tablets for diabetes, you may not need to test very often or at all. Talk to your doctor or nurse to decide what is best for you.

Medication – pills, tablets, insulin

Your doctor will prescribe the medication you need. Your medication will not control your diabetes alone – it is still important you eat healthy foods and do regular physical activity.

Useful tips:

- Write down the names of your medications and what they do.
- Know how many tablets to take and what time of the day to take them.
- Ask about any side effects.
- Don't borrow anyone else's medication.
- If your medication makes you feel unwell, see your doctor.
- Don't wait till you run out before you get another prescription from your doctor.
- If you are forgetting to take your medication, ask your pharmacist about prepacked medication.

It is important you take all the medications prescribed by your doctor.

Insulin

If tablets don't keep your blood glucose levels within a healthy range, your doctor may consider starting you on insulin. This change in your management plan is to improve your health. It does not mean that you have failed in any way.

Type 2 diabetes is a progressive condition, which means the pancreas gets less efficient over time. Starting on insulin may seem scary, but your health will improve and you will get much better control of your diabetes.

Your healthcare team can give you help and support.



Preventing complications

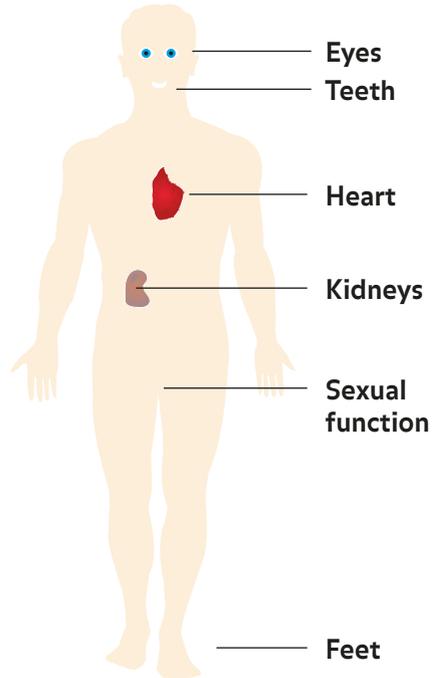
You can reduce the risks of long-term damage from diabetes by:

- Achieving and maintaining good control of your blood glucose levels.
- Controlling high blood pressure and high blood cholesterol.
- Keeping all appointments with your healthcare team.
- Reporting any concerns about your health to your doctor.
- Following a healthy lifestyle.

Your doctor or nurse will check your diabetes every year to ensure that you aren't developing complications.

Your annual check-up should include:

- Blood pressure.
- HbA1c test.
- Blood cholesterol.
- Kidneys.
- Eyes.
- Feet.



Heart disease and stroke

People with diabetes are at greater risk of having a heart attack or stroke.

You can help yourself by:

- Not smoking.
- Losing weight, if you are overweight.
- Eating healthy food.
- Keeping your blood pressure under control and getting it checked regularly.
- Taking your medication as directed by your healthcare team.
- Exercising regularly and staying physically active.

Preventing complications

**Diabetes can also affect your cholesterol levels.
Get your blood cholesterol levels checked regularly.**

Eyes

Damage to the small blood vessels in the back of the eye can cause loss of vision and lead to blindness if not treated. This may occur before you notice any change to your eyesight. Early damage can be successfully treated with laser therapy. It is important that you get your eyes checked by a specialist every two years.

You can help yourself by:

- Controlling your blood glucose levels.
- Controlling your blood pressure.
- Reporting any changes in vision to your doctor.

If you are pregnant, you may require more frequent eye examinations.

Kidneys

Diabetes may cause damage to your kidneys. Although you may not get any symptoms, damage can be detected at an early stage by your doctor. Effective treatment can prevent progression to renal failure.

Good blood pressure control and regular checks from your healthcare team are essential.

You can help yourself by:

- Managing your diabetes – take your medication, make healthy food choices, maintain a healthy weight, keep active and monitor your blood glucose level.
- Having your blood pressure checked regularly.
- Not smoking.

Preventing complications

Feet

Diabetes can lead to nerve damage and numbness. If this occurs, you must be careful to protect your feet from damage or injury. Foot care is an important daily task. Gradual loss of feeling in the feet increases the risk of damage and foot ulcers.

Diabetes can cause two main problems with the feet:

1. Nerve damage (neuropathy). This may result in the loss of feeling in your feet and can lead to foot ulcers and infections. Early signs of nerve damage include: burning sensation, pins and needles, numbness or shooting pains.
2. Blood vessel disease (peripheral vascular disease). This may result in wounds taking longer to heal and getting infected more easily. Symptoms of blood vessel damage include: feet cool to touch, calf pain during exercise, or thin or dry skin on feet and legs.

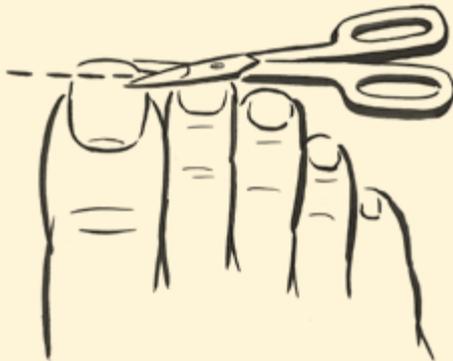
If you have numb feet, you need to check your feet and your toenails every day, and look for broken skin, cuts, cracks, blisters, redness, swelling or signs of infection. If you can't see your feet easily, put a mirror on the floor. See your doctor or nurse about any injury that isn't healing.



Preventing complications

FOOTCARE TIPS

- Wash and dry your feet carefully between the toes.
- Apply a moisturising cream to dry skin.
- Check your shoes for foreign objects before you put them on.
- Keep your toenails short and cut them straight. A correctly cut toenail has the same shape as the end of the toe.
- See a podiatrist about corns, calluses and ingrown toenails. Do not treat these yourself.
- Always wear good footwear. Shoes must fit well and be comfortable.
- Wear socks which are not too tight and avoid socks with seams that may dig into your feet.
- For people with reduced sensation, never go barefoot, even indoors.



Preventing complications

Sexual function

Diabetes can damage the blood vessels of the penis resulting in difficulty getting an erection. Women with diabetes have an increased chance of getting vaginal thrush.

Teeth

People with diabetes are more likely to have problems with their teeth and gums. Controlling your blood glucose can help prevent dental problems. Brush and floss your teeth twice a day and visit your dentist at least once a year.

Other complications

Nerve damage can cause problems such as pain in the legs, disturbance of function in the stomach and bowel, and poor bladder control. See your healthcare team if these problems occur.

Taking an active role in managing your diabetes lowers your risk of complications.

This information on complications is general and is not a complete guide. For clinical information and more details on these complications, please see your healthcare team.



Depression

Living with diabetes is a challenge and can be difficult at times. You don't have to deal with your diabetes alone. With the support of your family and friends, your healthcare team, and your community, you can take charge of your diabetes.

Explain about diabetes to your family and friends. Suggest specific ways that they can help and support you.

Feeling sad or unable to cope from time to time is normal, but if your low mood persists, it may be depression. People with diabetes are twice as likely to experience depression as those without diabetes.

Recognising and treating depression can improve your diabetes management and quality of life. If you think you might be depressed, talk to a family member or friend and to your healthcare team.

What can I do if I am depressed?

- Tell your healthcare team.
- Talk to your family and friends about how you're feeling.
- Call the depression support line on 0800 111 757.
- Join a diabetes support group, where people can talk about their diabetes and share how they deal with it.
- Eat healthy foods and keep away from alcohol.
- Have regular physical activity.
- Get help for any stress and sleep problems.



Your healthcare team

Make the most of appointments with your healthcare team. Always take your blood glucose record book and a list of questions or concerns. You may like to take a support person to your appointments.

The team is there to help you take control of your diabetes.

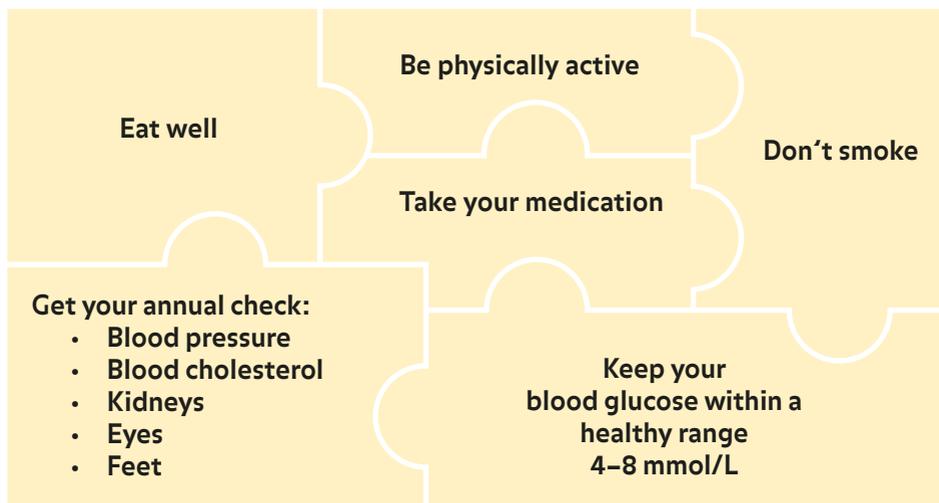
They will work with you to set goals that are right for you to help manage your diabetes.

Because diabetes affects many parts of your body and your life, you will be receiving care from a number of different health professionals. Depending on your health, your care could include the following team members:

Doctor	Name	Phone
Practice Nurse	Name	Phone
Diabetes Nurse	Name	Phone
Dietitian	Name	Phone
Podiatrist	Name	Phone
Eye specialist	Name	Phone
Dentist	Name	Phone
Diabetes NZ Local Branch	Name	Phone
Diabetes NZ Local Branch Field Officer	Name	Phone
Other	Name	Phone

Your local diabetes branch can provide support, resources and information on useful services available in your area. Phone Diabetes New Zealand on 0800 342 238.

Staying well with type 2 diabetes



Goals

	Your goal	What you can do to reach it
HbA1c		
Blood glucose		
Blood pressure		
Weight		
Keeping healthy		
Cholesterol: total HDL LDL Tryglycerides		

Staying well with type 2 diabetes is produced by Diabetes New Zealand.

To learn more about diabetes:

- talk to your doctor or practice nurse
- visit www.diabetes.org.nz
- join Diabetes New Zealand

To order *Staying well with type 2 diabetes* or any of the Diabetes New Zealand information booklets, phone 0800 DIABETES (0800 342 238), or email info@diabetes.org.nz, or Freepost Diabetes NZ, PO Box 12441, Wellington 6144.

Diabetes New Zealand is a national membership organisation. Our aim is to support people affected by diabetes and health professionals throughout New Zealand. We act for people affected by diabetes by:

- providing local support
- acting as an advocate
- raising awareness of diabetes and diabetes prevention
- educating and informing people about diabetes, its treatment, management and control
- supporting research into the treatment, prevention and cure of diabetes.

You'll find helpful information for people affected by diabetes in our pamphlets and on our website at www.diabetes.org.nz.

Take the right steps and stay healthy

Join Diabetes New Zealand

Phone 0800 DIABETES (0800 342 238)

Visit www.diabetes.org.nz

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