
Heart disease and stroke

Summary

- In 2013, heart, stroke and blood vessel diseases accounted for nearly one third (30 per cent) of all deaths in Australia.
 - The biggest cause of death from heart disease and stroke is the progressive blocking of blood vessels with a build-up of fatty substances and cellular waste (plaques).
 - Plaque build-up in the arteries supplying blood to your heart muscle can trigger angina or a heart attack.
 - Plaque build-up and blood clots in arteries supplying blood to the brain can cause a stroke.
 - You can reduce your risk of heart disease and stroke by making healthy lifestyle choices and having regular medical check-ups.
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Heart disease and stroke are both types of cardiovascular disease. The cardiovascular system, also called the circulatory system, comprises the heart and all the blood vessels that pump and move blood around the body.

The condition of your cardiovascular system is to a large extent determined by your lifestyle. Although age and genetic factors play a part, much cardiovascular disease would be preventable if more Australians ate healthy food, performed more physical activity, maintained a healthy weight and blood pressure, and avoided smoking. In 2013, cardiovascular disease accounted for nearly one third (30 per cent) of all deaths in Australia, with an Australian dying every 12 minutes.

Types of cardiovascular disease

Cardiovascular disease covers a number of conditions that are related to lifestyle, including:

- coronary heart disease – either angina or heart attack (acute myocardial infarction)
- stroke – either caused by a blockage with a blood clot (called an ischaemic stroke) or the rupturing of a blood vessel and bleeding (called a haemorrhagic stroke)
- peripheral vascular disease – obstruction of the large blood vessels that supply blood to the arms and legs.

Cardiovascular disease conditions that are not related to lifestyle, include:

- acute rheumatic fever and rheumatic heart disease – caused by an untreated infection with group A streptococcus bacteria
- congenital heart disease – inherited conditions that affect the structure (such as valves) of the heart.

By far the biggest cause of deaths from cardiovascular disease is the progressive blocking of blood vessels leading to coronary heart disease and stroke.

Causes of coronary heart disease and stroke

Healthy blood vessels are flexible, but with age and unhealthy lifestyle choices, they can become thickened and stiff, and this can restrict blood flow around the body. This process is known as arteriosclerosis and is commonly called 'hardening of the arteries'.

Atherosclerosis is a form of arteriosclerosis that involves a build-up of fatty substances and cellular waste (plaques). These can either partially or totally block blood vessels, or the plaque can break open and trigger a blood clot that also blocks blood flow. Atherosclerosis can occur anywhere in the body. For example, when it occurs in the vessels leading to your arms and legs, it can cause peripheral vascular disease (PVD).

When the process of atherosclerosis occurs in the arteries that supply blood to your heart muscle (coronary heart

disease or CHD), it can trigger angina or a heart attack.

When this process occurs in arteries supplying blood to the brain, the arteries become narrow with plaques, and a blood clot can form and block the blood supply to the brain (thrombotic stroke). In other cases, a blood clot may travel from elsewhere in the body (such as the heart) and lodge in the narrowed arteries (embolic stroke).

Thrombotic stroke and embolic stroke are both causes of the most common type of stroke, ischaemic stroke. Haemorrhagic stroke, which is less common, occurs when a blood vessel in the brain breaks and bleeds.

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

Reduce the risk of coronary heart disease and stroke

You can reduce the risk of cardiovascular disease, which kills nearly one third of Australians, by making healthy lifestyle choices such as:

- Avoid smoke or smoking – smoking is a major risk factor, with nicotine directly narrowing your blood vessels.
- Eat healthy foods – especially avoid processed foods.
- Exercise and move more – speak to your doctor about exercise suitable for your needs.
- Maintain a healthy weight – exercising and eating healthy food will make this easier.
- Manage stress – try muscle relaxation, breathing techniques or visualisations.

Visit your doctor to discuss lifestyle choices that will reduce your risk of cardiovascular disease. You can also ask for advice about regular check-ups to look for early signs of medical conditions such as:

- depression
- diabetes
- high blood pressure
- high cholesterol.

Where to get help

- Your doctor
- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- St John Ambulance Australia (Victoria) Tel. 1300 360 455
- StrokeLine Tel. 1800 787 653 – for information on stroke treatment, prevention and recovery
- **enableme** - The Stroke Foundation - Get the information, tips & techniques to equip you in your stroke recovery.

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