

# Diabetes and Strong Families



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## **Components of this resource have been adapted from the following:**

- *Aboriginal and Torres Strait Islander Nutrition and Physical Activity Brief Intervention Program*, Tropical Population Health Services (TPHS), 2008
- *Living Strong* – A healthy lifestyle program for Aboriginal and Torres Strait Islander communities, Queensland Health, 2008
- *Healthy Murries, Strong Hearts*, Third Edition 2007, Southern Area Population Health Services
- *The Aboriginal and Torres Strait Islander Guide to Healthy Eating* adapted from the Australian Guide to Healthy Eating (AGTHE) by the Department of Health and Community Services, Northern Territory
- *Diabetes Management in General Practice*, The Royal Australian College of General Practitioners and Diabetes Australia, 2008/9
- *The Canning Stock Route Challenge “Beat Type 2 diabetes”* Adapted, with permission, from the Canning Stock Route Challenge flipchart. Original concept - Stephen Vigh; artwork Red Logic Design; funding - Healthway. WACHS - Pilbara, Kimberley and Gascoyne Population Health Units.

## **Background**

*Diabetes and Strong Families* was previously known as *What is Diabetes?* A revised and renamed version was developed in 2008 following a TPHS evaluation conducted in 2007.

*Diabetes and Strong Families* is a general information book for health professionals to use with Aboriginal and Torres Strait Islander clients. It is a book that can be handed out to clients and their families.

*Diabetes and Strong Families* has been produced for general advice only. It does not take the place of regularly seeing your doctor and/or your health team for more information and regular health checks.

*Diabetes and Strong Families* will be most useful when used together with the *What to Eat* book. *What to Eat* raises the awareness of the importance of healthy eating and physical activity for people who want to be healthy, especially for people living with diabetes.

# Useful links and resources

## Queensland Health

Information is available about healthy living, including nutrition, physical activity and food safety. [www.health.qld.gov.au/healthieryou](http://www.health.qld.gov.au/healthieryou)

## Australian Resource Centre for Healthcare Innovations (ARCHI)

Website links to a range of diabetes resources.

[www.archi.net.au/e-library/service/chronic/chronic\\_resources/diabetes2](http://www.archi.net.au/e-library/service/chronic/chronic_resources/diabetes2)

## Nutrition Australia – ☎ 07 3257 4393

Contact for a range of nutrition information. [www.nutritionaustralia.org](http://www.nutritionaustralia.org)

## National Heart Foundation- ☎ 1300 362 787

Contact for brochures, catering and recipe ideas.

[www.heartfoundation.org.au](http://www.heartfoundation.org.au)

## Building a Healthy, Active Australia [www.healthyactive.gov.au](http://www.healthyactive.gov.au)

## Eat Well Be Active [www.health.qld.gov.au/eatwellbeactive](http://www.health.qld.gov.au/eatwellbeactive)

## Go for 2 and 5 [www.gofor2and5.com.au](http://www.gofor2and5.com.au)

## The Australian Guide to Healthy Eating consumer's booklet.

☎ 1800 020 103

Australian Government Department of Health and Ageing.

[www.nhmrc.gov.au/publications/synopses/dietsyn.htm](http://www.nhmrc.gov.au/publications/synopses/dietsyn.htm)

## The Canning Stock Route Challenge “Beat Type 2 diabetes” DVD

Pilbara, Kimberley and Gascoyne Population Health Units.

For copies of the DVD, contact Tropical Population Health Services  
– Townsville

☎ 07 4753 9000

## Other programs

Contact your community nutrition team or health centre for more information on healthy lifestyle programs in your local community.

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# Introduction

*Diabetes and Strong Families* has been developed to raise awareness of diabetes with a specific focus on Aboriginal and Torres Strait Islander people. *Diabetes and Strong Families* provides general information on diabetes and the importance of healthy eating and physical activity. Some of the key messages are to:

- Choose healthy food and drinks
- Be more physically active
- Avoid alcohol, drugs and smoking cigarettes
- Look after your feet
- Have your blood glucose levels checked regularly
- Have your blood pressure and blood tests checked regularly
- Have your eyes, teeth and kidneys checked regularly
- Take your medication if necessary.

If you and your family have a healthy lifestyle this will help:

- Give protection from illness
- Keep everyone strong, happy and healthy
- Maintain a healthy weight.

*Diabetes and Strong Families* can be used together with the *What to Eat* book.

**Being healthy is important for the whole family.**

## Signs and symptoms

Talk to your doctor or health professional if you have any of the following signs or symptoms:



**No energy, tired all the time**

**BLURRED  
VISION**



**Cuts, sores and rashes that heal slowly**



**Feeling thirsty more often**



**Needing to go to the toilet more often**

**Some people with diabetes may not feel any different than usual.**

# Different types of diabetes

## Type 2 diabetes

- Can occur at any age, even during childhood
- Insulin is not used properly in the muscles, liver and fat cells, or the body cannot make enough insulin.

## Type 1 diabetes

- The body no longer makes any insulin
- Is more common in children or young adults.



## Gestational diabetes

- Occurs during pregnancy
- Develops when the body doesn't use insulin properly
- Usually goes away after the baby is born
- Increases the risk of having Type 2 diabetes later in life for mum and baby.

## Pre-diabetes

- The blood glucose level is higher than normal, but not high enough to be diagnosed as diabetes
- You are at risk of getting Type 2 diabetes and heart disease
- The blood glucose level could return to normal by losing weight, getting physically active and having healthy food and drinks.



# What is Type 2 diabetes?

Type 2 diabetes is the most common form of diabetes.

People with Type 2 diabetes often have high blood pressure, high cholesterol and an apple-shaped body. An apple-shaped body is when there is too much weight around the belly.

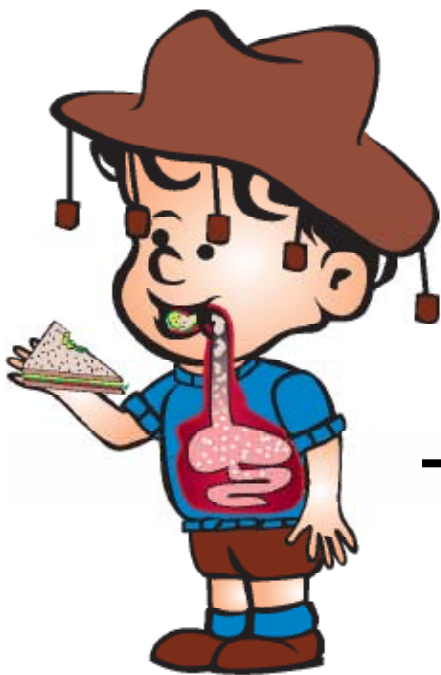


People with Type 2 diabetes make insulin, but this insulin does not work properly. This makes it hard for the blood glucose level to be normal, which means the blood glucose level will be high.

Type 2 diabetes is usually found in adults, but more children, especially those who are overweight or obese, are now developing Type 2 diabetes.



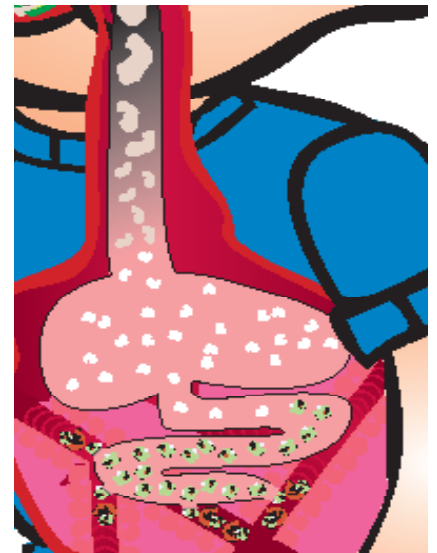
# The food journey and Type 2 diabetes



Food is broken down in the stomach into glucose.



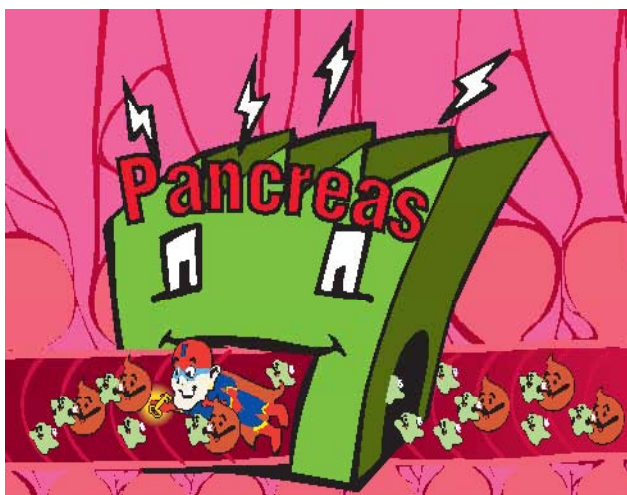
Glucose



Glucose is carried by the blood through the body.



Blood



Blood carries the glucose to the pancreas. When glucose gets to the pancreas, Insulin Man comes out to work.



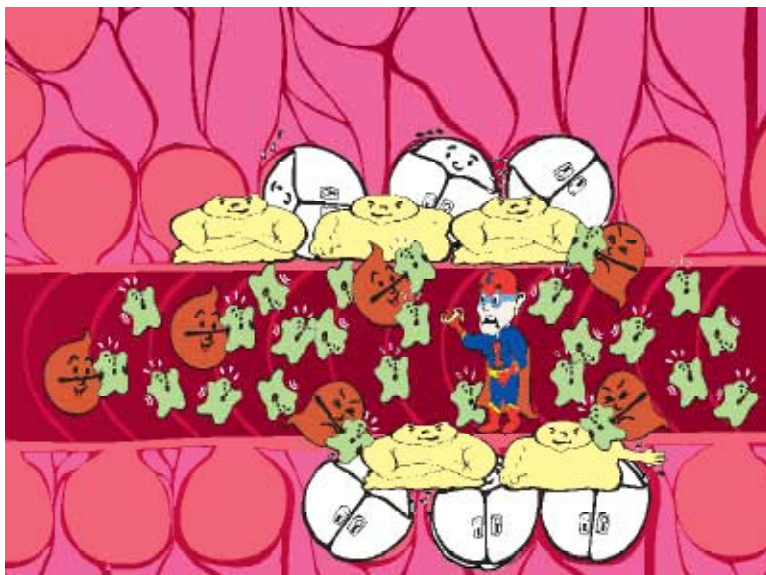
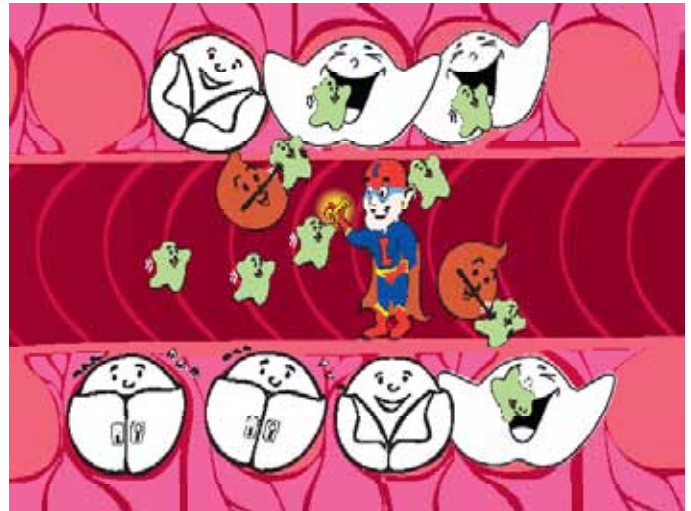
Insulin Man unlocks the cells with his key to let the glucose enter the cells. This gives the cells energy.



**Locked Cell**



**Open Cell**



With Type 2 diabetes, too many fat cells can stop Insulin Man from doing his job properly, so the glucose stays in the blood.



**Fat Cell**

The glucose in the blood starts to build up to a high level. When the glucose in the blood gets too high, it starts to damage the body.

Adapted, with permission, from the Canning Stock Route Challenge flipchart. Original concept - Stephen Vigh; artwork Red Logic Design; funding - Healthway. WACHS - Pilbara, Kimberley and Gascoyne Population Health Units.

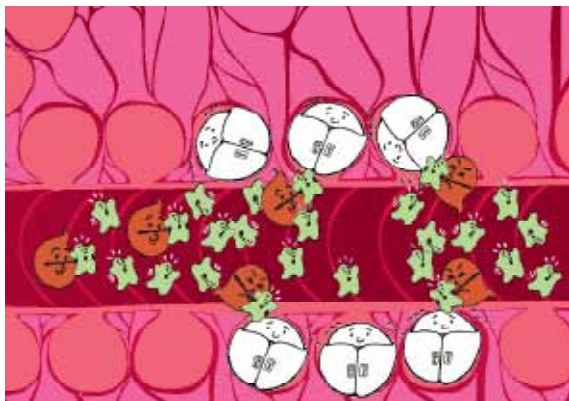
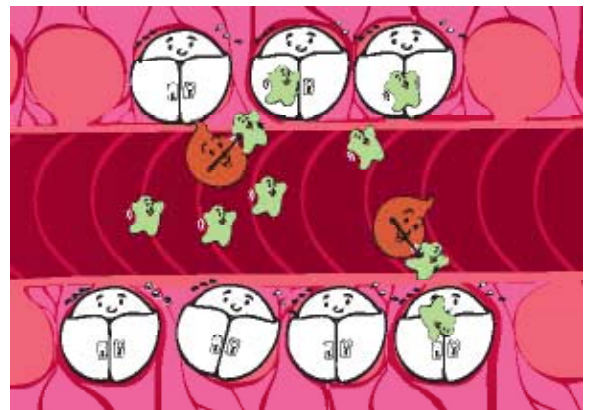
**Some people may have Type 2 diabetes for many years without knowing it.**

# What is Type 1 diabetes?



People with Type 1 diabetes need insulin injections every day. The pancreas no longer makes insulin. This means there is no Insulin Man.

Without Insulin Man and his key, the cells can't be unlocked and the glucose cannot enter the muscles and other body cells.



The start of Type 1 diabetes is usually sudden because the glucose has built up very quickly in the blood. The glucose stays in the blood and causes damage to the body.

Living with Type 1 diabetes involves:

- Insulin injections
- Regular healthy eating
- Gentle to moderate physical activity.

**Ask the doctor or health professional for more information about Type 1 diabetes.**

# Gestational diabetes

Gestational diabetes develops in some women during pregnancy.

It is important to have regular checks with the doctor if the mum is at risk of gestational diabetes.

Diabetes during pregnancy can cause problems for the mum and baby.

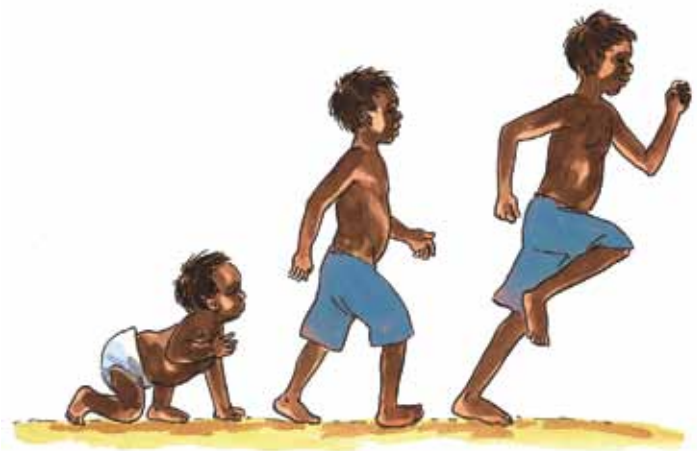


## **Gestational diabetes is more common in women who:**

- Have a family history of Type 2 diabetes
- Have had gestational diabetes during pregnancy before
- Are overweight
- Have given birth to a large baby
- Are Aboriginal or Torres Strait Islander
- Have had difficulty carrying a previous baby to full term.

**All pregnant women need to have regular check ups.**

# Gestational diabetes



Good blood glucose levels during pregnancy helps the baby to be born strong and grow into a healthy adult.

Uncontrolled blood glucose levels can make the mum feel tired, sick in the belly, dizzy, dry in the mouth and feel unwell.



Gestational diabetes can cause some babies to grow too big, which can make the baby unwell.

A mum who has Gestational diabetes when she is pregnant is more likely to develop diabetes later in life. The baby is also more likely to develop diabetes as they get older.

**It is important for mum to take care of her diabetes while she is pregnant. Healthy Mum = Healthy Baby = Healthy Adult.**

# Gestational diabetes



**Eat regularly throughout the day**



**Drink lots of water**



**Say NO to alcohol, smoking and other drugs**



**Keep active**



Breastfeeding helps to prevent baby from getting diabetes later in life.

Breastfeeding will also help the mum to stay at a healthy weight. This may help delay or stop the diabetes coming back.

# Sexual problems for women with diabetes

Some women may need to have their blood glucose levels checked more often during the menstrual cycle (periods). If they are on insulin or medication, then the doctor may need to adjust the doses at this time.



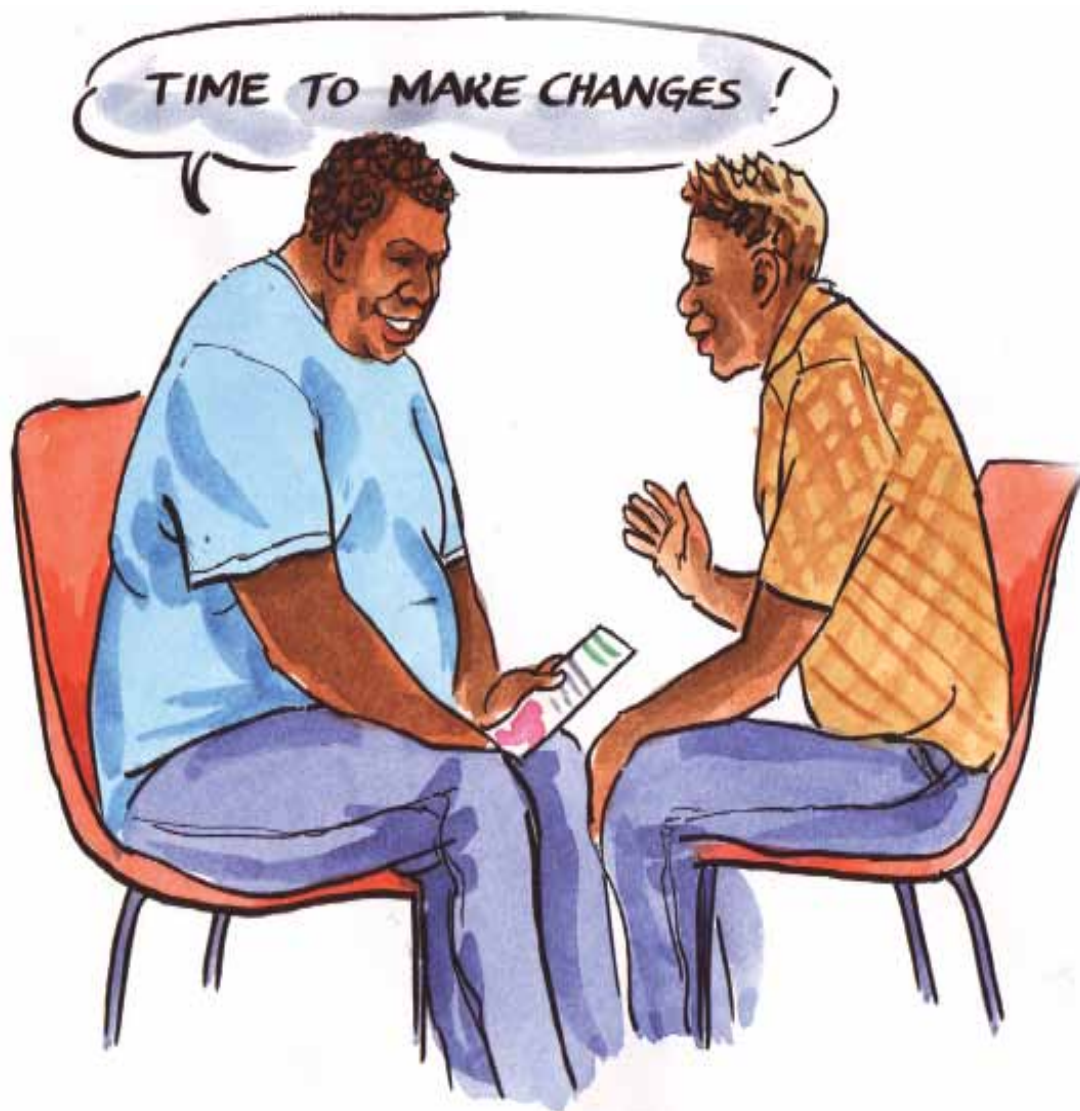
- Sometimes sexual intercourse can cause the blood glucose level to drop. Test your blood glucose level before having sexual intercourse
- Women may have problems with their arousal, sex drive (libido) and vaginal dryness, because of the nerve damage caused by diabetes
- Some women with diabetes may also be prone to thrush (candidiasis)
- If some women do have thrush, they need to make sure their partner receives treatment at the same time. These things can be sorted out at the local health service.

**Don't feel shame, talk to the doctor or health professional. They can help and will have talked with many other women who are having the same problems.**

## Sexual problems for men with diabetes

Some men with diabetes may experience sexual health problems. High blood pressure and diabetes increases the risk of blood vessel damage, which may reduce circulation to the penis.

Men need to look after themselves and their diabetes, as this will help to look after their sex drive. They should try to have something to eat just before or right after having sexual intercourse, as the physical activity of sex can cause their blood glucose level to drop.



**Don't feel shame, talk to the doctor or health professional. They can help and will have talked with many other men who are having the same problems.**

# Regular health checks

It is important to have regular check ups at the health clinic.



**Waist measurements**



**Height and weight measurements**

## **Blood glucose level (BGL) test**

This is done by a finger prick with a sharp needle to get a drop of blood. This drop of blood is placed on a test strip and put into a machine that gives a BGL reading.



**Blood pressure**

## **Blood cholesterol level**

This is a fasting blood test.



## Diabetes health checks

### HbA<sub>1c</sub>

This shows the blood glucose levels over the last three months.



### Feet will be checked for :

- Cuts or sores that don't heal and may get infected
- Numbness in the feet
- Any changes to blood flow.



**Take control don't be afraid to ask questions.**

# Keeping diabetes under control at home

It is important to check blood glucose levels at home. Talk to a health professional about the equipment needed to do this.



Some people with Type 2 diabetes need to take medication every day. These people still need to have healthy foods and drinks and be physically active.

Some people with Type 2 diabetes need to have injections every day. These people need to talk to a Diabetes Educator about when they eat, and being physically active.



**Feet checks are important to do at home every day.**

# Having a healthy body weight



Diabetes can be prevented by having a healthy body weight.

Losing weight, especially fat from around the belly, will help lower glucose levels from the blood.

Having healthy foods and drinks and being physically active will help us to stay healthy.

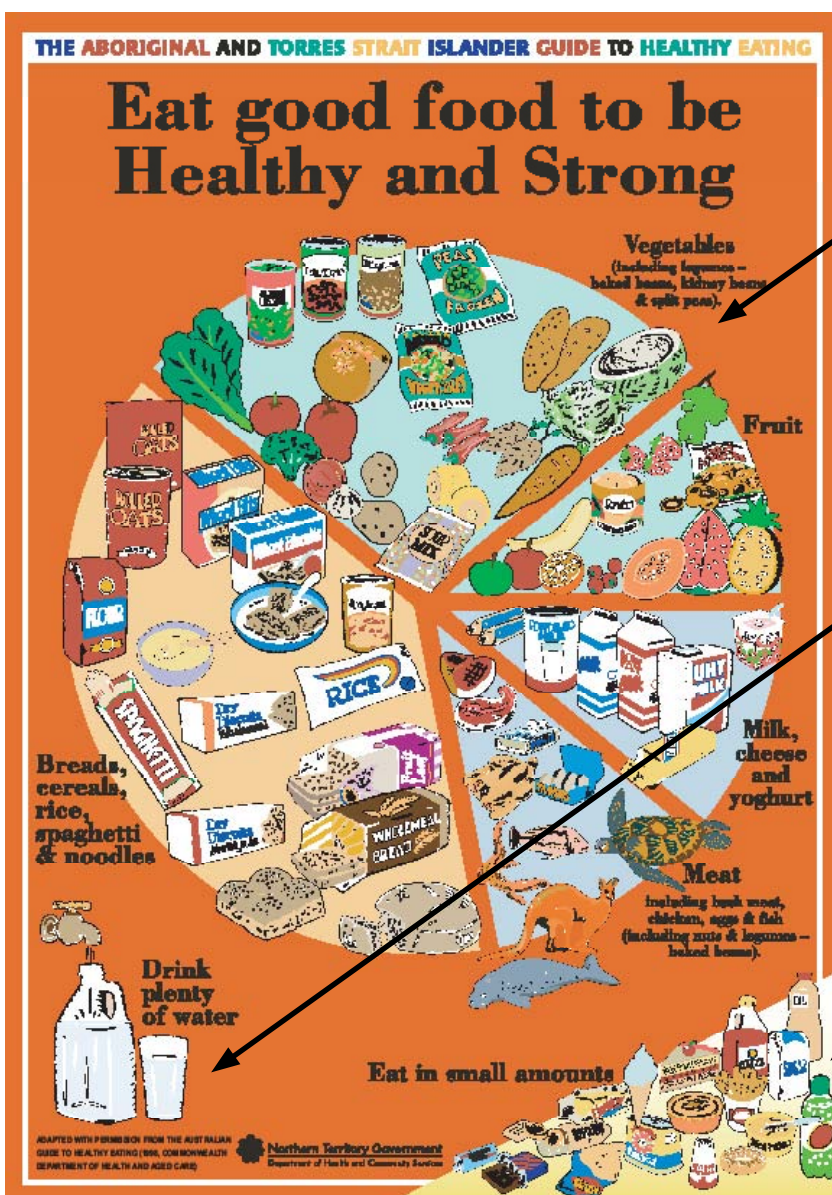


**It's important to talk to a health professional before starting any physical activity.**

# The Aboriginal and Torres Strait Islander Guide to Healthy Eating

To stay healthy and active we need to eat a wide variety of healthy foods and drinks. These can be traditional foods or foods from the store or supermarket. The Aboriginal and Torres Strait Islander Guide to Healthy Eating gives us an idea of what foods and drinks to have more or less of **over the day**.

The guide has three key messages:



### Variety

- The 'plate' shows the food we need every day from the five food groups to stay healthy.

### Water

- It's important to drink plenty of water every day.

### Extras

- Are high in fat and/or sugar and should only be eaten in small amounts.

The Aboriginal and Torres Strait Islander Guide to Healthy Eating used with permission from the Department of Health and Community Services, Northern Territory.

# Four tips to healthy eating

## 1. Drink more water



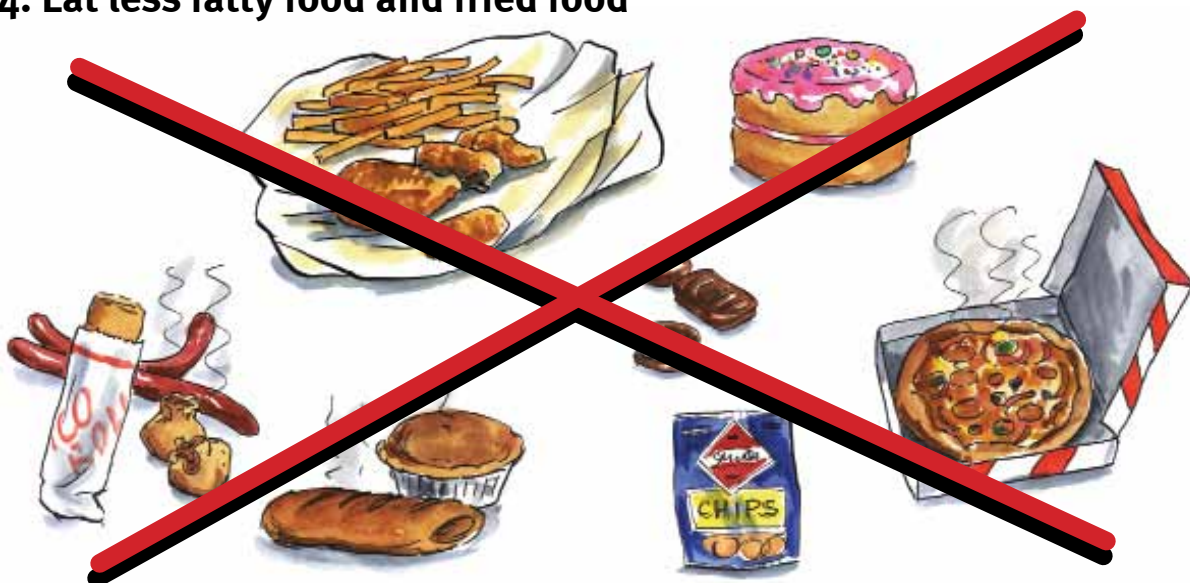
## 2. Cut out sugary drinks



## 3. Eat some vegetables and fruit everyday, including bush tucker varieties

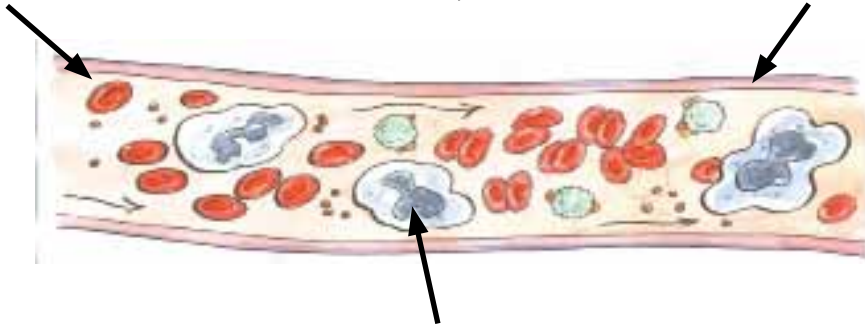


## 4. Eat less fatty food and fried food



# Looking after the heart

Blood moves around the body through the blood vessels.



It is normal to have some fats in the blood, but some people can have too much.

There are different types of fats in the blood. The bad fats that can damage the heart are:

**Cholesterol and Triglycerides**

Having these fats in the blood can lead to **blocked blood vessels**. Blood will not move through these blocked vessels easily.



Blocked blood vessels can cause heart disease and strokes.

**Having blood cholesterol and triglyceride levels checked is very important.**

# Fats in food

There are different types of fat in food. These fats are called saturated, polyunsaturated and monounsaturated.

**Saturated fat is the type of fat that raises blood cholesterol and increases the risk of heart disease.**

Saturated fats are found in foods such as:

- Deep fried takeaways
- Potato crisps and fries
- Biscuits
- Pastries
- Chocolate
- Coconut (the flesh).



**Saturated fats can harm the heart.**

**Polyunsaturated fat is a better type of fat, but should still only be used in small amounts.**

Polyunsaturated fats are found mostly in:

- Plant foods such as walnuts, brazil nuts and seeds
- Some fish such as salmon, mackerel, tuna and canned sardines
- Margarines and oils such as sunflower, safflower and soybean.



**Monounsaturated fat should also only be used in small amounts.**

Monounsaturated fats are found in:

- Margarines and oils such as canola, peanut and olive oil
- Plant foods such as avocados, peanuts, hazelnuts and almonds.



**It is important to cut back on high fat foods.**

# Shopping hints

## Healthy Shopping List

- ✓ Breakfast cereal (low fat / high fibre)
- ✓ Bread (wholemeal, wholegrain, pita, lebanese)
- ✓ Crackers / crispbread (low fat / high fibre)
- ✓ Pasta, rice, noodles (wholemeal)
- ✓ Vegetables (fresh, frozen, green leafy, yellow, orange, salad)
- ✓ Fruit (not fruit juice)
- ✓ Milk (low fat, fresh or UHT, or powdered skim)
- ✓ Yoghurt (low fat flavoured or natural)
- ✓ Ice-cream (low fat, low sugar)
- ✓ Cheese (cottage, ricotta, low fat hard cheese)
- ✓ Lean red meat, chicken, turkey
- ✓ Fish (fresh, tinned, frozen fillets)
- ✓ Beans and lentils (dried or tinned, baked beans, kidney beans, chickpeas)
- ✓ Margarine (mono or poly – unsaturated)
- ✓ Olive oil, canola oil
- ✓ Tomato based pasta sauce
- ✓ Tinned tomatoes, tomato paste
- ✓ Eggs
- ✓ Powdered coconut milk, light coconut milk



- Remember that money can be saved by not buying junk food
- Remember buying cigarettes and alcohol will leave less money to buy healthy food.

# Being physically active every day



Physical activity helps:

- To lose weight and keep it off
- To keep blood glucose levels, blood pressure and cholesterol levels under control
- The body use insulin better
- Prevent stroke and heart disease
- To keep people healthy.



**Just 30 minutes a day, or three lots of 10 minutes is all that is needed to stay healthy.**



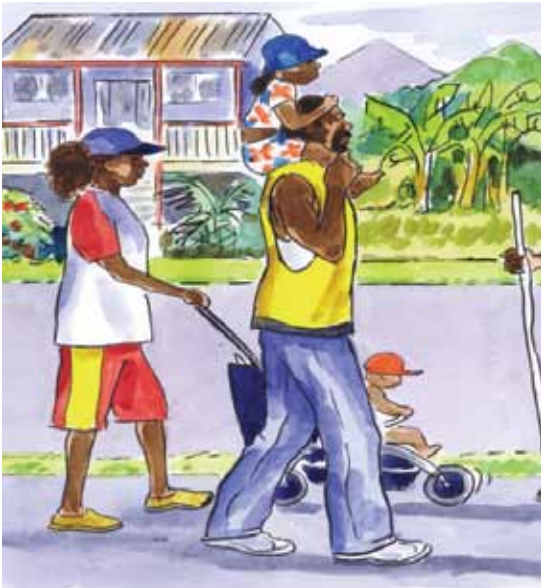
To be physically active safely:

- Start slowly (don't overdo it)
- Drink water
- Wear a hat and use sunscreen
- Wear comfortable, enclosed shoes and socks.

**Talk to a health professional before starting any physical activity.**

# Why it's good to be physically active every day

The body uses the glucose in the muscles as fuel to do things like work, play sport, walk, swim, fish or hunt.



The more physically active people are,  
the healthier they will become.



# Keeping the mind strong

Staying physically active helps to cope with stress and feel good inside.



It's important for every one to have some 'ME' time, especially those with diabetes. This can be as easy as:

- Listening to music and dancing
- Putting your feet up and rest in a quiet place
- Reading a magazine, doing a crossword puzzle
- Going for a walk
- Joining a local club.



**Talk to a local mental health professional for information on keeping a healthy mind.**

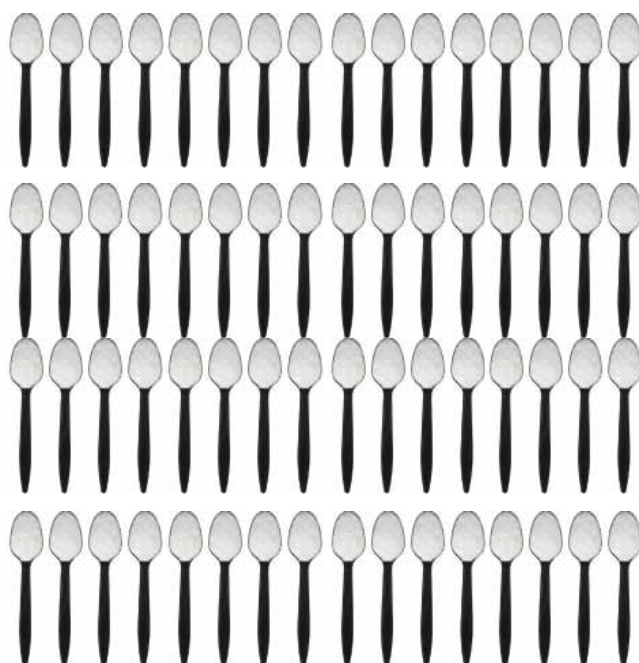
# Alcohol and diabetes

Drinking alcohol is **DANGEROUS** for diabetics, especially if taking medication. It's important to cut down or say NO to alcohol.

Alcohol is high in sugar, which can cause blood glucose levels to rise. Alcohol can also cause weight gain.



4 litre wine cooler contains **55 to 65 teaspoons of sugar**

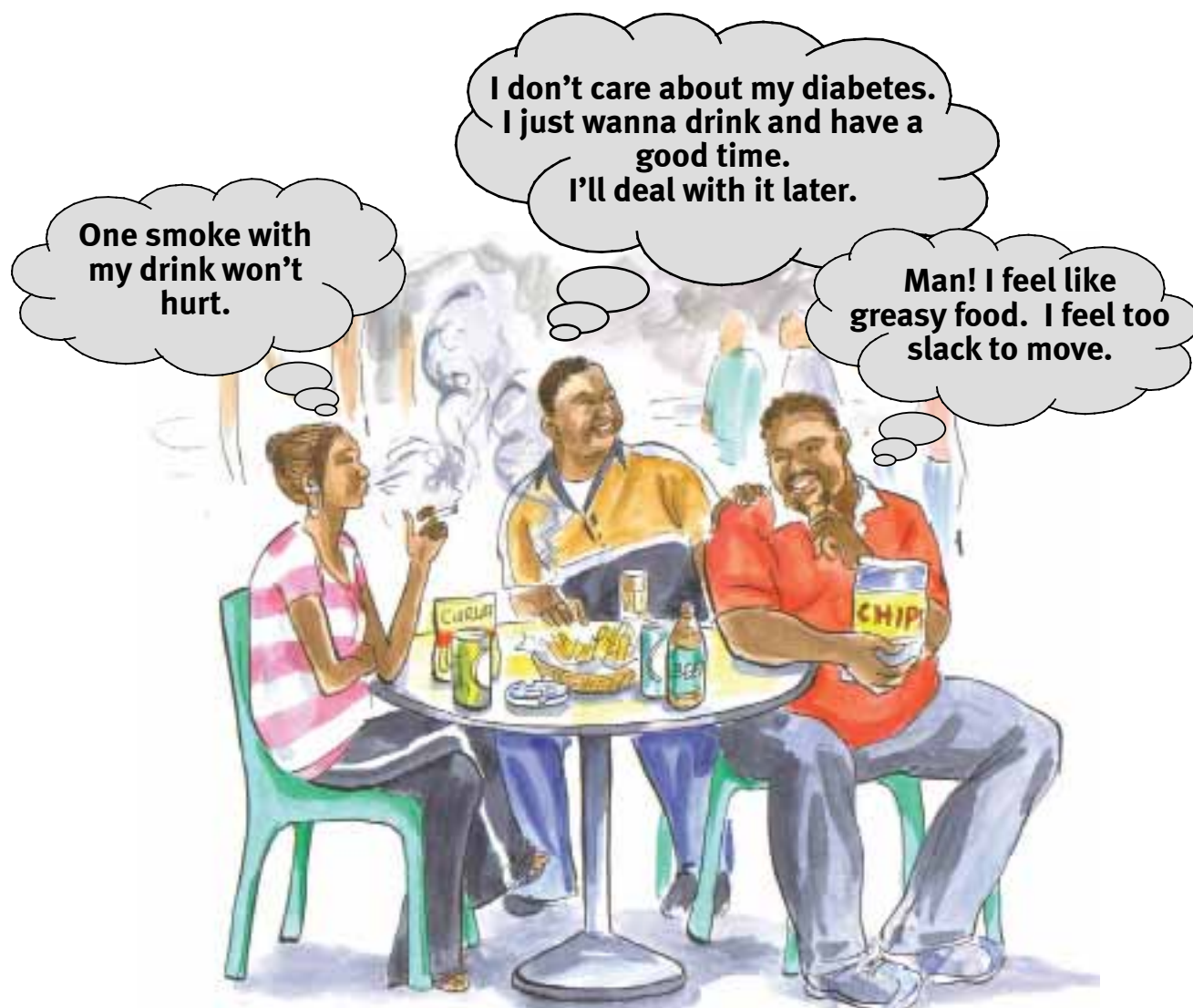


1 can (375ml) premixed alcohol and softdrink contains **7 1/2 teaspoons of sugar**



**Talk to the local ATODS (Alcohol, Tobacco and Other Drugs Service) for more information.**

## Smoking, drugs and diabetes

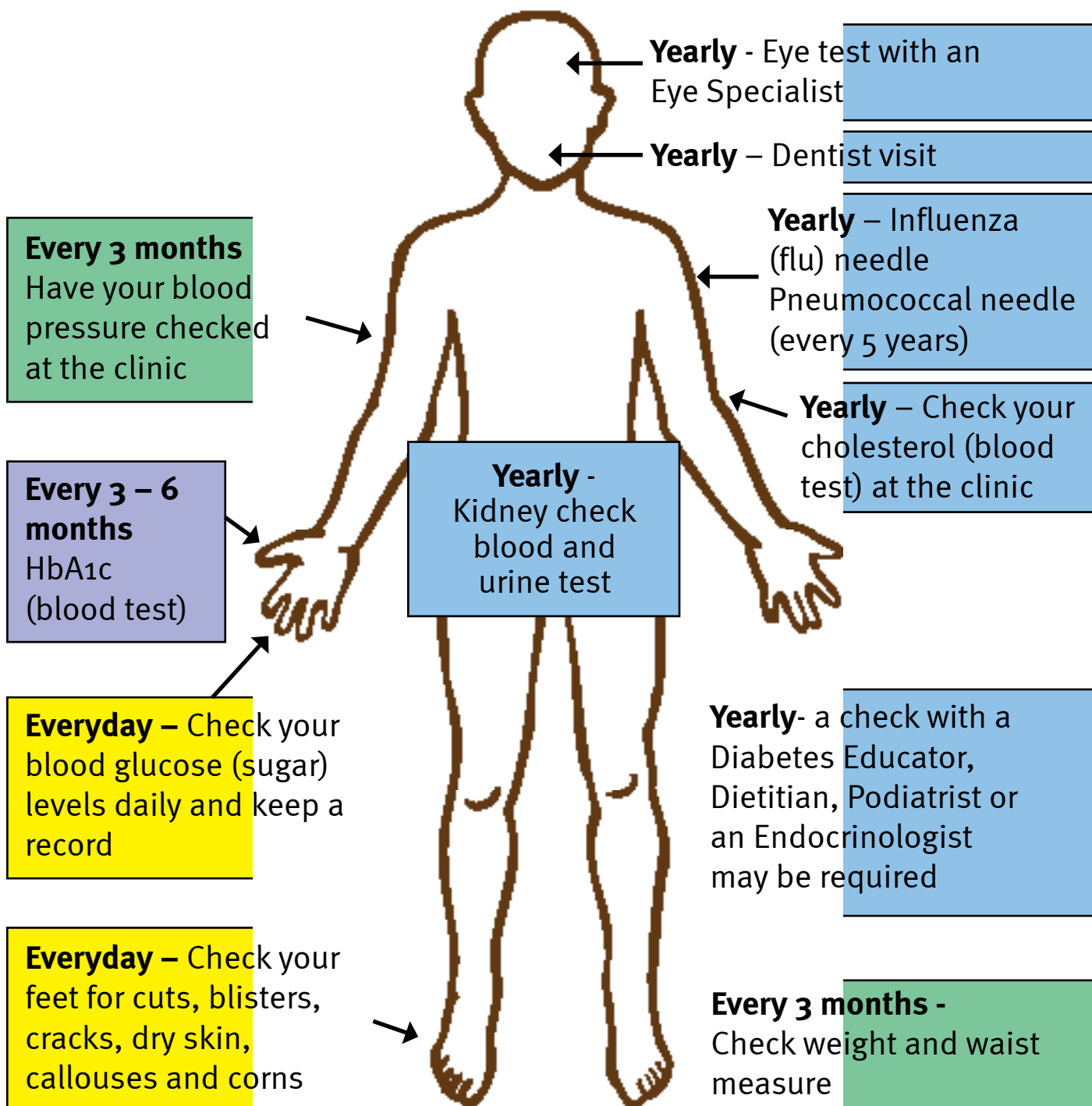


Smoking decreases blood circulation which is worse for people with diabetes. Damage can be done to the body from smoking. This is why it's important to think about giving up or cutting down.

**Talk to a health professional about stress and worry, or about how to quit smoking.**

# Diabetes check up

The doctor or health professional should arrange the following list of health checks. The doctor can also arrange a referral for the Eye Specialist, Dietitian, Diabetes Educator and Podiatrist.



**These recommendations are a guide only and should be discussed further with the doctor or health professional.**

## Goals for management of diabetes

Fasting BGL	4-6 mmol/L
HbA1c	≤ 7 %
LDL-C	⟨ 2.5 mmol/L*
Cholesterol	⟨ 4.0 mmol/L*
HDL Cholesterol	≥ 1.0 mmol/L*
Triglycerides	⟨ 2 mmol/L*
Blood Pressure	⟨ 130/80**
Body Mass Index	≤ 25kg/m <sup>2</sup>
Waist circumference	⟨ 94cm – Men ⟨ 80cm – Women
Cigarette consumption	Zero
Alcohol intake	≤ 2 standard drinks (20g)/day (men)*** ≤ 2 standard drinks (20g)/day (women)***
Physical activity	At least 30 minutes of walking (or equivalent) 5 or more days / week ( total ≥ 150 minutes / week).

\* National Heart Foundation Guidelines (2007).

\*\* NHMRC Evidence-based Guidelines for the Management of Type 2 Diabetes, 2004.

\*\*\*NHMRC, Australian Guidelines to reduce health risks from drinking alcohol, 2009.

Adaptation of these goals is derived from the Diabetes Management in General Practice 2008/9. Published each year by Diabetes Australia in conjunction with the Royal Australian College of General Practitioners.

## Are you at risk?

Please tick items that are true for you. Then show this list to the doctor or health professional.

- I have a parent, brother or sister with diabetes or who have had diabetes
- My mum had gestational diabetes
- I am overweight
- My family background is Aboriginal and/or Islander
- I have had gestational diabetes when pregnant
- I have high blood pressure
- My cholesterol levels are high or higher than normal
- I am not physically active; I do physical activity less than three times a week.

## Look for these signs:

- Feeling more thirsty than normal
- Needing to go to the toilet more often
- Always feeling hungry
- Cuts or sores that heal slowly
- Gaining weight
- Unexplained weight loss
- Having headaches all the time
- Feeling more tired or run down
- Blurred vision
- Feeling dizzy sometimes
- Bleeding gums.

