Heart disease - know your risk
Summary

- There is no single thing that causes cardiovascular disease (CVD), but there are several risk factors that contribute to it.
- You can reduce your risk of developing CVD by choosing healthy foods, quitting smoking, being physically active, managing conditions such as high cholesterol, high blood pressure, diabetes and depression, managing your weight and avoiding social isolation.
- Take medicines as prescribed by your doctor.

Heart disease (cardiovascular disease, or CVD) is the leading single cause of death in Australia. 19,077 deaths were attributed to heart disease in Australia in 2016. Cardiovascular disease can occur when arteries that supply blood and oxygen to your heart muscle and other organs (such as the brain and kidneys) become clogged with fatty material called plaque or atheroma. This process is called atherosclerosis. It can start when you are young and be well advanced by the time you reach middle age.

If your arteries become too narrow, less blood can reach your heart muscle. This may lead to symptoms such as angina (chest pain). If a blood clot forms in the narrowed artery and completely blocks the blood supply to part of your heart, it can cause a heart attack.

There is no single thing that causes cardiovascular disease (CVD), but there are several risk factors that contribute to it. Risk factors for CVD include:

- unhealthy eating
- overweight or obesity
- physical inactivity
- smoking
- high cholesterol
- high blood pressure
- diabetes
- depression
- social isolation and lack of social support
- age
- being male
- having a family history of CVD.

Aboriginal and Torres Strait Islander peoples are also at increased risk of CVD.

Understanding your heart and stroke risk score

In the past, your doctor may have measured and treated each of your heart disease risk factors one at a time. It is now recommended that your overall risk be assessed to determine your personal heart disease and stroke-risk score.

Your risk score puts many of the risk factors together. This is a bit like putting all the pieces of a puzzle together so you can see the whole picture. By looking at the whole picture, your doctor can discuss ways you can reduce your risk of stroke or heart attack.

However, if you are already known to be at high risk (for example, if you have had a previous heart attack or stroke, you have severe kidney disease, very high blood pressure or you have diabetes and you are over 60 years old), a risk score will not need to be calculated. Risk reduction strategies include medications, surgery and lifestyle changes.

Heart disease risk factors

There is no single cause for CVD, but there are risk factors that increase your chance of developing it. There are modifiable risk factors (ones that you can change) and non-modifiable risk factors (ones that you can’t change).

Heart disease risk factors that you can change include:

- poor diet
- smoking
- high total cholesterol
- high blood pressure
- management of diabetes
- being physically inactive
- being overweight or obese
- management of depression.
Social isolation and lack of social support are risk factors for heart disease that are usually able to be changed, although it can seem challenging to do so. Read more about how you can take steps to improve your social connections.

Risk factors that you can’t change include increasing age, being male and having a family history of heart disease. Aboriginal and Torres Strait Islander peoples are also at increased risk of CVD.

The good news is that you can reduce your overall risk of developing CVD by leading a healthy lifestyle and taking medicines as prescribed by your doctor.

**Smoking and heart disease risk**

As well as causing cancer, **smoking** affects the arteries that supply blood to your heart and other parts of your body. It reduces the amount of oxygen in your blood and damages your artery walls. Smoking increases your risk of heart attack, stroke and peripheral arterial disease (which can lead to gangrene and limb amputation).

Smoking makes your blood ‘stickier’, causing blood cells to clump together. This slows blood flow through your arteries and makes blockages more common. Blockages may cause heart attack and stroke.

Smoking also makes your artery walls sticky, causing them to become clogged with fatty material called plaque or atheroma. Smokers often have cold hands or feet as a result of clogged arteries, which may also lead to serious problems such as gangrene.

If your coronary artery becomes clogged, it can cause angina. If a blood clot forms in the narrowed coronary artery and completely blocks the blood supply to a part of your heart, it can cause a heart attack.

**Cholesterol and heart disease risk**

Cholesterol is a fatty substance produced naturally by your body (blood cholesterol). It is used for many different things in your body, but is a problem when there’s too much of it in your blood.

High total cholesterol causes fatty material to gradually build up in coronary arteries, making it harder for blood to flow through. It is mainly caused by eating foods high in saturated fats and trans fats.

Your total cholesterol includes two types of cholesterol, which are:

- **low-density lipoprotein (LDL)** – also known as ‘bad’ cholesterol because it can add to the build-up of plaque in your arteries and increase your risk of getting CVD
- **high-density lipoprotein (HDL)** is also known as ‘good’ cholesterol because it helps to protect you against CVD.

Most of the total cholesterol in your blood is made up of ‘bad’ LDL cholesterol. Only a small part is made up of ‘good’ HDL cholesterol.

You should aim for low LDL cholesterol and higher HDL cholesterol.

**Blood pressure and heart disease risk**

**Blood pressure** is the pressure of the blood in your arteries (the blood vessels that carry oxygen and nutrients to your body) as it is pumped around your body by your heart. Blood pressure depends on two main things: the amount of blood pumped by your heart and how easily the blood can flow through your arteries.

Your blood pressure will go up and down throughout the day, depending on the time of day and what you are doing. However, high blood pressure is a condition where your blood pressure is consistently high.

Your family history, eating patterns, alcohol intake, weight and level of physical activity have a strong influence on blood pressure. In some people, medicines, including the oral contraceptive pill, contraceptive ‘depot’ injections, steroids (cortisone-like medicines) and arthritis medicines, can also raise blood pressure.

High blood pressure can overload your heart and coronary arteries, and speed up the artery-clogging process. This can lead to problems such as heart attack and stroke.

High blood pressure can also affect arteries to other parts of your body, such as the eyes, kidneys and legs.

If high blood pressure is not treated, your heart may weaken because of the constant extra demand. This may cause ‘heart failure’, a serious condition with symptoms such as tiredness, shortness of breath and swelling of the feet and ankles.

**Diabetes and heart disease risk**

People with diabetes are at greater risk of heart attack, angina and stroke. Similarly, people with CVD are more prone to type 2 diabetes. For people with both diseases, the risk of heart attack and stroke is higher than for those without them.

The reported increase in diabetes in Australia is thought to be associated with more people being physically inactive, having bad eating habits and being overweight. The two main types of diabetes are:

- **type 1** – previously known as insulin-dependent or juvenile-onset diabetes
- **type 2** – previously known as non-insulin-dependent or mature-onset diabetes.

If you have diabetes, it is important that you manage your condition by being physically active, choosing healthy foods and maintaining a healthy weight.

If you have type 2 diabetes, you may need to take medicines to help you to maintain normal blood-glucose levels, as well as making lifestyle changes.

It is also important to stop smoking, reduce your total cholesterol, manage your blood pressure and regularly see your doctor for diabetes reviews.

**Being overweight and heart disease risk**

Being overweight or **obese** increases your risk of a number of health problems, including:

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Healthy eating and heart disease risk

Eating a variety of foods promotes good health and can help reduce the risk of disease, including heart disease. The best starting point is to eat a wide variety of foods from each of the five food groups, in the amounts recommended. This helps maintain a healthy and interesting diet, and provides a range of different nutrients to the body.

The five food groups are:

- fruit
- vegetables and legumes/beans
- lean meats and poultry, fish, eggs, tofu, nuts and seeds, legumes/beans
- grain (cereal) foods, mostly wholegrain and high fibre varieties
- milk, yoghurt, cheese and alternatives, mostly reduced fat.

To reduce heart disease risk, the Heart Foundation recommends:

- eating a variety of foods from the five food groups, and limiting sugary, fatty and salty take-away meals and snacks
- including vegetables, wholegrains, fruit, nuts and seeds every day
- choosing healthier fats and oils such as olive or canola oil, nuts, seeds, fish and avocado
- using herbs and spices for flavour instead of salt
- drinking mainly water.

Physical activity and heart disease risk

Physical activity is an important part of looking after your health and reducing your risk of CVD. Regular physical activity will:

- improve your long-term health
- reduce your risk of heart attack
- give you more energy
- help you to manage your weight
- help you to achieve healthier total cholesterol
- lower your blood pressure
- make your bones and muscles stronger
- make you feel more confident, happy and relaxed
- help you to sleep better.

If you have had a heart attack, regular physical activity will help you to recover more quickly. If you have diabetes, it will also help you to manage your blood-glucose levels.

Physical activity doesn’t have to be strenuous. Moderate-intensity physical activity, such as brisk walking, is great for your health. It is recommended that you do 30–45 minutes of moderate-intensity physical activity on most, if not all, days of the week. You can do this in smaller bouts, such as three 10-minute walks, if it is easier.

Depression and heart disease risk

Studies have shown that people with depression, people who are socially isolated, and people who do not have quality social support are at greater risk of developing CVD. Depression can be treated with medical and non-medical therapies. If you think that you have depression, talking to your health professional is the best first step.

Family history and heart disease risk

A person’s family history of disease (their genes) can increase their tendency to develop:

- high blood pressure
- high cholesterol
- diabetes
- a particular body shape.

Although having a family history of CVD is a risk factor, it does not mean that you definitely will develop it. However, if you do have a family history of CVD, it is important to reduce or remove your other risk factors. For example, limit the amount of saturated fats and trans fats you eat, do not smoke, and lead an active, healthy lifestyle.

Gender, age and heart disease risk
Generally, men have a higher risk than women of developing CVD in middle age. The risk rises as they get older.

However, the risk of developing CVD is an important issue for women, especially as they get older. It is not clear why women tend to get CVD at a later age than men, although it is likely that hormonal changes after menopause, combined with changes in their risk factors, play a role.

Despite your gender and age, you can reduce your risk of developing CVD if you follow a healthy lifestyle and take medicines as prescribed by your doctor.

**Where to get help**

- Your GP (doctor) or other health professional
- Heart Foundation Hotline Tel. 13 11 12
- Community health centre
- Diabetes Victoria Tel. 1300 437 386

**References**

- Food and nutrition position statements. Heart Foundation.
Heart basics

Heart explained
The heart is about the size of a clenched fist and lies in the middle of your chest, behind and slightly to the left of your breastbone...

Circulatory system
The heart, blood and blood vessels work together to service the cells of the body...

Blood pressure
Healthy eating and lifestyle changes can help to manage high blood pressure...

Chest pain
If in doubt about the cause of your chest pain, call an ambulance...

Heart attack
Heart attack is an emergency. If you have warning signs of heart attack, get help fast. Call triple zero (000) and ask for an ambulance...

Heart attack - it's Ok to Call Triple Zero (000) (video)
Heart attack warning signs aren't what you think. Symptoms vary and may not always be severe. Learn the warning signs because the sooner you recognise your heart attack and get treatment, the...

Heart disease and stroke
Although blocked blood vessels can cause both coronary heart disease and some types of stroke, stroke is not the same as heart disease...

Heart health - managing heart disease for life (video)
Over 700,000 Australians are living with coronary heart disease. Learn about what you should know about managing heart disease...

Know your risks for heart disease

Heart health check - learn the risk factors (video)
Heart disease affects both women and men. Cardiologist Cathie Coleman from St Vincent's Hospital explains the risk factors for heart disease and what actions you can take to lower your risks..
Heart disease - know your risk

Risk factors for heart disease include smoking, diabetes, obesity, family history and age.

Heart disease and stroke - your risk score

Absolute risk is a measure your doctor can calculate to understand the likelihood of you experiencing a heart attack or stroke in the next five years.

Diabetes - long-term effects

The risk of most diabetes-related complications can be reduced.

Smoking and heart disease

A smoker's excess risk of heart attack reduces rapidly after only one year of not smoking.

Heart disease and mental health

Did you know that your mental health can affect your heart health and your heart health can affect your mental health? Depression can also affect how well people with heart disease recover.

Cholesterol

Your body needs cholesterol, but it can make its own. You don't need cholesterol in your diet.

Blood pressure - keep your blood pressure down (video)

Heart Foundation of Australia warns of the risk of high blood pressure and tells you what you can do to keep your blood pressure down.

Heart disease - know and manage your risk factors (video)

Over 700,000 Australians are currently living with coronary heart disease. There are actions you can take to help prevent heart disease and to manage your life after a heart attack.

Health check

This health assessment questionnaire will identify which zones of your lifestyle are contributing to your personal health risk and provide actions you can take to make positive change.

Blood pressure (high) - hypertension

Hypertension, or high blood pressure, can increase your risk of heart attack, kidney failure and stroke.

Heart attack warning signs and symptoms

Heart attack - know the warning signs (video)

Learn about the warning signs and symptoms you may experience if you are having a heart attack or angina attack.

Heart attack warning signs - personal story - Katie (video)

Heart attack warning signs - personal story - Kate

Heart attack warning signs - Professor Ian Meredith (video)

With a heart attack every minute counts. The warning signs of a heart attack can be varied and may not always be sudden or severe. Find out more from cardiologist Professor Ian Meredith.

Heart disease - Jo, 5 stents in her 40s and a triple bypass at age 57 (video)

Jo tells of her experience with heart disease including having 5 stents in her 40s and a triple bypass at age 57.

Heart disease - Marina, Pulmonary Emboli at age 23 (video)

Heart disease - Marina, Pulmonary Emboli at age 23

Heart attack warning signs - personal story - Danny (video)

Heart attack warning signs aren't what you think. Symptoms vary and they may not always be severe. Hear Danny's story about his heart attack.

Heart attack - it's Ok to Call Triple Zero (000) (video)

Heart attack warning signs aren't what you think. Symptoms vary and they may not always be severe. Learn the warning signs because the sooner you recognise your heart attack and get treatment, the...

Heart disease - Margaret, Heart Attack at age 35 (video)

Heart disease - Margaret, Heart Attack at age 35.

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• **Chest pain**
  
  If in doubt about the cause of your chest pain, call an ambulance...

**Keep your heart healthy**

• **Heart disease - know your risk**
  
  Risk factors for heart disease include smoking, diabetes, obesity, family history and age...

• **10 tips for a healthier heart**
  
  Have fun with friends ... 10 tips for a healthier heart...

• **Heart disease and stroke - your risk score**
  
  Absolute risk is a measure your doctor can calculate to understand the likelihood of you experiencing a heart attack or stroke in the next five years...

• **Cholesterol - healthy eating tips**
  
  Replacing foods that contain saturated fats with foods that contain polyunsaturated and monounsaturated fats will help to lower your cholesterol...

• **Heart disease and food**
  
  A diet low in saturated fats and high in fibre and plant foods can substantially reduce your risk of developing heart disease...

• **Heart disease and mental health**
  
  Did you know that your mental health can affect your heart health and your heart health can affect your mental health? Depression can also affect how well people with heart disease recover, and...

• **Heart disease - eating for a healthy heart (video)**
  
  Learn the three steps you can take to improve your heart health today...

• **Heart health - managing heart disease for life (video)**
  
  Over 700,000 Australians are living with coronary heart disease. Learn about what you should know about managing heart disease...

• **How to cut down on salt (slideshow)**
  
  Even if you are careful about the salt you consume, you may be surprised that some of the food you eat contains hidden salt that you’re not even aware of. Learn how to cut down on salt...

• **Reduce your risk of early death**
  
  You can dramatically reduce your risk of early death by making a few simple lifestyle changes...

• **Walking for good health**
  
  Walking will improve your fitness and reduce your risk of heart disease...

**Heart conditions**

• **Heart condition - know your diagnosis (video)**
  
  This video explains some common heart procedures and provides questions to ask your doctor to ensure you understand what has happened to your heart...

• **Aortic stenosis**
  
  Aortic stenosis may be congenital (present from before birth), but is often diagnosed during teenage years...

• **Congestive heart failure (CHF)**
  
  Congestive heart failure is present when the heart cannot pump enough blood to satisfy the needs of the body...

• **Heart abnormality birth defects**
  
  Some congenital heart defects are mild and cause no significant disturbance to the way the heart functions...

• **Heart arrhythmias and palpitations**
  
  A heart that beats irregularly, too fast or too slow, is experiencing an arrhythmia...

• **Heart attack**
  
  Heart attack is an emergency. If you have warning signs of heart attack, get help fast. Call triple zero (000) and ask for an ambulance...
Heart attack warning signs - personal story - Katie (video)

Heart attack warning signs - personal story - Kate...

Heart conditions - angina

Angina attacks can be prompted by exertion or physical exercise, when the hard-working heart muscle requires greater amounts of oxygen...

Heart conditions - atrial fibrillation

Atrial fibrillation (AF) is a type of arrhythmia, which means that the heart beats fast and abnormally...

Heart conditions - endocarditis

Endocarditis is an infection of the heart valves or the inner lining of the heart...

Heart disease and stroke

Although blocked blood vessels can cause both coronary heart disease and some types of stroke, stroke is not the same as heart disease...

Heart disease - enlarged heart

An enlarged heart isn't a condition in itself, but a symptom of an underlying problem that is causing the heart to work harder than normal...

Heart disease - Jo, 5 stents in her 40s and a triple bypass at age 57 (video)

Jo tells of her experience with heart disease including having 5 stents in her 40s and a triple bypass at age 57...

Heart disease - Margaret, Heart Attack at age 35 (video)

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Heart disease - Marina, Pulmonary Emboli at age 23...

Heart disorders (acquired) - children

Some children acquire a heart problem after an illness in childhood, and this is called an acquired heart defect...

Heart health check - learn the risk factors (video)

Heart disease affects both women and men. Cardiologist Cathie Coleman from St Vincent's Hospital explains the risk factors for heart disease and what actions you can take to lower your risks...

Heart murmurs

Many children have innocent heart murmurs that don't require any treatment, but medical tests are often needed to check...

Long QT syndrome

You should be investigated for long QT syndrome if you faint for no apparent reason, during or after exercise or emotional excitement...

Metabolic syndrome

Metabolic syndrome is a collection of conditions that can increase your risk of diabetes, stroke and heart disease...

Noonan syndrome

Noonan syndrome is a genetic condition that usually includes heart abnormalities and characteristic facial features...

Pericarditis

Pericarditis symptoms may be similar to those of heart attack and include chest pain and abnormal heart rhythms...

Rheumatic heart disease

Stopping episodes of recurrent ARF can prevent rheumatic heart disease (RHD)...

Wolff-Parkinson-White syndrome

Wolff-Parkinson-White syndrome is characterised by attacks of rapid heart rate or tachycardia...

Tests and treatments

Blood pressure (high) - hypertension

Hypertension, or high blood pressure, can increase your risk of heart attack, kidney failure and stroke...

Cardiopulmonary resuscitation (CPR)

CPR is a life-saving skill that everyone should learn from an accredited organisation...
Coronary angiogram
A coronary angiogram is the most accurate diagnostic test for a range of heart problems, including coronary heart disease.

ECG test
A doctor may recommend an electrocardiogram for patients who may be at risk of heart disease because of family history, smoking, overweight, diabetes or other conditions.

Heart disease - angioplasty and stent procedures (video)
People with coronary heart disease talk about the medical procedures that followed their heart attack and diagnosis.

Implantable cardiac devices
A person with an artificial cardiac pacemaker can live a normal life and can still perform moderate to strenuous activities.

Organ and tissue transplantation
Transplantation varies depending on the transplant organ or tissue so speak with your medical team about surgical procedures, recovery and medications.

Recovery after a heart attack

Recovering from a heart attack
Make sure you follow your plan when you leave hospital, take your medication and keep your appointments with doctors.

Living with a heart condition
Attending cardiac rehabilitation will help you to create a good foundation for living with your heart condition.

Heart condition - know your diagnosis (video)
This video explains some common heart procedures and provides questions to ask your doctor to ensure you understand what has happened to your heart.

Heart disease - know and manage your risk factors (video)
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Heart disease - Margaret, Heart Attack at age 35 (video)
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Related Information

Diabetes
Diabetes is a chronic condition marked by high levels of glucose (sugar) in the blood. More about types of diabetes, how to prevent diabetes and how to manage the condition.

Body mass index calculator for children and teenagers
This calculator measures body mass index (BMI), which is a measure of body fat. It is only an approximate measure of the best weight for your health. The calculator can be used for anyone from two to...

Heart disease and stroke - your risk score
Absolute risk is a measure your doctor can calculate to understand the likelihood of you experiencing a heart attack or stroke in the next five years.

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Home

Related information on other websites

Heart Foundation.

Content Partner
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Life program

This FREE program helps you reduce the risk of diabetes, heart disease and stroke. Group or phone counselling are available.
Well for life - A healthy approach to ageing

The Department of Health and Human Services - Well for life - A healthy approach to ageing booklet (pdf)

Well for life

Medical Dictionary

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