

What is it cardiovascular disease?

Cardiovascular disease is a term used to refer to a group of disorders that affect the heart and blood vessels.

These include:

- Coronary heart disease: disease of the blood vessels supplying the heart
- Cerebrovascular disease: disease of the blood vessels supplying the brain
- Peripheral arterial disease: disease of the blood vessels supplying the arms, legs and organs throughout the body
- Atherosclerosis: the disease process that causes the development of fatty plaques in the walls of arteries, which can lead to narrowing of the vessel and/or breakdown of the arterial wall
- Rheumatic heart disease: caused by damage to the heart muscle and valves during rheumatic fever
- Congenital heart disease: problems caused by abnormal development of the heart
- Deep vein thrombosis (blood clots) and pulmonary embolism (a blood vessel blockage in the lungs)
- Arrhythmia (abnormal heart rhythm)
- Heart failure (weakness of the heart muscle so that it can't pump blood around the body properly)
- Hypertension (high blood pressure)

Heart attacks and strokes are events that occur as a result of underlying cardiovascular disease. Cardiovascular disease is the leading cause of illness and death worldwide¹.

Cardiovascular disease affects around 1 in 17 Australian males overall but becomes more common as you get older².

Cardiovascular disease is responsible for 11% of hospital admissions in Australia, mostly in people aged over 55 years. More than 1 in 4 Australian deaths are caused by cardiovascular disease.

Aboriginal and Torres Strait Islander people are 50% more likely than non-indigenous Australians to die or need hospitalisation because of cardiovascular disease.

Symptoms of cardiovascular disease

Cardiovascular disease may have no symptoms, so you don't even know you have it until you have a heart attack or stroke.

Symptoms of a heart attack in men are most often intense chest pain, pain in the left arm or jaw, and difficulty breathing.

Signs of stroke are a weakness of facial muscles and/or arms and problems with speaking or understanding.

Depending on the type of cardiovascular disease you have, symptoms may include:

- Pain, tightness, pressure, or discomfort in the chest
- Pain, weakness, or numbness in your arms and/or legs
- Pain or discomfort in your arms, neck, shoulder, jaw, or back
- Shortness of breath
- Tiring easily during activity
- Abnormal heart rhythm
- Dizziness, lightheadedness, or fainting
- General weakness or fatigue
- Swelling in the hands, legs, ankles, or feet
- Fever
- Rashes or spots on your skin
- A cough that is dry or doesn't go away.

Causes of cardiovascular disease

The processes in the body that cause cardiovascular disease are not entirely understood, but abnormal structure and function of the blood vessels seem to be the first sign^{3,4}. High blood pressure and abnormal levels of cholesterol in the blood certainly cause symptoms of cardiovascular disease to get worse, and successful treatment of these problems reduces the risk of heart attack or stroke.

Heart attacks are caused by a blockage in one (or more) of the arteries that supply the heart muscle. The lack of blood flow causes the heart muscle cells to die, resulting in lasting damage.

Strokes are caused by a blockage in arteries supplying blood to the brain or bleeding in the brain. There is a range of lifestyle and health factors that affect your risk of cardiovascular disease, including nine modifiable risk factors (factors you can change) that account for more than 90% of the global risk of heart attack⁵.

The factors associated with reduced risk of heart attack are:

- [Getting enough exercise](#)
- Eating enough fruit and vegetables
- Consuming moderate amounts of alcohol

The factors associated with increased risk of heart attack are:

- Abnormal cholesterol levels
- [Diabetes](#)
- Obesity
- Hypertension (high blood pressure)
- Smoking
- Stress and depression.

Research studies have found several other factors associated with a higher-than-normal risk of cardiovascular disease⁶, but these aren't always considered by health professionals. Examples include levels of various inflammatory proteins and periodontal (gum) disease.

[Loneliness and social isolation](#) increase the risk of developing cardiovascular disease and are associated with worse disease outcomes and earlier death from cardiovascular disease.

One important risk factor for cardiovascular disease that is specific to men is [erectile dysfunction](#)⁷. Men who have problems with getting or keeping an erection are more likely to have cardiovascular disease than men with normal erectile function, independently of other factors.

Erectile dysfunction usually occurs three to five years before coronary heart disease⁸. This means there's time after erectile dysfunction starts for men to take action to prevent heart attacks and other effects of cardiovascular disease. The way we develop before we are born seems to influence our risk of cardiovascular disease⁸. For example, people born with low birth weights tend to have higher blood pressure later in life than people born with normal birth weights. This doesn't mean there's nothing you can do after you're born to minimise your risk of cardiovascular disease. It does mean that you can help to minimise your children's risk of cardiovascular disease by remaining healthy yourself because your health influences the health of your sperm⁹.

Diagnosis of cardiovascular disease

To diagnose cardiovascular disease, your doctor will look at your medical and family history, perform some tests (e.g. blood tests), and examine you (e.g. measure your blood pressure) to investigate if you have any known risk factors.

Your doctor may use an online risk assessment tool like the Australian absolute cardiovascular disease risk calculator to assess your risk of cardiovascular disease.

Depending on the results from your initial tests, examination, and risk assessment, your doctor might order more tests, including¹⁰:

- A stress test
- A chest x-ray
- An ECG (electrocardiogram)
- An echocardiogram

- A CT scan
- An MRI scan
- Coronary angiography.

Treatment of cardiovascular disease

The way cardiovascular disease is treated depends on the type of problem, what might be causing it and how severe it is.

For most people with cardiovascular disease, treatment will include changes in diet and exercise. In some people, this may be enough to reverse or decrease the progression of their disease. Not smoking is important for avoiding cardiovascular disease. Help dealing with stress may also be part of treatment for cardiovascular disease.

Medications to reduce blood pressure, cholesterol levels, clotting and glucose levels, and to regulate the force and rate of heartbeats, are commonly used to treat cardiovascular disease.

Cardiovascular disease may require surgery or other invasive procedures to bypass blockages or open up arteries or repair diseased or damaged heart tissue or blood vessels.

Health effects of cardiovascular disease

What does cardiovascular disease mean for my health?

Cardiovascular disease is progressive. It develops slowly over time, without symptoms, until it becomes serious enough for you to notice it. Addressing the disease risk factors is necessary to reduce your chances of serious events like heart attack or stroke.

If you have had a heart attack or stroke, you'll probably need to take time for rehabilitation before you can get back to your usual level of activity. In some cases, you may not recover fully.

Cardiovascular disease is a life-threatening condition. It's responsible for more deaths than any other cause. Treatment using lifestyle changes, medications and other interventions are effective, but prevention of cardiovascular disease in the first instance should be your goal.

What does cardiovascular disease mean for my sex life?

The association between cardiovascular disease and erectile dysfunction⁸ shows that your sex life can be affected.

Symptoms of cardiovascular disease, like general weakness or fatigue, might reduce your [libido \(sex drive\)](#). You might be concerned about the safety of having sex if you have cardiovascular disease, but it's probably safe if your disease is under control¹¹. If you're recovering after a heart attack, stroke or some other cardiovascular event, you should check with your doctor that it's safe to have sex.

What to do about cardiovascular disease

If you notice any symptoms of cardiovascular disease, make an appointment to see your doctor.

There's a Medicare rebate specifically for a 20-minute heart health check, which might be appropriate for you.

Regular check-ups with your doctor to work out your risk of cardiovascular disease, and to look for signs of cardiovascular disease, can help identify cardiovascular disease early.

The association between moderate alcohol consumption and low risk of cardiovascular disease may not apply to you, so you should discuss alcohol consumption with your doctor.

Questions to ask your doctor about cardiovascular disease

- Can you help me work out my risk of cardiovascular disease?
- What can I do to lower my risk of cardiovascular disease?
- Do any of the health conditions I have affect my risk of cardiovascular disease?
- What can I do to help me keep on track with my actions to prevent, reduce or treat my cardiovascular disease?
- Is it safe for me to exercise if I have cardiovascular disease?
- Is it safe for me to have sex if I have cardiovascular disease?
- Is there a safe amount of alcohol for me to drink that won't increase my risk of cardiovascular disease?

References

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