



Aboriginal
Health & Medical
Research Council
of NSW

A Practical Guide to

Chronic Conditions

—
for Aboriginal Health
Workers

Resource two of the

Living Longer Stronger Resource Kit

2nd edition

Aboriginal Health & Medical Research Council of NSW

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Note

The term 'Aboriginal' is used throughout this resource in preference to 'Aboriginal and Torres Strait Islander' in recognition that Aboriginal peoples are the original inhabitants of NSW.

This booklet is not exhaustive, and instead reflects a common list of health professionals who may or may not be referred to. 'Doctor', 'expert' and other terms listed in this booklet are often used by Aboriginal people in NSW and may not be technically correct. Each individual experiences chronic conditions differently and health professionals will tailor treatments to best suit each individual need.

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Acknowledgements

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The 2nd edition of this resource was produced by the Aboriginal Health and Medical Research Council of NSW (AH&MRC) Chronic Conditions Program and builds upon formulated ideas and input from the 1st edition's Reference Group members and other relevant organisations.

The AH&MRC would also like to thank the following organisations for their input and advice:

- + Agency for Clinical Innovation – Aboriginal Chronic Conditions Network
- + Studio Elevenses (design and layout): www.studioelevenses.com.au

1st edition July 2015

2nd edition June 2020

Why was this Kit Developed?

This booklet, *A Practical Guide to Chronic Conditions for Aboriginal Health Workers*, is the second resource of the Living Longer Stronger Resource Kit.

The two other components of the Living Longer Stronger Resource Kit include:

- + Resource One (Poster):
A Guide to Your Health Professionals
- + Resource Two (Book + Website):
A Practical Guide to Chronic Conditions – For Aboriginal Health Workers
- + Resource Three (Pamphlets):
Health Professionals

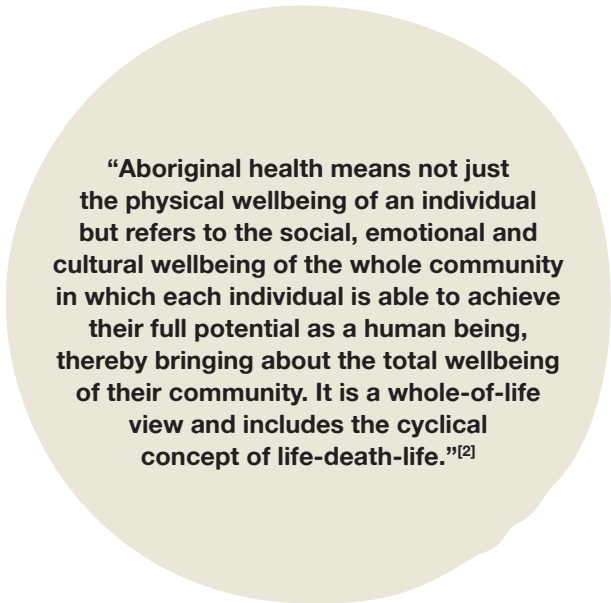
The Living Longer Stronger Resource Kit was developed to meet health professionals' need for a resource that:

- 1 considered chronic conditions holistically
- 2 was practical
- 3 was culturally acceptable within Aboriginal communities
- 4 acknowledged the unique role of the Aboriginal Health Workers (AHWs)^[1]
- 5 provided information using minimal medical jargon, and
- 6 could be used to discuss with patients the importance of seeing a range of health professionals and attending appointments.

The development of the Living Longer Stronger Resource Kit was guided by a reference group of AHWs and Nurses working in Aboriginal Community Controlled Health Services (ACCHSs) in NSW along with Aboriginal Health and Medical Research Council (AH&MRC) staff. Input and feedback were received from a range of government and non-government health organisations, other ACCHSs not involved in the Reference Group, and community members.

In the development phase of the Living Longer Stronger Resource Kit the need to focus on more than one chronic condition was identified, as was the need to include information on how one chronic condition may affect another (co-morbidities). Five chronic conditions have been included in the Living Longer Stronger Resource Kit as they are common chronic conditions that affect Aboriginal people.

Professionals working in areas focusing on social and emotional wellbeing were included in the Living Longer Stronger Resource Kit and the importance of family in the care for chronic conditions is highlighted, acknowledging health in the context of Aboriginal health:



“Aboriginal health means not just the physical wellbeing of an individual but refers to the social, emotional and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being, thereby bringing about the total wellbeing of their community. It is a whole-of-life view and includes the cyclical concept of life-death-life.”^[2]

What Difference Will This Kit Make?

Resource One

The poster, *A Guide to Your Health Professionals*, will help identify appropriate health professionals a patient may need to see according to their chronic conditions. It may also assist a patient to take a lead in their health and ask questions about which other health professionals may be able to support them in managing their chronic condition.

Resource Two

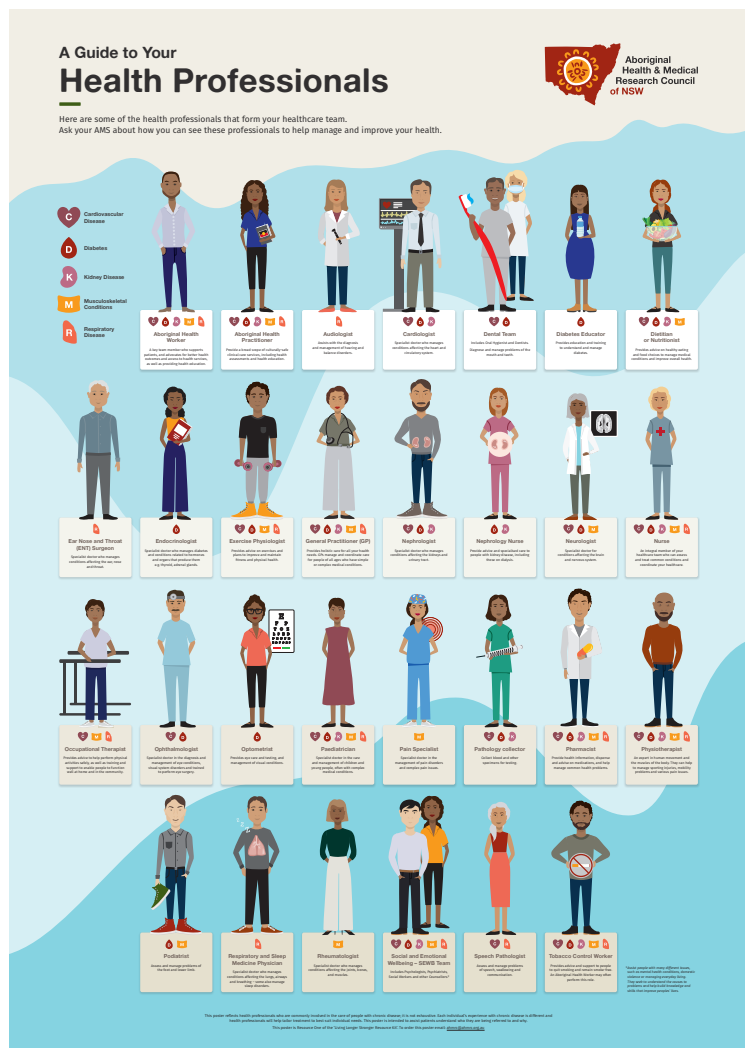
This booklet, *A Practical Guide to Chronic Conditions for Aboriginal Health Workers*, was developed for Aboriginal Health Workers (AHWs) in Aboriginal Community Controlled Health Services (ACCHSS) in NSW. In NSW, AHWs provide holistic health care to Aboriginal and non-Aboriginal people, in both clinical and non-clinical settings, based on their personal attributes, skills, education, experience and qualifications. They are multiskilled and can assist with clinical assessments, medical administration, record keeping, planning and developing programs, all while providing personalised culturally appropriate support, and much more. Refer to the Glossary section on page 47 for a more comprehensive definition of an Aboriginal Health Worker.

The information in this booklet is formatted to assist AHWs in defining:

- + relevant chronic conditions
- + why, what and how often tests are to be completed for each condition
- + identifying the range of health professionals that patients may be referred to, and
- + examples of positive messages to give to patients.

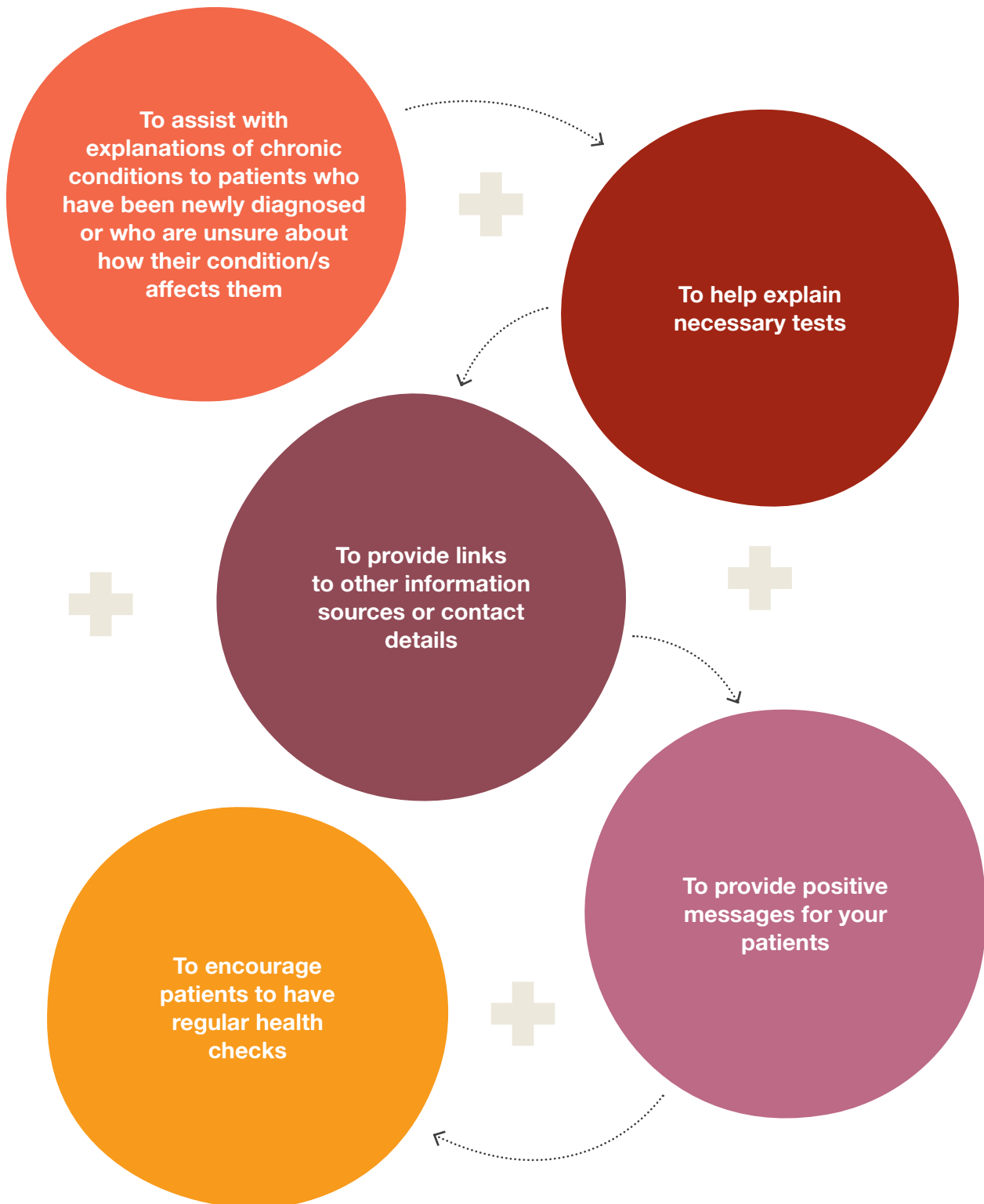
Resource Three

The third resource are pamphlets for the patient. They will help the patient understand who the health professionals are and what conditions they manage and treat; how to access one; what patients should do before an appointment; possible costs; and what to expect during an appointment.



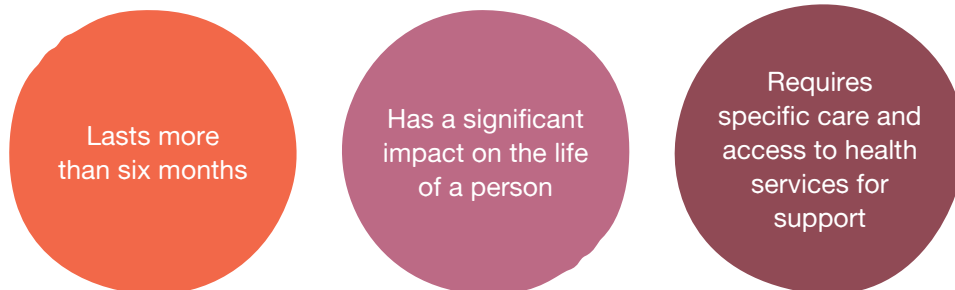
How Should This Resource Be Used?

This resource has been designed to be used by AHWs working in NSW ACCHSs. Here are some ideas on how you can use this resource:



What is a Chronic Health Condition?

A chronic health condition has been described as one that:



Chronic conditions can usually be classified as being either:

- + **Communicable diseases** – meaning the chronic conditions are infectious and can spread from person to person. Examples include HIV/AIDS and Hepatitis.
- + **Non-communicable diseases** – meaning the chronic conditions do not spread from person to person. The World Health Organisation (WHO) usually speaks about five main non-communicable diseases (NCDs): diabetes, cancer, heart disease, smoking related lung disease and mental health conditions. This resource focuses on NCDs.

Chronic conditions can affect people at any age. Children and young people get chronic conditions too. Some people live with more than one chronic health condition (these are called comorbidities).

Why focus on NCDs?

The burden of NCDs is increasing around the world, and Aboriginal people are more likely to be affected by NCDs than non-Aboriginal people. However, the good news is many NCDs can be prevented and controlled. Reducing risk factors, and good management can reduce the impact NCDs have on our health and wellbeing.

What are the main risk factors for NCDs?

The WHO usually speaks about five main risk factors for NCDs: tobacco; alcohol; physical inactivity; unhealthy diets and air pollution (see table). Aboriginal Communities acknowledge there are many other factors that increase the risk of NCDs, and these include: intergenerational trauma; colonisation; racism; poverty and other social determinants of health. We also acknowledge the protective effect of culture on well-being, and the importance of culture in helping Communities stay strong and healthy.

How can we prevent NCDs?

Primary prevention activities stop NCDs before they start.

- + Health promotion activities that support people to quit smoking, exercise more and eat healthy food help prevent NCDs.
- + Sometimes infections can increase the risk of an NCD (for example, the Human Papilloma Virus is linked to cervical cancer; viral hepatitis is linked to liver cancer), even though the NCD itself (e.g. cancer) is not infectious. This is why vaccinations can help prevent some NCDs.

Secondary prevention activities help diagnose NCDs early, so we have the best chance to cure or manage them.

- + Screening activities (for example mammograms to check for breast cancer; and Blood Glucose Level checks for diabetes) can help minimise the negative impact of NCDs on health and wellbeing.

Tertiary prevention activities help patients manage NCDs the best way and reduce complications.

- + Supporting Community Members to keep taking their blood pressure medicines even when they feel well can help them reduce their risk of heart disease.

Non-communicable Diseases

Risk Factors

Cardiovascular
Disease

Diabetes

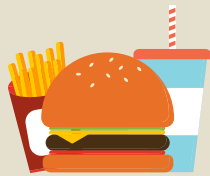
Cancer

Chronic
Respiratory
Disease

Mental
Health



Tobacco use



Unhealthy diets



Physical inactivity



Harmful use of alcohol



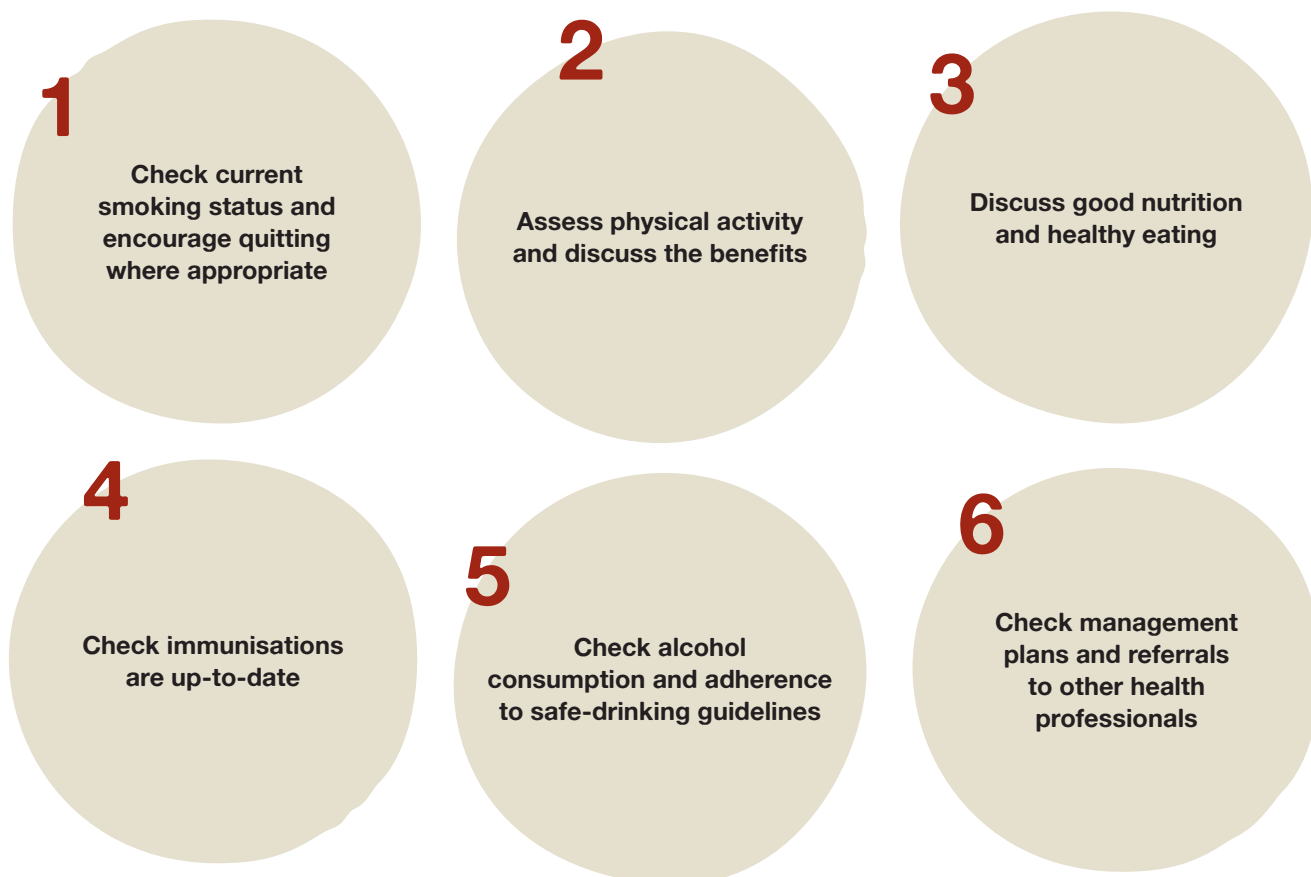
Air
pollution



How Can Health Professionals Help Prevent Chronic Conditions

There are some common items to check and discuss with patients to help prevent chronic conditions. For patients with chronic conditions, there are many actions you may need to take as a health professional.

Here are 6 actions strongly encouraged to be completed when a patient is seen by a health professional:^[3]



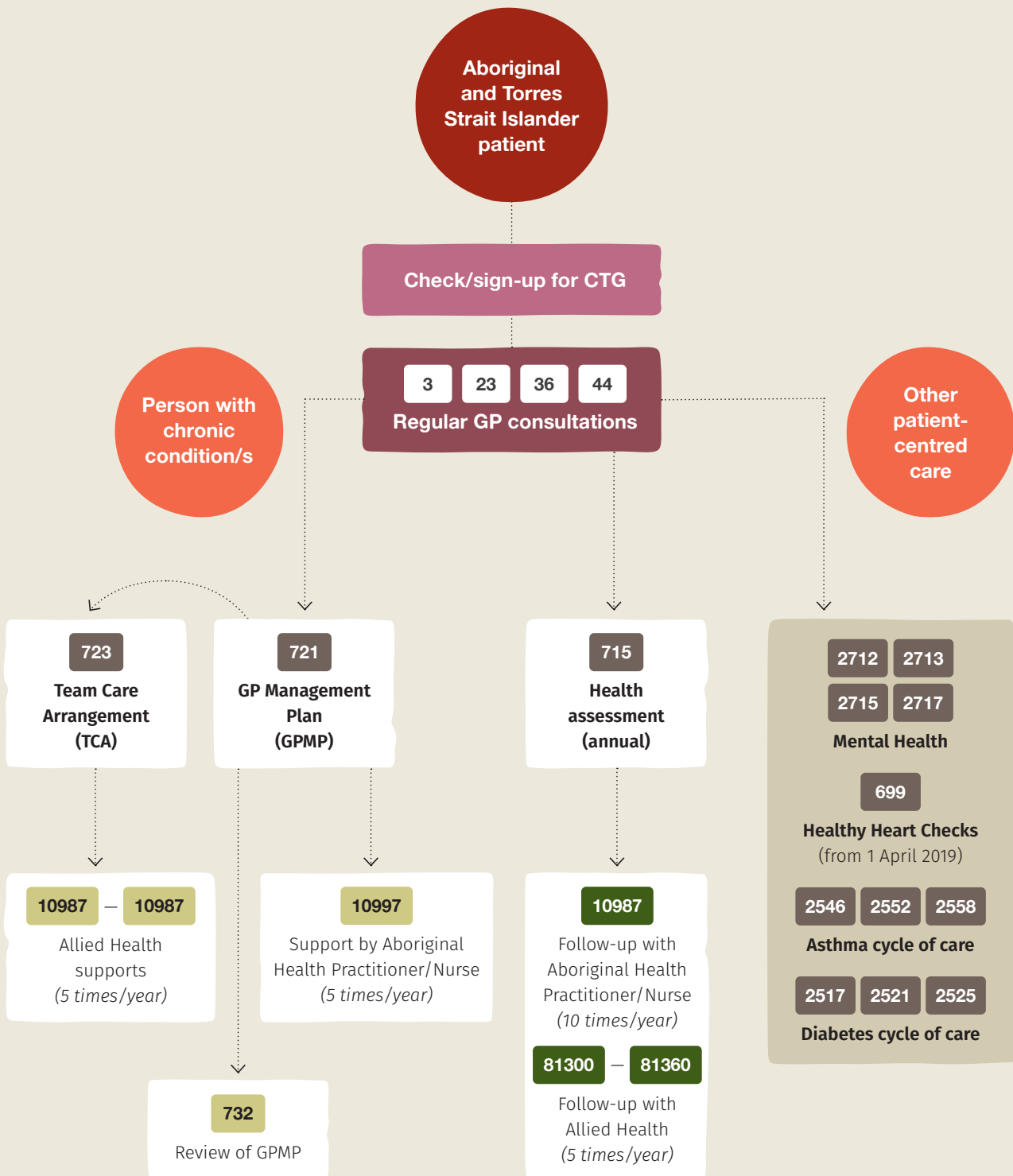
Flowchart for health assessments and management plans for Aboriginal people

On the next page is a flow chart which provides an overview for what checks and plans can be done for preventative health, people at-risk for chronic conditions, and those with more complex care needs.

MBS Item Number Flowchart for Health Assessments and Management Plans

For further details on the **Medicare Benefits Schedule** please see page 45.

Common MBS Items for Chronic Conditions Management^[4]



Health Statistics

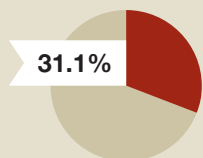


Aboriginal and Torres Strait Islander

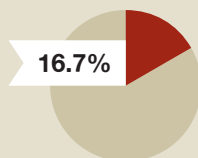
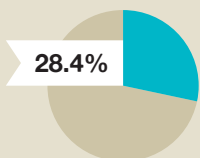


Non-Indigenous

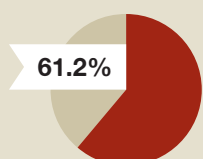
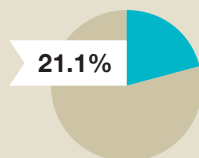
Cardiovascular disease^[5]



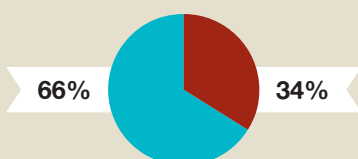
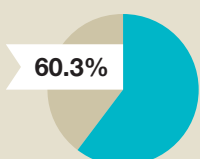
Hypertension – high blood pressure



Hypercholesterolemia – high cholesterol



Adults meeting **physical activity** recommendations



Aboriginal people make up 3% of the population, but 34% of **Rheumatic Heart Disease** notifications between 2016-2018

Circulatory disease

Male – death rate

250.8 / 100,000 **179.1** / 100,000

Female – death rate

223.0 / 100,000 **129.3** / 100,000

Male – hospitalisations

3099.5 / 100,000 **1956.6** / 100,000

Female – hospitalisations

2500.5 / 100,000 **1209.9** / 100,000

Stroke

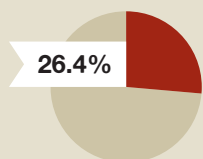
Male – hospitalisations

264.9 / 100,000 **138.4** / 100,000

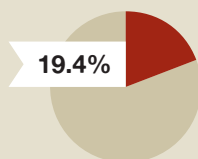
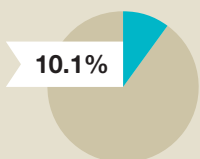
Female – hospitalisations

259.5 / 100,000 **160.6** / 100,000

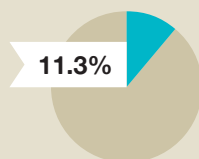
Respiratory conditions



Daily smokers^[6]



Asthma in adults (aged 16 years and over)^[7]



COPD hospitalisation for NSW 2018–19 (all ages)^[8]

1187.8 / 100,000 **203.5** / 100,000



Aboriginal and Torres Strait Islander



Non-Indigenous

Diabetes^[5]

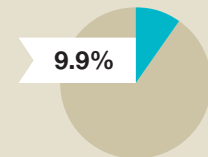
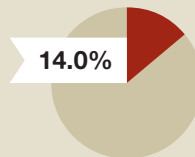
Sugar intake



111g / day

105g / day

Prevalence of diabetes in adults

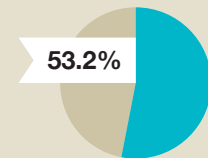
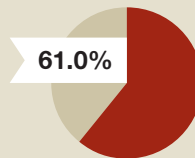


Incidence of **type 2 diabetes** in Aboriginal children

12.7 / 100,000

2.1 / 100,000

Adults who are **overweight and obese**



Musculoskeletal chronic conditions

691.7 / 100,000

525.3 / 100,000

Overnight hospitalisations due to **fall-related injury** in NSW 2018–2019^[9]

3 in 4 Australians aged 45+

with arthritis also had a least one other chronic condition^[10]

Renal disease^[11]



Estimated 18% of Indigenous adults with **biomedical signs of chronic kidney disease** i.e. 2 times more likely than non-Indigenous adults



Hospitalisations for **regular dialysis** (2016–17) i.e. 12 times higher than non-Indigenous people



Hospitalisations for **chronic kidney disease** (2016–17) i.e. 5 times more likely than non-Indigenous people

6,100 / 100,000



Chronic kidney disease related deaths (2015–17) i.e. almost 4 times higher than non-Indigenous people

74 / 100,000

Acronyms

ACCHS	Aboriginal Community Controlled Health Service
ACR	Albumin-Creatinine Ratio
AH&MRC	Aboriginal Health & Medical Research Council of NSW
AHW	Aboriginal Health Worker
AMS	Aboriginal Medical Service
BGL	Blood Glucose Levels
BMI	Body Mass Index
BP	Blood Pressure
CHD	Coronary Heart Disease
CKD	Chronic Kidney Disease
COPD	Chronic Obstructive Pulmonary Disease
CVD	Cardiovascular Disease
DM	Diabetes Mellitus
ECG	Electrocardiogram
eGFR	estimated Glomerular Filtration Rate
ESRD	End Stage Renal Disease
GFR	Glomerular Filtration Rate
GP	General Practitioner
HbA1c	Glycated Haemoglobin
HDL	High Density Lipoprotein
IHD	Ischaemic Heart Disease
LDL	Low Density Lipoprotein
NACCHO	National Aboriginal Community Controlled Health Organisation
NCDs	Non-Communicable Diseases
POC	Point of Care (testing)
TIA	Transient Ischaemic Attack



Cardiovascular Disease

In this section

What is Cardiovascular Disease?

Risk Factors for Cardiovascular Disease

Care Team

Health Checks for Patients with Cardiovascular Disease

Positive Messages for Patients

Notes

What is Cardiovascular Disease?

Cardiovascular Diseases (CVDs) are a group of disorders of the heart and blood vessels.^[12] The blood vessels supply oxygen-carrying blood to organs and tissues.

Blood vessels can become narrow due to a build-up on the inner walls with plaque, which is made up of fat, cholesterol and other products. Plaque from the blood vessel wall can break away (rupture) and can form a clot (thrombus) that blocks off the vessel. When there is a narrowing or blockage in a blood vessel, this can cause damage to the organ or tissue beyond the blockage that is starved of oxygen.^[13]

Many CVDs can be prevented by modifying risk factors. Risk factors for CVD often overlap, so if a person has CVD, they may also have a higher risk of other chronic conditions. It is important to achieve good control of risk factors, such as lowering high blood pressure or quitting smoking, which can help to prevent other chronic conditions.

CVDs include:^[12]

- + **Coronary Heart Disease (CHD) or Ischaemic Heart Disease (IHD)** – disease of the blood vessels supplying the heart muscle. Narrowed arteries reduce the blood flow to the heart muscle. Plaques and clots can block the flow of blood through the artery and cause damage to the heart muscle. This is called a Myocardial Infarct (MI) or Acute Coronary Syndrome (ACS) and is commonly called a heart attack. These are often acute (sudden) events.
- + **Cardiac arrhythmia** – these are conditions where the heart beats are irregular, too slow or too quick. An example is atrial fibrillation.
- + **Cerebrovascular disease** – disease of the blood vessels supplying the brain. Strokes can be caused by a blockage that prevents blood flowing to the brain (ischaemic stroke). Strokes can also be caused by bleeding from a blood vessel in the brain (haemorrhagic stroke).^[14]
- + **Peripheral vascular disease** – disease of blood vessels supplying the arms and legs.
- + **Rheumatic Heart Disease (RHD)** – damage to the heart muscle and heart valves that remains after an episode of Acute Rheumatic Fever (ARF). ARF is uncommon, but can occur following throat infections with streptococcal bacteria. RHD can be prevented and treated.^[15]
- + **Congenital heart disease** – problems with the structure of the heart and major blood vessels. This is often due

to problems with heart development during pregnancy and may present at or after birth. Some people have a condition commonly referred to as having a “hole in the heart”.

Signs and Symptoms

CVD can develop over many years, sometimes without symptoms. For many people, the first symptom they experience can be a serious event, such as a heart attack.

It is important to know how to recognise the symptoms of a heart attack because this is a health emergency. Getting urgent medical help or calling Triple Zero (000) could save a life. Early treatment is important because the longer a blockage is left untreated, the more damage can occur to the heart muscle.^[13]

Common heart attack symptoms include:^[13]

- + Chest discomfort or pain (angina). This can feel like uncomfortable pressure, aching, numbness, squeezing, fullness, heaviness or pain in the chest. This discomfort can spread to the arms, neck, jaw or back. It can last for several minutes or come and go. It can be on either side of the body.
- + Dizziness, light-headedness, feeling faint or feeling anxious.
- + Nausea, indigestion, vomiting.
- + Shortness of breath or difficulty breathing – with or without chest discomfort.
- + Sweating or a cold sweat.

Some people may not experience the above ‘common’ symptoms, especially in women. It is vital that any person who is suspected to have a heart attack be seen immediately by a doctor and call for an ambulance.

Common Medications

- ♥ ACE Inhibitor (e.g. Perindopril, Ramipril)
- ♥ Beta-blocker (e.g. Atenolol, Metoprolol)
- ♥ Anti-thrombotics (e.g. Warfarin, Enoxaparin)

Risk Factors for Cardiovascular Disease



Care Team



Health Checks for Patients with Cardiovascular Disease

People with CVD are at higher risk of having a heart attack or stroke. Patients may be able to reduce their risk and manage their condition through healthy diet, exercise, being smoke free and making sure they take their medications consistently. It is also important that the following tests are carried out routinely. Many CVD conditions and their risk factors may not present with symptoms until the condition is advanced. To give people the best chance to prevent CVD, we need to check their risk factors regularly.

Absolute Cardiovascular Disease Risk

This can be used for Aboriginal or Torres Strait Islander people over 35 years of age to help understand their risk of developing CVD. Use the Australian Absolute Cardiovascular Disease Risk Calculator: www.cvdcheck.org.au.

Cholesterol and/or Triglycerides Test

Check approximately every 12 months

Cholesterol is a waxy, fat-like substance. Your body produces cholesterol, and it is also in some foods. Your body uses cholesterol to build cells, make hormones and vitamin D, and to help you digest food.^[17]

Too much cholesterol can increase the risk of CVD. This is because cholesterol adds to the development of plaque (fatty deposits) in the blood vessels. This then makes it difficult for blood to flow through the arteries.^[17]

Maintaining a healthy diet and an active lifestyle will help to decrease cholesterol levels and limit further complications of CVD.

The blood test results for cholesterol usually show: Total cholesterol, High Density Lipoprotein (HDL) and Low Density Lipoprotein (LDL). LDL makes up most cholesterol. It can stick to the walls of arteries and cause plaque build-up. HDL is healthy because it carries LDL away from the arteries and back to the liver to be broken down and then passed as waste.^[17] An easy way to remember this is to refer to HDL as 'Healthy' and LDL as 'Lousy'.

Triglycerides are the most common fat stored in the body. High triglycerides are also linked to increased risk of CVD.^[17]

For people with CVD, a goal is often set for total cholesterol <4.0 mmol/L, HDL ≥1.0 mmol/L, LDL <2.0 mmol/L and Triglycerides <2.0 mmol/L.^[18]

Electrocardiogram (ECG)

As recommended by GP or Cardiologist

An ECG is a reading of the heart's electrical impulses taken from electrical leads placed on the chest and limbs.^[19] It can detect irregular heart rhythms and activity, which may indicate a heart problem. Sometimes an ECG test is done while people exercise on a bike or treadmill. This is known as a 'stress test', 'stress ECG' or 'exercise ECG'. See 'Stress Test' on page 6.

Weight and Waist Circumference and/or Body Mass Index (BMI)

Every 12 months or opportunistically

Being above the healthy weight range increases the risk of CVD and its complications, and of other chronic conditions.^[20]

The average weight for a person depends on their age, sex and height. Body mass index (BMI) is a simple index of weight-for-height that can be used to indicate whether a person is overweight or obese. BMI is calculated by using a person's weight in kilograms divided by the square of their height in metres (kg/m²). For the majority of people over 18 years old a healthy BMI range is between 18.5–24.9 kg/m².^[21,22] See page 43 for more information.

Waist circumference is a better guide to a person's risk of CVD.^[22] Even if a BMI is measured as being in the healthy weight range, fat around the waist may be a sign of fat closer to internal organs. A waist circumference of greater than 80 cm for women, or 94 cm for men, indicates an increased risk of chronic disease – including CVD.^[21] For Aboriginal people, the risk for cardiovascular events is related to waist circumference independent of other cardiovascular factors.^[21]

Health Checks for Patients with Cardiovascular Disease (cont.)

Blood Pressure (BP)

Every time a patient visits

Blood Pressure (BP) is usually taken at rest and in a sitting position. BP goes up when the heart pumps because of the force needed for blood to flow around the body and back to the heart. High BP can increase the risk of heart attacks, stroke and other complications.

When you take a BP reading, check that the machine is at the same level or slightly lower than the level of the patient's heart.

Patients with CVD should achieve and maintain a blood pressure (BP) measurement of $\leq 130/80$ mmHg. This includes patients with or without diabetes and/or stroke/transient ischemic attack (TIA) and/or microalbuminuria (men >2.5 mg/mmol, women >3.5 mg/mmol).^[16]

BP targets should be used for monitoring treatment effects and adherence to medication while considering the individual person's risk/benefit profile.

Echocardiogram

As recommended by GP or Cardiologist

This test uses ultrasound waves that come from a small hand piece placed on the chest wall. An echocardiogram can be used to assess the size and structure of the heart, including the heart valves and their movements.

Stress Test

As recommended by GP or Cardiologist

A stress test often involves measuring a person's heart rate and rhythm using an ECG, whilst exercising (often on a treadmill). As part of some stress tests, images are taken of the heart while the person exercises and while they rest, which can show how well blood is flowing in various parts of the heart and/or how well the heart squeezes out blood when it beats.^[19]

Angiogram

As recommended by the Cardiologist

An angiogram is a specialised procedure that is used to show whether blood vessels of the heart are narrowed or blocked.^[19] A small tube (catheter) is inserted into an artery in the arm, wrist or groin and guided up the artery until it reaches the heart. A special dye is injected into the blood vessels and an X-ray is used to take an image, and can show any narrowing or blockage of the blood vessels. This test might be followed immediately by treatments, like coronary angioplasty, where a stent may be placed to keep the blood vessels open.^[23]

Medications & Immunisations

As needed

Please remember to check whether the patient has received their annual influenza vaccination, which is usually timed before the flu season (around April/May). Please refer to the Australian Immunisation Handbook for pneumococcal vaccine recommendations.

Medicines should be reviewed regularly. Consider a review of a patient's medications whenever a health check is performed, after a visit to specialist or hospital admission, or when a patient commences a new medicine.

Positive Messages for Patients



Notes

A series of horizontal dotted lines for writing notes.



Diabetes

In this section

[What is Diabetes?](#)

[Risk Factors for Type 2 Diabetes](#)

[Care Team](#)

[Health Checks for Patients with Diabetes](#)

[Positive Messages for Patients](#)

[Notes](#)

What is Diabetes?

Diabetes Mellitus (or diabetes) refers to a variety of serious and complex conditions that occurs when glucose (a type of sugar) in the blood becomes higher than normal.^[24]

The pancreas is a gland in the abdomen that produces insulin, which is a hormone involved with controlling sugar levels in the body. When the pancreas fails to make enough insulin, or when the body becomes resistant (doesn't respond as well) to insulin, the blood glucose level (BGL) remains high, leading to diabetes. Over the long-term, people with diabetes may develop complications including cardiovascular disease, kidney disease, blindness or nerve-damage (especially in the feet and lower limbs).

There are three main types of diabetes:

- + **Type 1 diabetes** – often occurs in children and remains a lifelong condition. The pancreas is unable to produce insulin, and people with type 1 diabetes must be treated with insulin.
- + **Type 2 diabetes** – often slowly develops in adults, who become resistant to the effects of insulin. Type 2 diabetes is the most common type of diabetes and is often undiagnosed in many people.
- + **Gestational diabetes** – is a form of diabetes that occurs in pregnancy, but often resolves after delivery of the baby.

Signs and Symptoms

The signs and symptoms of diabetes may vary, but may include: passing more urine, excessive thirst, unexplained weight changes, fatigue, or visual disturbances.

Type 1 diabetes often presents in children and young adults, and common symptoms are described above. Some people with type 2 diabetes and pregnant women with gestational diabetes may have no symptoms at all, which is why it is important to check the BGL as part of regular health assessments and during pregnancy checks.

Hypoglycaemia (or a 'hypo') occurs when the BGL falls below 4 mmol/L (or a level close to this). Symptoms of hypoglycaemia may include: sweating, paleness, hunger, fatigue, changes in mood or behaviour, irritability, loss of consciousness and seizures/fits.^[26] Causes of hypoglycaemia may include: a delayed or missed meal, not eating enough carbohydrates, drinking alcohol, or excess diabetes medications, particularly insulin.^[26]

Hyperglycaemia refers to BGLs above 7.0 mmol/L when fasting, and above 11.1 mmol/L at 2 hours after meals or a random BGL. People often do not show signs or experience symptoms, but may include: feeling tired, thirsty or frequent urination.^[27]

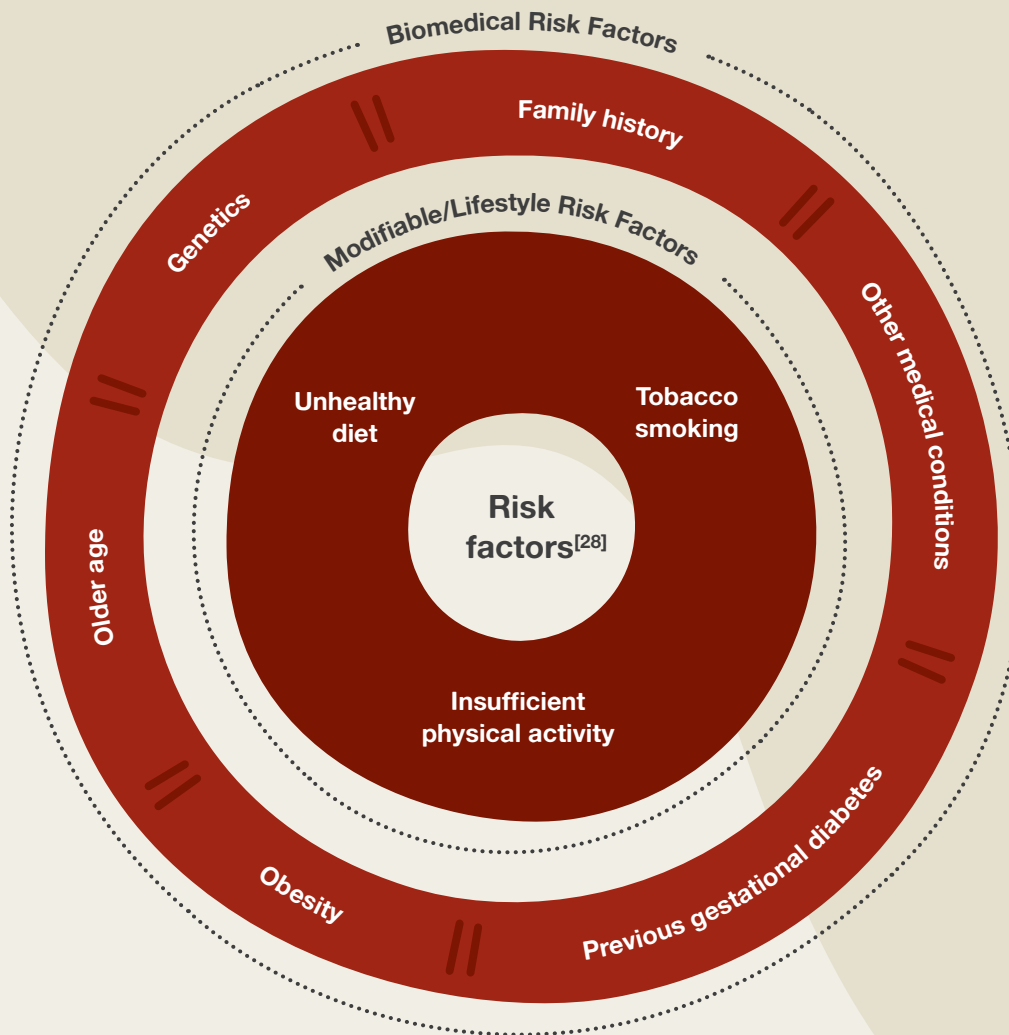
Common Medications

- Metformin (e.g. Diaformin)
- Sulphonylurea (e.g. Daonil, Diamicon)
- Insulin (e.g. Lantus, NovoRapid)

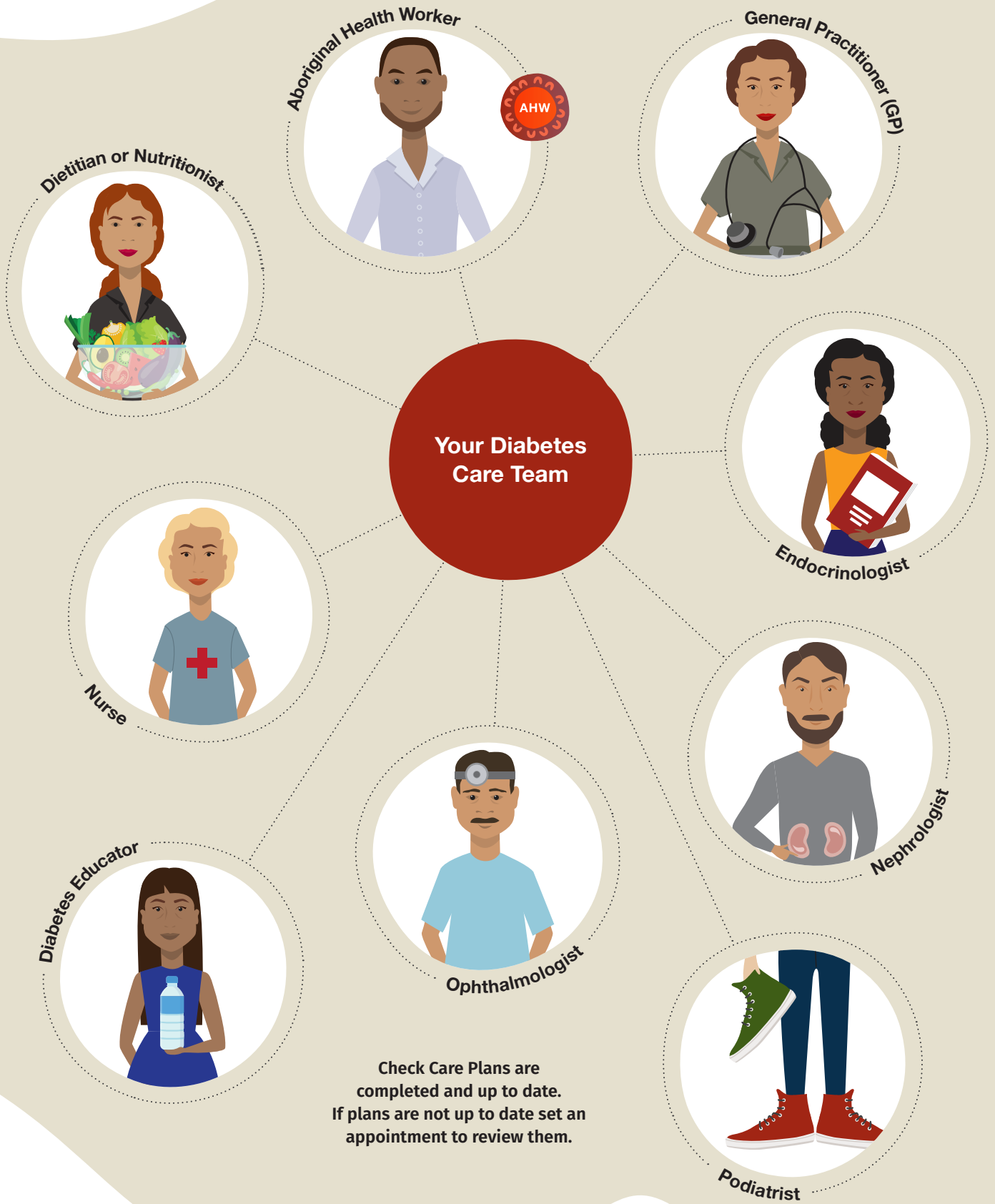
Early diagnosis through screening for diabetes may prevent complications; having a Health Check is extremely important.

Exercise is important for everyone, but especially for people with diabetes. Exercise can help insulin to work better and can also help maintain a healthy weight, lower blood pressure, reduce the risk of heart disease and reduce stress.^[25] If changes in diet and exercise do not keep blood sugar at the right levels in type 2 or gestational diabetes, medications (oral or injections) may need to be considered.

Risk Factors for Type 2 Diabetes



Care Team



Health Checks for Patients with Diabetes

People with diabetes can develop other health problems including high blood pressure, heart attacks and strokes, kidney disease, eye damage, nerve damage (especially to the feet) and depression. Prolonged high blood glucose levels can cause damage to blood vessels and other parts of the body, leading to complications. This means it is important to check the following:

Weight and waist circumference and/or Body Mass Index (BMI)

Every 12 months or opportunistically

People who are overweight or obese have a greater risk of insulin resistance, which is a condition where the body's cells fail to respond to the action of insulin. This leads to hyperglycaemia and a greater risk of developing diabetes.^[29]

The average healthy weight for a person depends on their age, sex and height. Body mass index (BMI) can be used to indicate whether a person is overweight or obese and is calculated by using a person's weight in kilograms divided by the square of their height in metres. A healthy BMI range is 18.5–24.9 kg/m².^[22] See page 43 for more information.

Waist circumference is a better guide to a person's risk of chronic conditions. Even if a BMI is measured as being in the healthy weight range, excess fat around the waist may be a sign of fat closer to internal organs. A waist circumference for women should be 80 cm or less, and for men should be 94 cm or less.^[21]

Glycated haemoglobin (HbA1c)

Every 3 months

HbA1c, also known as glycated haemoglobin, is a blood test. It shows how much sugar has been carried in red blood cells in the last 3 months, and is an indicator of how well the patient's diabetes has been managed.^[30]

Blood Glucose Level (BGL)

As recommended by Endocrinologist, Diabetes Educator or GP

BGL is a measure of how much sugar is in the blood. BGL measured in plasma and obtained via venesection is often used for diagnostic purposes, while fingerprick BGL tests are often used for self-monitoring.

General guidelines for BGL for people with type 2 diabetes is 6–8 mmol/L fasting or 8–10 mmol/L two hours after the start of a main meal.^[30]

An oral glucose tolerance test (OGTT) can be used to diagnose diabetes, and is also commonly used for pregnant women. Blood samples are taken after an overnight fast, and at 1 and 2 hours after a drink (often containing 75 g of glucose), to measure the body's response to glucose.

Good control of BGL is essential for people with diabetes and can reduce the risk of other chronic conditions, such as cardiovascular and kidney disease.

Foot problems

Podiatry check every 6 months, and daily self-examination

High BGL can damage the blood vessels in the legs and feet causing circulation problems and nerve damage. Advise patients to examine, clean and dry their feet well after bathing/showering, especially between the toes, every day. Also check they have comfortable, well-fitting footwear and avoid walking barefoot or in thongs to reduce the risk of injury to their feet.

Blood Pressure (BP)

Every time a patient visits

Blood Pressure (BP) is usually taken at rest and in a sitting position. BP goes up when the heart pumps because of the force needed for blood to flow around the body and back to the heart. When you take a BP reading, check that the machine is at the same level or slightly lower than the level of the patient's heart. People with diabetes (with no other known complications) should aim for a BP of ≤130/80 mmHg.^[30]

Health Checks for Patients with Diabetes (cont.)

Eye examination

Check every 12 months

People with diabetes may develop eye complications including diabetic retinopathy and cataracts. It is important to have good control of BP, cholesterol and BGL to minimise damage to the blood vessels of the retina and capillaries. The eyes should be checked at least every 12 months^[30] and if the patient notices any visual changes, should be referred to an ophthalmologist.

Estimated Glomerular Filtration Rate (eGFR)

Check every 12 months

Glomerular Filtration Rate (GFR) or the estimated GFR (eGFR) measures how well the kidneys filter waste products from the blood and is the best assessment of kidney function.^[31] The eGFR should be checked at least every 12 months for people with type 2 diabetes.^[30] For further information on kidney checks refer to the kidney disease section of this booklet.

Albumin – Creatinine Ratio (ACR)

Check every 12 months

The ACR assesses the amount of albumin in the urine, compared to the expected amount for a healthy person without kidney disease. Diabetes can affect kidney function and the ACR is a critical test for people with diabetes to help identify kidney damage, and to prevent further complications.

Cholesterol and/or Triglycerides Test

Check every 12 months

High cholesterol levels in people with diabetes can increase the risk of heart attack and stroke. Maintaining a healthy diet and active lifestyle will help to decrease cholesterol levels and limit further complications.

The blood test results for cholesterol show values for both High Density Lipoprotein (HDL) and Low Density Lipoprotein (LDL) cholesterol levels. An easy way to remember this is to refer to HDL as 'Healthy' and LDL as 'Lousy'.

Triglycerides – the most common fat stored in the body, are often linked to low HDL levels.^[17]

The blood test results for cholesterol usually show: total cholesterol, HDL and LDL. For people with CVD, a goal is often set for total cholesterol <4.0 mmol/L, HDL \geq 1.0 mmol/L, LDL <2.0 mmol/L and Triglycerides <2.0 mmol/L.^[18]

Medications & Immunisations

As needed

Please remember to check whether the patient has received their annual influenza vaccination, which is usually timed before the flu season (around April/May). Please refer to the Australian Immunisation Handbook for pneumococcal vaccine recommendations.

Medicines should be reviewed regularly. Consider a review of a patient's medications whenever a health check is performed, after a visit to specialist or hospital admission, or when a patient commences a new medicine.

Positive Messages for Patients

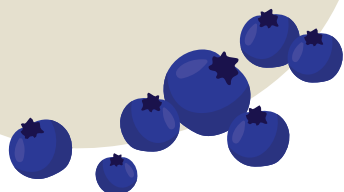
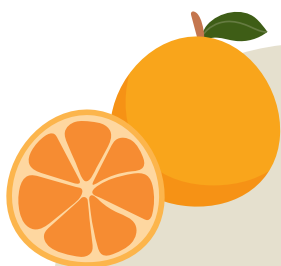
Don't be afraid to ask for help with managing diabetes – there are lots of people who can help you



Having regular health checks and reviews with your GP and healthcare team will help to keep you healthy



If you have diabetes, it's important to stay active and eat healthy



Wear good footwear and check your toes and feet everyday – especially for any cuts or wounds





Kidney Disease

In this section

[What is Kidney Disease?](#)

[Risk Factors for Kidney Disease](#)

[Care Team](#)

[Related Health Checks for Patients](#)

[Positive Messages for Patients](#)

[Notes](#)

What is Kidney Disease?

Chronic Kidney Disease (CKD) occurs when the kidneys are unable to perform their usual function of removing waste products and producing urine effectively. CKD is defined as having an estimated Glomerular Filtration Rate (eGFR) less than 60 mL/min/1.73 m² or evidence of kidney damage for more than 3 months.^[32]

There are many different causes of CKD including diabetes and high blood pressure, medications, genetic conditions and some auto-immune conditions. CKD can be assessed by using stages that indicate the severity of the condition – please see table, page 21.

It is vital that kidney disease is detected early, to prevent ongoing damage and progression to end-stage kidney disease, which may require dialysis or kidney transplant. CKD presents earlier in Aboriginal and Torres Strait Island people and is more likely for those living in remote areas.

Dialysis is a long-term treatment for people with end-stage kidney disease. It is a mechanical process which replaces the function of the kidneys, to remove toxins and waste products from the blood. There are two main types of dialysis, haemodialysis and peritoneal dialysis.^[36]

Haemodialysis – requires the use of a machine that is connected to a patient, which is done at least three times a week, and takes around 4–5 hours each time. Blood is removed from the body and passes through a filtering system, and the filtered blood is then returned to the body. Haemodialysis is often performed in hospitals or dialysis centres, but can also be completed at home for some people.

Peritoneal dialysis – uses the lining of the abdomen (peritoneum) and a fluid called dialysate to remove waste products from the body. This is performed regularly during the day whilst at home (for 30–40 minutes each time, up to five times a day), or overnight whilst asleep.

Signs and Symptoms

During the early stages of kidney disease people are usually asymptomatic (having no signs or symptoms) this is why regular, routine screening is so important.

In the later stages of CKD, signs and symptoms include changes to urine (reduced volume or blood), nausea, vomiting, appetite loss and fluid retention (e.g. swollen ankles).^[32]

Common Medications

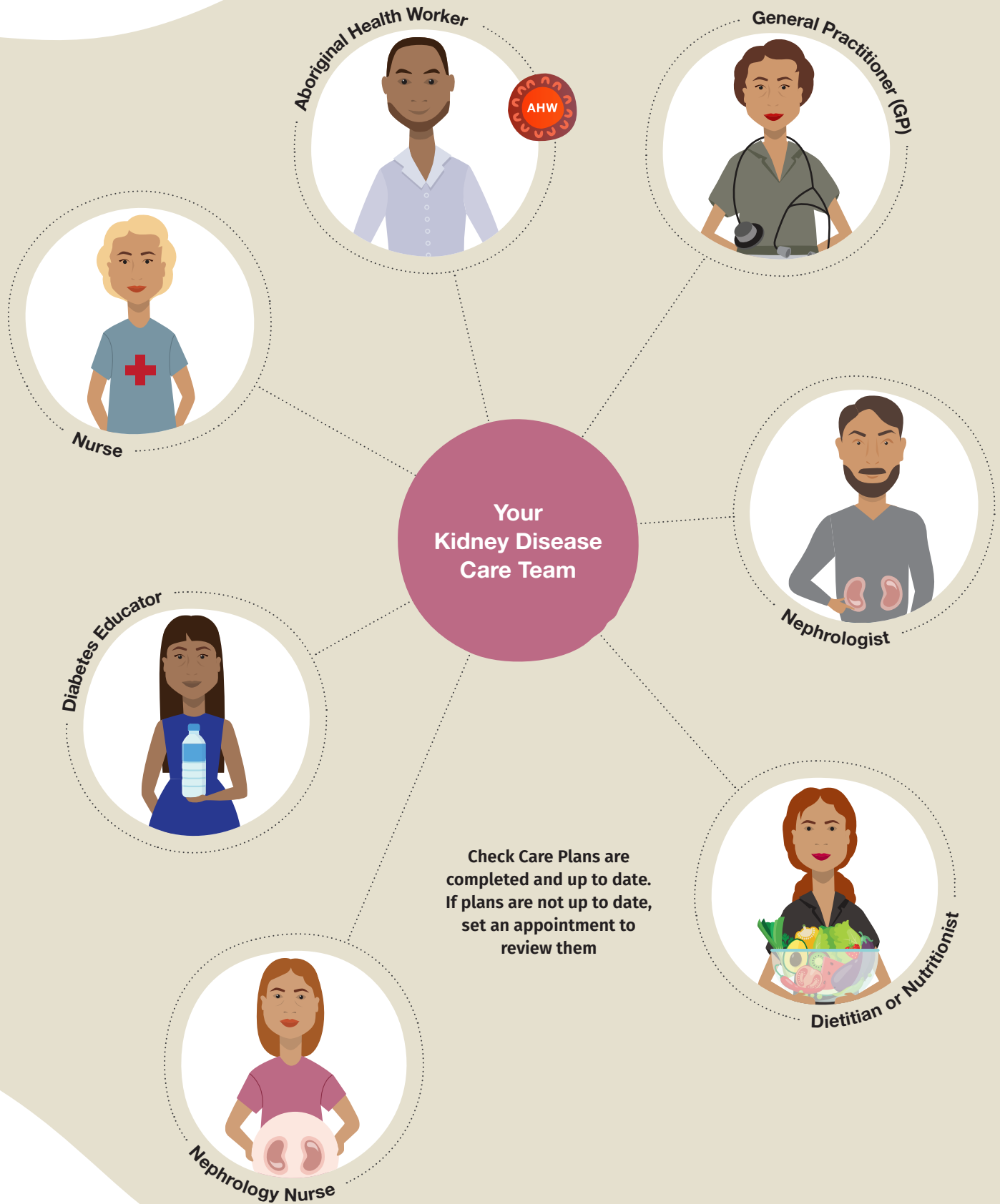
- Supplements: Vitamin D, Iron
- Medication: Frusemide
- Treatment: Dialysis (haemodialysis, peritoneal dialysis)



Risk Factors for Kidney Disease



Care Team



Health Checks for Patients with Kidney Disease

Regular screening enables earlier detection of kidney disease and prevention of CKD. It is possible to experience kidney loss of up to 90% before major signs and symptoms appear.^[34]

Albumin to Creatine Ratio (ACR)

Every time the patient has a Health Check with their GP, or as recommended by their Nephrologist

There is usually very little to no protein in the urine. If protein is present, it could mean the kidneys are not functioning properly and are leaking protein.

The ACR assesses the amount of albumin in the urine, compared to the expected amount for a person without kidney disease. This test can indicate early signs of kidney disease. Please see the table below for further information regarding stages of CKD and corresponding values for ACR.

Urine dipstick tests may show the presence of protein, but are generally unable to detect small amounts of protein and miss early signs of kidney disease. Laboratory urine tests and repeat testing is often required if protein is detected to ensure an accurate diagnosis.

Blood Tests

- + **Albumin** – an important protein in the body and it helps to maintain a balance of the fluids in blood and the body.
- + **Calcium** – needed to keep the body’s cells working properly, especially muscles.
- + **Creatinine** – a body waste product that is regularly checked to monitor kidney function.
- + **Glomerular filtration rate (GFR)** – measures how well kidneys filter waste products from the blood. It is the best assessment of kidney function and is used to stage CKD – please refer to the table below.
- + **Phosphate** – works with other minerals to help regulate the body and is important for cell metabolism. Phosphate levels increase in CKD.
- + **Potassium** – important for cell function and metabolism. High or low potassium levels can cause an irregular heartbeat.
- + **Sodium** – an essential element in the body for fluid regulation and cell function. High levels of sodium may be a sign of dehydration, whilst low sodium may be a sign of salt loss or low intake.
- + **Urea** – a waste product from breakdown of protein in the body and food. Levels increase with CKD.^[35]

Table: The Staging of CKD^[36]

There are six stages of CKD. Staging of CKD is now determined by the combined results of kidney function (the blood GFR) and the urine albumin creatinine ratio.

Kidney Function Stage	GFR (mL/min/1.73m ²)	Albuminuria Stage		
		Normal (urine ACR mg/mmol) Male: <2.5 Female: <3.5	Microalbuminuria (urine ACR mg/mmol) Male: <2.5–25 Female: <3.5–35	Macroalbuminuria (urine ACR mg/mmol) Male: >25 Female: >35
1	≥90	Not CKD unless haematuria, structural or pathological abnormalities present		
2	60-89			
3a	45-59			
3b	30-44			
4	15-29			
5	<15 or on dialysis			

Health Checks for Patients with Kidney Disease (cont.)

Cholesterol and/or Triglycerides test

Check approximately every 12 months

CKD is associated with high cholesterol levels and may increase the risk of stroke and heart attack. Maintaining a healthy diet and active lifestyle will help to decrease cholesterol levels and limit further complications.

The blood test results for cholesterol usually show: total cholesterol, HDL and LDL and Triglycerides.

For people with CKD, a goal is often set for total cholesterol <4.0 mmol/L, HDL \geq 1.0 mmol/L, LDL <2.0 mmol/L and Triglycerides <2.0 mmol/L.^[18]

Weight, waist circumference and/or Body Mass Index (BMI)

Every 12 months or opportunistically

Being overweight or obese may be associated with high blood pressure and raised cholesterol, which may increase the risk of CKD.

Body mass index (BMI) can be used to indicate whether a person is overweight or obese and is calculated by using a person's weight in kilograms divided by the square of their height in metres. A healthy BMI range is 18.5–24.9 kg/m². See page 43 for more information.

Waist circumference is a better guide to a person's risk of chronic conditions. Even if a BMI is measured as being in the healthy weight range, excess fat around the waist may be a sign of fat closer to internal organs. A waist circumference for women should be 80 cm or less, and for men should be 94 cm or less.

Blood Pressure (BP)

Every time a patient visits

Blood Pressure (BP) is usually taken at rest and in a sitting position. When taking a BP reading, check that the machine is at the same level or slightly lower than the level of the patient's heart.

A person's BP usually increases when stressed or exerting because of the tension in the blood vessels and the forces needed for blood to flow around the body. High BP can cause kidney damage, but kidney damage can also cause high BP. A persistently high BP may also lead to heart attacks, stroke and other complications.

In people with CKD, or if albuminuria is present (urine ACR >3.5 mg/mmol in females and >2.5 mg/mmol in males) a BP below 130/80 mmHg should be achieved and maintained.^[36]

Blood Glucose Level (BGL)

As recommended by GP and at every health check

BGL is a measure of how much sugar is in the blood. General guidelines for people with type 2 diabetes are a BGL of 6–8 mmol/L fasting or 6–10 mmol/L at two hours after the start of a main meal. For people without diabetes, normal BGL levels are between 4.0–7.8 mmol/L.^[37]

It is important for people with diabetes to keep their BGLs under control with regular physical activity, weight-loss, a balanced-diet and may require the use of medications. Patients should be mindful of what they eat and drink, especially high-fat foods and sugary drinks. Please refer to the diabetes section for further information.

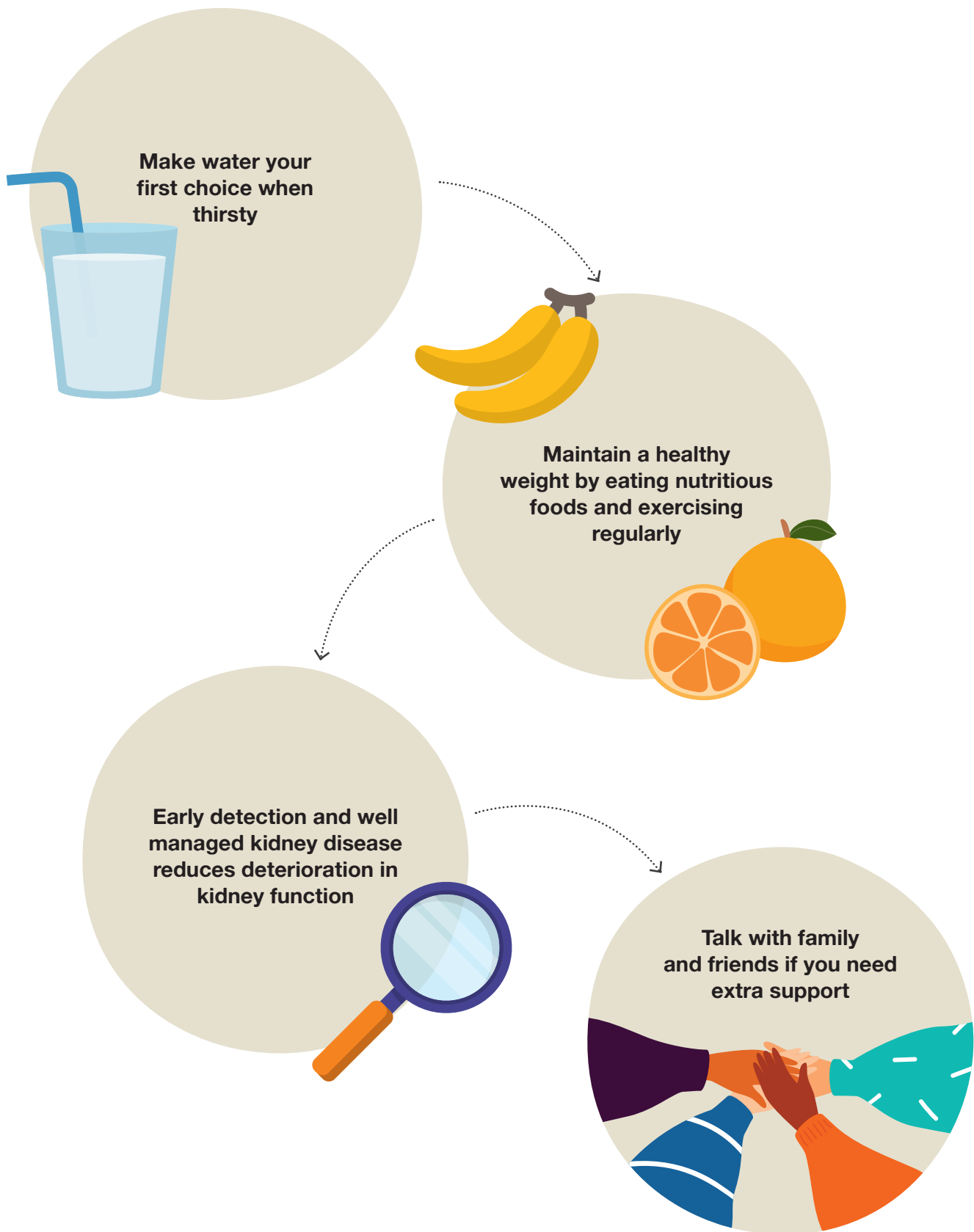
Medications & Immunisations

As needed

Please remember to check whether the patient has received their annual influenza vaccination, which is usually timed before the flu season (around April/May). Please refer to the Australian Immunisation Handbook for pneumococcal vaccine recommendations.

Medicines should be reviewed regularly. Consider a review of a patient's medications whenever a health check is performed, after a visit to specialist or hospital admission, or when a patient commences a new medicine.

Positive Messages for Patients



Notes

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Musculoskeletal Conditions

In this section

What are Musculoskeletal Conditions?

Risk Factors for Musculoskeletal Conditions

Care Team

Health Checks for Patients with Musculoskeletal Conditions

Positive Messages for Patients

Notes

What are Musculoskeletal Conditions?

The bones, joints, muscles, and connective tissues of the body make up the musculoskeletal system. There are many common conditions involving the musculoskeletal system which can last greater than three months (chronic) and have a significant impact upon a person's ability to perform activities of daily living due to pain or movement restrictions.

Chronic back pain – many different causes exist for people with chronic back pain, which may be linked to previous injuries or trauma, poor posture, disc disease and osteoarthritis. Some people have mild symptoms, while others may experience severe and disabling pain which limits their ability to work and engage in routine daily activities. People with chronic back pain may also feel constantly distressed and develop a low mood.^[38]

Osteoarthritis – inflammation and damage to the cartilage in joints that develops over time and mostly affecting the hands, spine, hips, and knees. Joints may be swollen, and pain experienced may tend to be felt after activity or at the end of the day. Osteoarthritis is more common in the elderly and in women.^[39]

Osteoporosis – a condition involving loss of calcium and minerals in the bones, leading them to become brittle and weaker. People with osteoporosis have an increased risk of fractures following a minor injury or fall and commonly occurs in the hip, spine, or arms. Women are more likely to be affected by osteoporosis, and people with various hormonal disorders (e.g. thyroid disease) are also at increased risk.^[40]

Rheumatoid Arthritis – an auto-immune condition that causes inflammation and damage to the joints, especially in the hands and feet. People often experience joint stiffness in the morning which eases through the day. If not managed well, severe joint damage can lead to deformities of the affected joints.^[41]

Other examples of chronic musculoskeletal conditions include:

- + Chronic gout
- + Chronic neck pain
- + Juvenile arthritis.

Signs and Symptoms

The signs and symptoms of musculoskeletal conditions often will depend upon which part of the body is affected. Initially, people may report pain which varies from mild to severe, stiffness of joints, sore muscles, or difficulties with certain movements (e.g. bending or lifting). Symptoms may feel prolonged or progressively worsen over time, and recovery is incomplete.

Other symptoms may be present, which may include:^[40]

- + Joint swelling and changes
- + Clicking or cracking sounds with joint movements
- + Abnormal gait (walking abnormality)
- + Reduced height and poor posture.

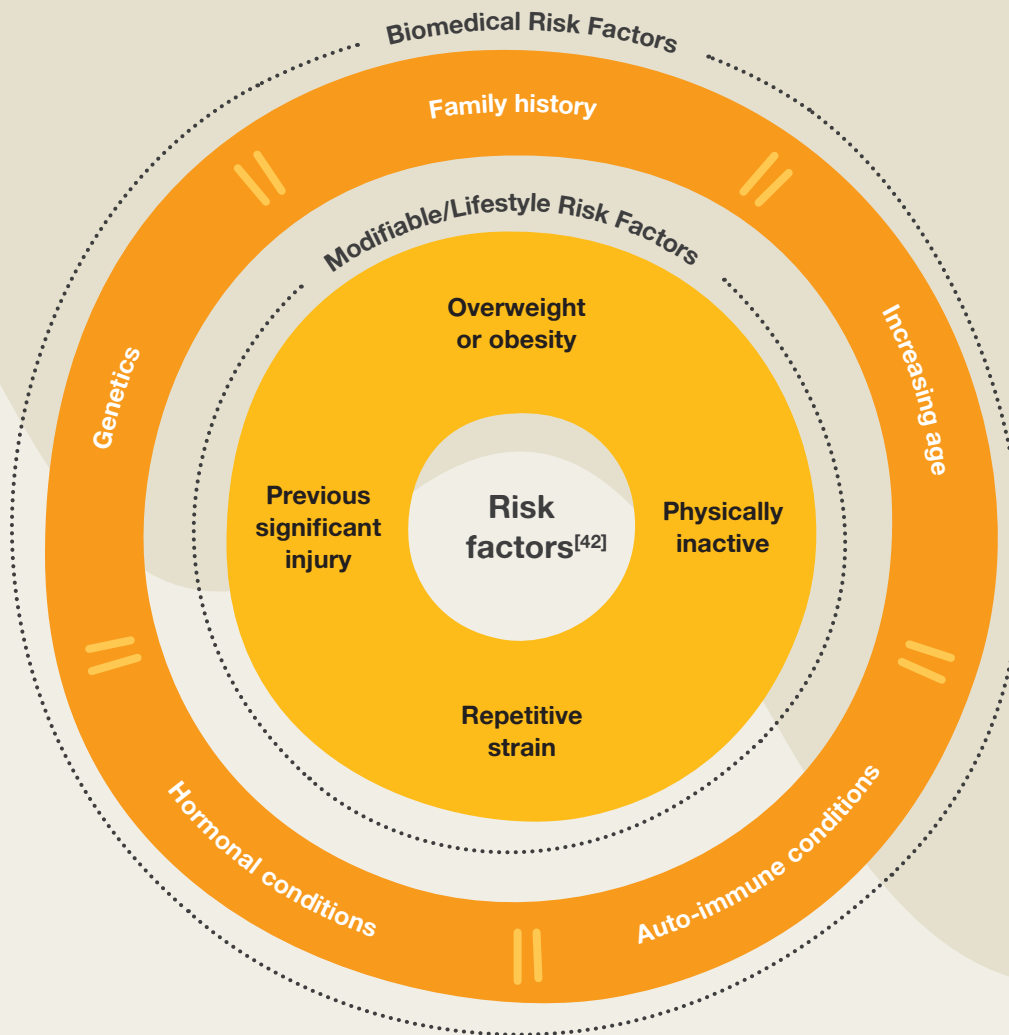
It is important to acknowledge that chronic musculoskeletal conditions can have a significant impact on the way a person feels about themselves and their overall wellbeing. People may feel restricted in their ability to do things that they may have previously been able to do and may get quite frustrated at home or at work. The mental health impacts are important to monitor, and an assessment for anxiety and/or depression should always be considered.

Common Medications

- Supplements: glucosamine, chondroitin, calcium, vitamin D
- Pain relief: paracetamol, ibuprofen
- Osteoporosis management: alendronate, denosumab (Prolia)



Risk Factors for Musculoskeletal Conditions



Care Team



Health Checks for Patients with Musculoskeletal Conditions

Ask about pain management and movements and overall function

Many patients with chronic musculoskeletal conditions may have other co-morbidities and be taking multiple medications. Some patients require the input of a multi-disciplinary team which may include allied health professionals such as a Podiatrist, Occupational Therapist or Dietitian, and other medical specialists such as a Rheumatologist or Pain Specialist.

Asking simple questions to patients with chronic musculoskeletal conditions about their pain management and movements can enable a very quick assessment of how they are coping. If there are concerns that a patient is not managing well and is significantly impacting on their daily activities, it is important to raise this with the patient's GP and to seek further support.

Body Mass Index (BMI)

Every 12 months or opportunistically

The BMI can be used to indicate if someone is overweight or obese. A healthy BMI is between 18.5–24.9 kg/m² for most people aged 18 years and over.^[21]

Being overweight or obese can place increased stress and loading on the joints, which can lead to pain. Pain may inhibit patient participation in physical activity and possibly contribute to a risk of further weight gain and adding greater stress on the joints.

Bone Mineral Density (BMD) testing

As recommended by GP

A patient's BMD is usually measured by a technique called Dual-Energy X-ray Absorptiometry (DXA) and can be used to diagnose osteoporosis or osteopenia (bone loss). Patients including those over 50 years old with risk factors or specified chronic conditions (e.g. rheumatoid arthritis, chronic kidney disease), or a history of a fracture with minimal trauma, are recommended to be referred by their GP for a BMD test.

BMD reports often provide a 'T-score' and 'Z-score', that indicates a patient's bone density compared to young healthy adults and adults of the same age respectively. A 'T-score' of less than -2.5 indicates osteoporosis.^[43]

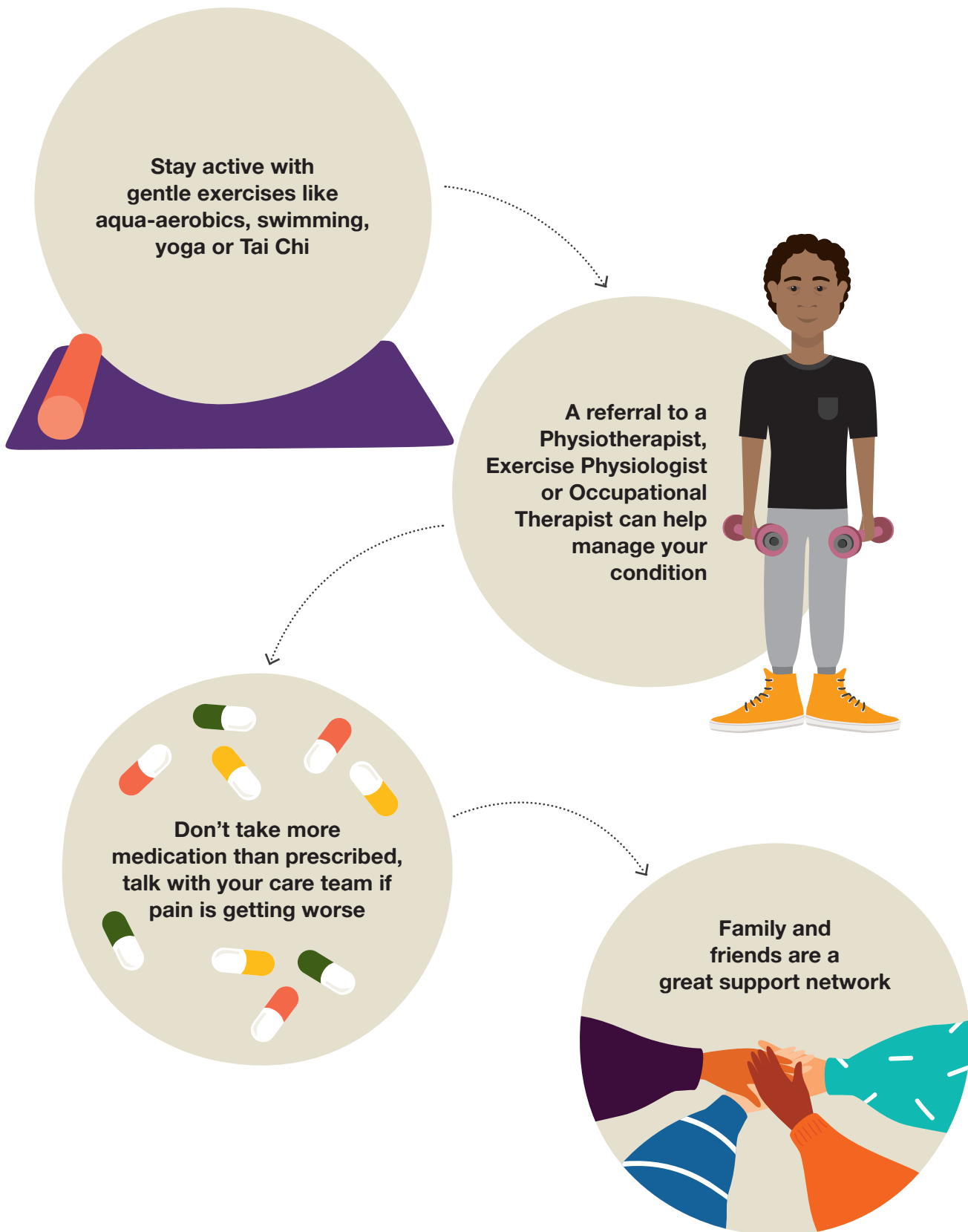
Medications & Immunisations

As needed

Please remember to check whether the patient has received their annual influenza vaccination, which is usually timed before the flu season (around April/May). Please refer to the Australian Immunisation Handbook for pneumococcal vaccine recommendations.

Medicines should be reviewed regularly. Consider a review of a patient's medications whenever a health check is performed, after a visit to specialist or hospital admission, or when a patient commences a new medicine.

Positive Messages for Patients



Notes

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Notes

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Respiratory Disease

In this section

[What is Respiratory Disease?](#)

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What is Respiratory Disease?

There are a variety of chronic respiratory diseases which affect airflow in and out of the lungs which include Asthma and Chronic Obstructive Pulmonary Disease (COPD).

Acute Asthma

Children and adults with asthma have sensitive airways in their lungs. When they are exposed to triggers (e.g. cigarette smoke) their airways narrow, making it harder for them to breathe and a wheeze may develop. The lining of the airways may become swollen (inflamed) with mucous production and the muscles around the airways tighten (bronchoconstriction) leading to blockage of the airways.^[44] Most people with acute asthma can be well managed with inhaled medications (puffers) and a healthy lifestyle.

Chronic Obstructive Pulmonary Disease (COPD)

COPD refers to a number of lung conditions that include emphysema, chronic bronchitis and chronic asthma. These conditions are progressive and generally worsen over time, and cause shortness of breath by reducing the normal flow of air through the airways, however they can be managed well with the right diagnosis and treatment.^[45]

Emphysema – a condition where the elastic fibres in the breathing tubes (bronchi and bronchioles) become floppy and narrow, and the air sacs (alveoli) of the lungs become stretched. This makes it harder to breathe, as air can get trapped in the lungs and impair the transfer of oxygen into the bloodstream, causing shortness of breath.


Chronic Bronchitis – occurs when the airways of the lungs have become narrow and partly clogged with mucus, making it harder to breathe. This is caused by constant swelling and irritation of the breathing tubes (bronchi and bronchioles) and may increase the production of mucus (phlegm or spit). Acute bronchitis may last a few days or weeks, but becomes chronic if it remains over the long term. A definition of chronic bronchitis is a mucus producing cough on most days of the months for over three months a year, occurring two years in a row.

Chronic Asthma – acute asthma which is well controlled may only affect breathing occasionally. Chronic asthma occurs when there is long-term inflammation on the lungs causing continued shortness of breath. This may happen when asthma has not been well treated or has been very severe over a long period of time. It is not fully reversible with treatment.

Signs and Symptoms

A patient with respiratory disease can have a variety of signs and symptoms. Some include coughing, wheezing, shortness of breath, a tight feeling in the chest, mucus production on most days or using a reliever puffer (e.g. Ventolin) more than two times per week.^[46]

Common Medications

- 
- Reliever (inhaled) e.g. Ventolin
 - Preventer (inhaled) e.g. Budesonide, Fluticasone
 - Corticosteroids (oral) e.g. Prednisone

Risk Factors for Respiratory Disease



Care Team



Health Checks for Patients with Respiratory Disease

A person can be diagnosed with a respiratory disease in a variety of ways, including from the patient's history (especially smoking and occupational exposures), physical examination and performing investigations such as spirometry or X-ray.

If a person currently smokes, assess their readiness to quit and provide support for smoking cessation. Smokerlysers can be used to monitor the reduction of CO (Carbon Monoxide) levels in individuals who are trying to quit smoking.

Weight and waist circumference and/or Body Mass Index (BMI)

Every 12 months or opportunistically

Having a healthy weight and not smoking means the lungs are more effective in getting oxygen to all parts of the body. Being overweight or obese can decrease your overall health and wellbeing and lead to other health complications.

A person's weight varies according to their age, sex and height. Body Mass Index (BMI) is a measure that takes these things into account and for people over 18 years old, a healthy BMI range is 18.5–24.9 kg/m².^[21,22] A high BMI (>25 kg/m²) can indicate that someone is overweight or obese.

Waist circumference is a better guide to a person's risk of chronic disease and should be 80 cm or less for women, and 94 cm or less for men.^[21]

Blood pressure (BP)

Every time a patient visits

Blood Pressure (BP) is usually taken at rest and in a sitting position. When taking a BP reading, check that the machine is at the same level or slightly lower than the level of the patient's heart.

A persistent high BP can also lead to heart attacks, stroke and other complications. People with a chronic respiratory condition should aim for a BP of $\leq 140/90$ mmHg.

Carbon monoxide (Smokerlyzer ®) test

Every visit, especially if giving up the smokes or is an ex-smoker

Testing for carbon monoxide (toxic, odourless, colourless, tasteless gas) in a person's breath indicates how much a person is smoking and exposure to smoke. Cigarette smoking produces carbon monoxide and can trigger some respiratory conditions. Being a non-smoker is the most effective strategy to prevent COPD.

Spirometry

Once or twice a year (or as needed, with changes in symptoms)

Everyone should have spirometry testing as part of the diagnosis of respiratory conditions. Spirometry measures a person's lung capacity and airflow compared to the predicted levels according to age, sex and height.^[48] Spirometry is often used to confirm a diagnosis of COPD or asthma, but can be used to monitor disease severity. For people with GP management plans, spirometry should be done at least twice a year, but may be performed once a year to check a person's lung health.

Medicines & immunisations

As needed

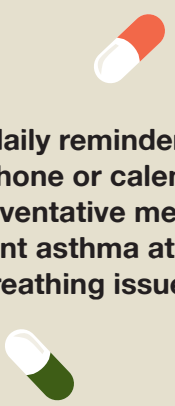
Please remember to check whether the patient has received their annual influenza vaccination, which is usually timed before the flu season (around April/May). Please refer to the Australian Immunisation Handbook for pneumococcal vaccine recommendations.^[49]

Medicines should be reviewed regularly, and it is important to check for correct inhaler device techniques at every visit, which a pharmacist can also assist with. Consider a review of a patient's medications whenever a health check is performed, after a visit to specialist or hospital admission, noted changes in lung function, or when a patient commences a new medicine even if it is not for a respiratory condition.


Asthma Management plan

Ensure that children and adults understand how to recognise if their symptoms are getting worse, and how to manage their asthma. Check that children have up-to-date asthma action plans, and they always carry their reliever medication with them.


Positive Messages for Patients





Set daily reminders on your phone or calendar to take preventative medication to prevent asthma attacks or breathing issues



Pay attention to what triggers your asthma or COPD, and always carry your reliever medication with you



Stop smoking. This will improve your breathing and allows you to lead a healthier life to spend with loved ones.



Your family and friends are part of your support team, reach out if you need

Notes

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Useful Links and Other Resources

In this section

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[Resources](#)

[Glossary](#)

[Notes](#)

Useful Links

Cardiovascular Disease

- + Australian Absolute Cardiovascular Disease Risk Calculator www.cvdcheck.org.au
- + National Heart Foundation www.heartfoundation.org.au
- + National Stroke Foundation www.strokefoundation.com.au
- + Rheumatic Heart Disease Australia www.rhdaustralia.org.au

Diabetes

- + Diabetes Australia www.diabetesaustralia.com.au
- + Diabetes NSW www.diabetesnsw.com.au
- + Diabetes Victoria 'Feltman and Felt mum' Resources www.diabetesvic.org.au/Advanced-Search-Result-Detail?content_id=a1R0o00000Jkgt4EAB
- + National Diabetes Service Scheme www.ndss.com.au
- + National Prescribing Service 'HbA1c Online Converter tool' www.nps.org.au/conditions-and-topics/conditions/hormones-metabolism-and-nutritional-problems/diabetes-type-1/for-individuals/testsand-monitoring/hba1c-unit-converter
- + National Prescribing Service 'HbA1c Conversion Table' www.diabetessociety.com.au/documents/HbA1cConversionTable.pdf

Kidney Disease

- + Kidney Health Australia www.kidney.org.au
- + Kidney Health Australia Glossary "What Does that Word Mean" www.kidney.org.au/kidneydisease/kidneyglossary/tabid/679/default.aspx

Respiratory Disease

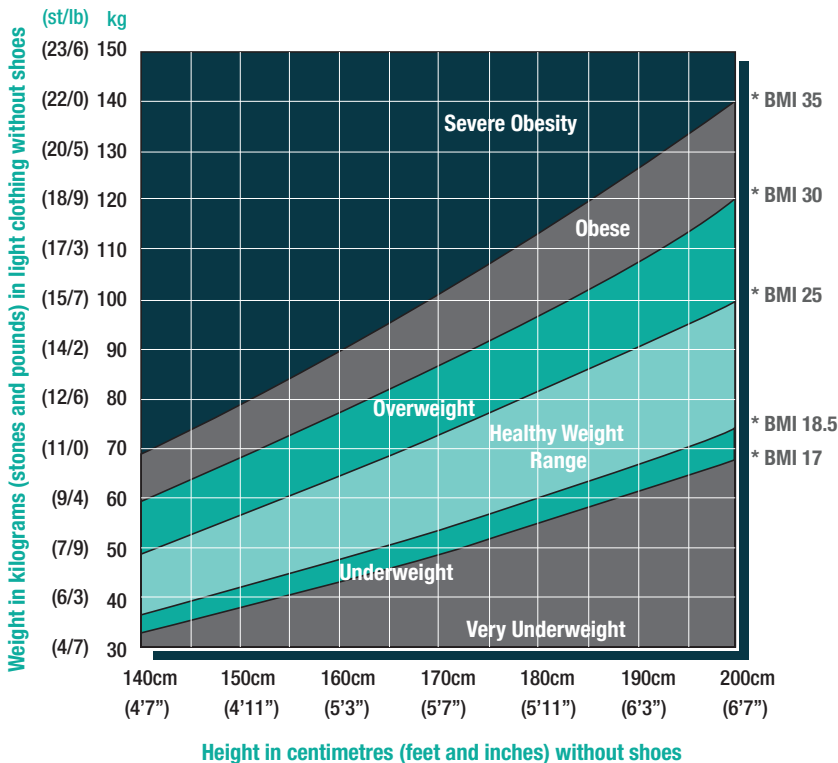
- + Asthma Foundation www.asthmaaustralia.org.au
- + Australian Institute of Health and Welfare www.aihw.gov.au/chronic-respiratory-conditions
- + Lung Foundation Australia www.lungfoundation.com.au

Other Support

- + Aboriginal Health and Medical Research Council of NSW (AH&MRC) www.ahmrc.org.au
- + Australian Hearing www.hearing.com.au
- + Australian Indigenous HealthInfoNet www.healthinfonet.ecu.edu.au
- + Brien Holden Vision Institute (formerly known as ICEE) www.brienholdenvision.org
- + Carers NSW www.carersnsw.asn.au
- + Get Healthy Information and Coaching Service® www.gethealthynsw.com.au
- + Guide Dogs Australia ACT/NSW www.guidedogs.com.au
- + Indigenous Allied Health Australia www.iaha.com.au
- + Medicare Australia www.humanservices.gov.au/customer/information/welcome-medicare-customers-website
- + National Aboriginal Community Controlled Health Organisation (NACCHO) www.naccho.org.au
- + NSW Health www.health.nsw.gov.au
- + NSW Knockout Health Challenge www.nswknockouthealthchallenge.com.au
- + Quitline www.icanquit.com.au

Resources

BMI Chart for Adults



$$\text{* Body Mass Index (BMI)} = \frac{\text{Weight (kg)}}{\text{Height}^2 \text{ (metres)}}$$

Source: Eat for Health (2013). Australian Dietary Guidelines: Summary https://www.eatforhealth.gov.au/sites/default/files/content/The%20Guidelines/n55a_australian_dietary_guidelines_summary_131014_1.pdf

Combining Measures to Assess Obesity and Disease Risk

Classification	Body mass index (BMI) (kg/m ²)	Disease risk (relative to normal measures)	
		Waist circumference Men 94–102 cm Women 80–88 cm	Waist circumference Men >102 cm Women >88 cm
Underweight	<18.5	–	–
Healthy weight	18.5–24.9	–	Increased
Overweight	25.0–29.9	Increased	High
Obesity	30.0–39.9	High to very high	Very high
Severe obesity	>40	Extremely high	Extremely high

*Risk of type 2 diabetes, elevated blood pressure and cardiovascular disease (CVD).

Source: NACCHO/RACGP. National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people. 3rd edn. East Melbourne, Vic: RACGP, 2018. Box 3. Combining measures to assess obesity and disease risk in adults

Aboriginal and Torres Strait Islander Guide to Healthy Eating



Australian Government
National Health and Medical Research Council
Department of Health

www.eatforhealth.gov.au

Aboriginal and Torres Strait Islander Guide to **Healthy** Eating

Eat different types of foods from the five food groups every day.



Drink plenty of water.



Use small amounts



Only sometimes and in small amounts



Source: Eat for Health. (2015). Aboriginal and Torres Strait Islander Guide to Healthy Eating. Available from: https://www.eatforhealth.gov.au/sites/default/files/content/The%20Guidelines/final_igthe_a3_poster_-_lr.pdf

Health Assessment and Management Plans – Medicare Benefits Schedule

GP consultation items (in rooms/clinic)

- 3** – Level A
- 23** – Level B, less than 20 minutes
- 36** – Level C, at least 20 minutes
- 44** – Level D, at least 40 minutes

Chronic disease management

- 721** – Prepare GP management plan
- 723** – Coordinate development of team care arrangements
- 732** – Review of GP management plan or coordinate a review of team care arrangements

Follow up items for Aboriginal and Torres Strait Islander health practitioners

- 10987** – Follow up for patients who have received a health assessment for Aboriginal and Torres Strait Islander people (715); up to 10 visits per year
- 10997** – Monitor and support for a person with a chronic disease care plan (721); up to 5 visits per year

Health assessment items

- 699** – Heart health assessment, at least 20 minutes
- 715** – Health assessment for Aboriginal and Torres Strait Islander people

Allied health items for people with chronic conditions or complex care needs (linked with 721/723)

- 10950** – Aboriginal and Torres Strait Islander health service
- 10951** – Diabetic education service
- 10952** – Audiology service
- 10953** – Exercise physiology service
- 10954** – Dietetics service
- 10956** – Mental health service
- 10958** – Occupational therapy service
- 10960** – Physiotherapy service
- 10962** – Podiatry service
- 10964** – Chiropractic service
- 10966** – Osteopathy service
- 10968** – Psychology service
- 10970** – Speech pathology service

Mental health

- 2712** – Review of GP mental health treatment plan
- 2713** – Preparation of GP mental health treatment plan, at least 20 minutes
- 2715** – Preparation of GP mental health treatment plan, 20–40 minutes
- 2717** – Preparation of GP mental health treatment plan, at least 40 minutes

Miscellaneous/diagnostic items

Cardiology

- 11700** – Electrocardiography tracing and report
- 11701** – Electrocardiography report only
- 11702** – Electrocardiography tracing only

Diabetes

- 12325** – Bilateral retinal photography to assess diabetic retinopathy (Aboriginal and Torres Strait Islander patients)

Kidney Disease

- 13105** – Haemodialysis in very remote areas (Modified Monash Model 7)
- 13109/13110** – Indwelling peritoneal catheter, for dialysis insertion and fixation

Respiratory Disease

- 11506** – Spirometry, measurement of respiratory function

Annual cycle of care

Diabetes

- 2517** – Annual cycle of care for diabetes, Level B
- 2521** – Annual cycle of care for diabetes, Level C
- 2525** – Annual cycle of care for diabetes, Level D

Asthma

- 2546** – Completion of asthma cycle of care, Level B
- 2552** – Completion of asthma cycle of care, Level C
- 2558** – Completion of asthma cycle of care, Level D

Diabetes education resources – Feltman and Feltmum

Feltman

Feltman® is a diabetes teaching tool made by the Victorian Aboriginal Community Controlled Health Organisation (VACCHO) and Diabetes Victoria. Feltman is designed to help health professionals explain diabetes in a way that is easy to understand. Feltman can be used with individuals and community groups, as a one-way demonstration or as a two-way interactive workshop.



Feltmum

Feltmum® is a diabetes in pregnancy add-on kit for the Feltman resource developed by Diabetes Victoria and the Victorian Aboriginal Community Controlled Health Organisation (VACCHO). Feltmum is designed to help health professionals explain diabetes in pregnancy in a way that is easy to understand.



Source: https://www.diabetesvic.org.au/Advanced-Search-Result-Detail?content_id=a1R0o00000Jkgt4EAB

Glossary

Below are some common words that will come up in supporting patients with chronic disease prevention and management.

A

Aboriginal and Torres Strait Islander Health Practitioner	Is a person registered by the Aboriginal and Torres Strait Islander Health Practice Board. The practitioner may use the titles: <ul style="list-style-type: none">+ Aboriginal health practitioner+ Aboriginal and Torres Strait Islander health practitioner+ Torres Strait Islander health practitioner
Aboriginal Health Worker (AHW)	A key team member who supports patients, and advocates for better health outcomes and access to health services, as well as providing health education
Acute	Refers to an event that often occurs suddenly, usually lasting for a short period of time, and can escalate quickly, requiring urgent attention
Angina	Chest pain or tightness, often arising in patients with ischaemic heart disease. May be stable or unstable, and may require urgent review
Albumin	Is an important protein made by the liver that keeps fluid in place in the blood
Artery	A large blood vessel that carries blood from the heart to other parts of the body
Asymptomatic	Not having signs and symptoms of a disease
Audiologist	Assists with the diagnosis and management of hearing and balance disorders

B

Blood Glucose	Glucose (sugar) in a person's blood
Blood Vessels	The arteries, veins and capillaries that carry blood throughout the body
Body Mass Index (BMI)	BMI is calculated by using a person's weight in kilograms divided by the square of their height in metres (kg/m^2). For the majority of people over 18 years of age a healthy BMI range is between 18.5–24.9 kg/m^2
Bronchial (tubes)	The airways in the lung that branch from the trachea (windpipe)

C

Calcium	Needed for healthy bones and teeth and to keep the cells working properly
Carbon Monoxide	Colourless, tasteless toxic chemical with no smell. Can be found in smoke
Care Plans	Commonly used term to describe detailed assessments by GPs, nurses and AHPs, and provides details on a patient's health needs and goals
Cardiologist	Specialist doctor who manages conditions affecting the heart and circulatory system
Cataracts	Condition where the lens of the eye becomes opaque/cloudy, which leads to a decrease in vision

Chronic	Term used for conditions that are present for a longer time period (usually greater than 3 months)
Cilia	Small, hair-like structure found in the lungs, which continuously move to remove waste and foreign material out of the airways
Comorbidity	Refers to the presence of more than one condition
Creatinine	A muscle waste product which is filtered by the kidneys, and measured as part of assessment of kidney function

D

Dentist	Specialises in examining, cleaning and repairing teeth
Diabetes Educator	Provides education and training to understand and manage diabetes
Diastolic blood pressure	This is the pressure of blood in the arteries when the heart is filling and is the second number in a BP reading. For example, for a BP reading of 120/80 mm Hg, the diastolic pressure is 80
Dietitian	Provides advice on healthy eating and food choices to manage medical conditions and improve overall health

E

Emphysema	A condition where the elastic fibres in the breathing tubes (bronchi and bronchioles) become floppy and narrow and the air sacs (alveoli) of the lungs become stretched
Endocrine	'Endo' means internal. The endocrine system refers to glands and structures that secrete hormones into the bloodstream, such as the pancreas secreting insulin into the bloodstream
Endocrinologist	Specialist doctor who manages diabetes and conditions related to hormones and organs that produce them e.g. thyroid, adrenal glands
estimated Glomerular Filtration Rate (eGFR)	Provides a measurement of how well the kidneys are functioning
Exercise Physiologist	Provides advice on exercises and plans to improve and maintain fitness and physical health

F

Fasting Bloods	When an individual is required to fast (no eating or drinking) for a certain length of time before a blood test – usually overnight or 8 hours
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G

General Practitioner (GP)	Provides holistic care for all your health needs. GPs manage and co-ordinate care for people of all ages who have simple or complex medical conditions
General Practitioner Management Plan (GPMP)	These are developed by a GP for patients with chronic medical conditions to help them to understand their health issues, goals and management strategies

H

Health Check	A general term used to describe a range of activities undertaken to help prevent, determine the risk, identify, or manage, chronic diseases. Adult Health Checks are for people 15 years and over and are claimable under Medicare every 9-12 months and aims to provide a holistic assessment of a person's health and prevention of disease. It is the role of every health professional to encourage people to get an annual health check
Hypertension	Refers to sustained high blood pressure, which over time, may lead to increased risk of heart disease and stroke. Hypertension is usually considered to be a blood pressure reading greater than 140/90 mmHg

I

Insulin A hormone produced in the pancreas controlling the level of glucose (sugar) in the blood

Ischaemic Inadequate supply of blood to an organ, or area of the body

J

Jaundice Bilirubin is produced in the liver and is a breakdown product of old red-blood cells, which may build up in the body, leading to yellowing of the skin and eyes. Jaundice may be a sign of liver failure

K

Ketones A chemical compound that builds up when the body breaks down fats and fatty acids to use as energy, because of insufficient insulin to metabolize sugar. This may occur in poorly controlled diabetes, and can lead to a medical emergency

Ketosis Occurs when ketone levels reach a dangerously high level, often in poorly controlled diabetes. Symptoms include confusion and coma

L

Lifestyle Changes Recommendations made by health professionals for people to make changes to the way they live, with the aim of preventing illness and improving health

Liver Function Tests Blood test used to investigate and monitor the health of the liver

M

Medicare Medicare is the universal health care system in Australia and provides public access to health services

N

Nephrologist Specialist doctor who manages conditions affecting the kidneys and urinary tract

Nephrology Nurse A Registered Nurse with extensive experience in kidney health, who can provide high level care and education to patients with kidney disease

Neurologist Specialist doctor for conditions affecting the brain and nervous system

Nurse Practitioner (NP) Is a Registered Nurse who has completed both advanced university study at a master's degree level and extensive clinical training to expand upon the traditional role of a Registered Nurse. NPs use extended skills, knowledge and experience in the assessment, planning, implementation, diagnosis and evaluation of care

Nutritionist Provides advice on healthy eating and food choices to improve overall health. They usually work with groups

O

'-ology/ -ologist When located at the end of a word means the 'study of', or expert in that area of study

Ophthalmologist A specialist in the diagnosis and management of eye conditions, visual system disorders and trained to perform eye surgery

Optometrist Provides eye care and testing, and management of visual conditions

P

Pancreatic Islet Cells	Tiny cells in the pancreas, secreting the endocrine hormones. A degeneration of islet cells often leads to type 2 diabetes
Pathology Collector	Takes samples of body fluids or specimens including urine and blood, to enable testing
Pharmaceutical Benefits Scheme (PBS)	Australian government program which provides access to, and subsidies for essential medications for Australians
Pharmacist	Provide health information, dispense and advise on medications, and help manage common health problems
Phosphate	Works with other minerals to help regulate the body and is involved in cell metabolism
Podiatrist	Assess and manage problems of the foot and lower limb
Point-of-care (POC) test	Is a pathology test that is performed on a small portable medical device in the clinic e.g. blood glucose test
Posterior	Further back, or behind in position; opposite to anterior
Potassium	Important element to the function and metabolism of cells in the body. High or low potassium levels can cause an irregular heartbeat
Prevention	Refers to actions to stop or mitigate against something from occurring. Prevention of chronic conditions include, regular physical activity, a nutritious diet, not smoking and limiting alcohol intake
Protein	A key nutrient that is essential for growth and repair of cellular tissue

Q

Quality Assurance for Aboriginal & Torres Strait Islander Medical Services (QAAMS)	A program that provides culturally appropriate and clinically effective diabetes management to Aboriginal and Torres Strait Islander people through the use of point-of-care testing for HbA1c and urine ACR that is conducted under a quality management framework
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R

Respiratory Specialist	Specialist doctor who manages conditions affecting the lungs, airways and breathing – some also manage sleep disorders
Rheumatologist	Specialist doctor who manages conditions affecting the joints, bones, and muscles

S

Smokerlyser	A simple handheld device able to measure carbon monoxide in the breath. Carbon monoxide is a toxic, odourless, colourless, tasteless gas. Smokerlysers can provide people with feedback about their exposure to carbon monoxide that is found in cigarette smoke
Sodium	An essential element in the body for fluid regulation and cell function. High levels of sodium may be a sign of dehydration, whilst low sodium may be a sign of salt loss or low intake
Speech Pathologist	Assess and manage problems of speech, swallowing and communication
Spirometry	A small machine/device that can be used to measure lung function, and can help with diagnosing asthma or COPD
Statins	A class of medications used in the treatment of high cholesterol and prevention of cardiovascular disease

Stress Test A stress test often involves measuring a person's heart rate and rhythm whilst exercising (on a treadmill). As part of some stress tests, images are taken of the heart while the person exercises and while they rest which can show how well blood is flowing in various parts of the heart and/or how well the heart squeezes out blood when it beats

Systolic blood pressure This is a measure of the pressure of the blood in your arteries when the heart (ventricles) is contracting. It is the first number in a BP reading, so the systolic BP for a reading of 130/80 mm Hg would be 130

T

Team Care Arrangement Arrangements made by the GP to include other health professionals as part of a multi-disciplinary team to manage and treat patients with chronic conditions or complex care needs

Transverse Crossing from side to side, lying crossways, or horizontally in anatomical position

U

Urea A breakdown product of protein and waste product excreted in urine by the kidneys. Levels increase with chronic kidney disease, but can be lowered with low protein intake

Urinary System A system of the body formed by the kidneys, ureters, bladder and urethra

V

Vascular Refers to the arteries, veins and capillaries that carry blood around the body

Veins Carry deoxygenated blood around the body and back to the heart

W

Waist Circumference Measurement of the waist, taken about 1–2 cms below the belly button and recorded in centimeters. Waist circumferences of greater than 80 cm for women and 94 cm for men, may indicate an increased risk of chronic disease, including cardiovascular disease and diabetes

X

X-ray Medical images that enable visualisation of internal bodily structures, that aid in the diagnosis of various conditions

Notes

A series of horizontal dotted lines for taking notes.

Notes

A series of horizontal dotted lines for taking notes.

Endnotes (references)

- 1 The use of Aboriginal Health Worker (AHW) in the Living Longer Stronger Resource Kit also includes Torres Strait Islander Health Workers, Aboriginal and Torres Strait Islander Health Workers, Aboriginal Health Practitioners, Torres Strait Islander Health Practitioners and Aboriginal and Torres Strait Islander Health Practitioners.
- 2 A National Aboriginal Health Strategy. 1989. Prepared by the National Aboriginal Health Strategy Working Party March 1989
- 3 NACCHO/RACGP. (2018). National guide to a preventative health assessment for Aboriginal and Torres Strait Islander people. 3rd edition. South Melbourne: The RACGP. Available from: <https://www.racgp.org.au/FSDEDEV/media/documents/Clinical%20Resources/Resources/National-guide-3rd-ed-Sept-2018-web.pdf>
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- 7 HealthStatsNSW. (updated 21 April 2020). Current asthma by Aboriginality, persons aged 16 years and over, NSW 2019. Available from: http://www.healthstats.nsw.gov.au/Indicator/res_astprev_age/res_astprev_Aboriginality
- 8 HealthStatsNSW. (updated 7 April 2020). Chronic obstructive pulmonary disease hospitalisations by Aboriginality, persons of all ages and aged 65 years and over, NSW 2018-19. Available from: http://www.healthstats.nsw.gov.au/Indicator/res_copdhos/res_copdhos_Aboriginality_trend
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- 14 Stroke Foundation. (2020). Types of Stroke. Available from: <https://strokefoundation.org.au/About-Stroke/Types-of-stroke>
- 15 RHD Australia. (n.d.). What is Rheumatic Heart Disease? Available from: <https://www.rhdaustralia.org.au/what-rheumatic-heart-disease>
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All information was correct at time of printing.