

CARDIOVASCULAR RISKS

CARDIOVASCULAR DISEASE



The term cardiovascular disease (CVD) refers to conditions and disorders that affect the heart or blood vessels. Many of these are related to atherosclerosis, the buildup of a substance called plaque in the walls of the arteries, causing narrowing or blockage of the arteries and restriction or complete cessation of the blood flow through the vessel. This can cause heart attacks or strokes.^{1,2,3}

The causes of cardiovascular disease are complex and varied, but some lifestyle habits, including a poor diet, tobacco use, high alcohol intake, and physical inactivity, can increase associated risks.^{1,4}

Types of cardiovascular disease

There are various types of cardiovascular disease. They include^{1,2,5,6,7}:

- **Coronary heart disease.** When blood vessels carrying oxygen to the heart are narrowed or blocked, the heart is put under strain. A heart attack can occur when this happens suddenly; and heart failure can happen if the heart is unable to pump blood around the body as needed. Angina is pain in the chest and upper body caused by lack of blood flow to the muscle.
- **Cerebrovascular disease (Strokes and TIAs).** When blood supply to the brain is disrupted by blockages or clots, it can cause a stroke or a transient ischemic attack

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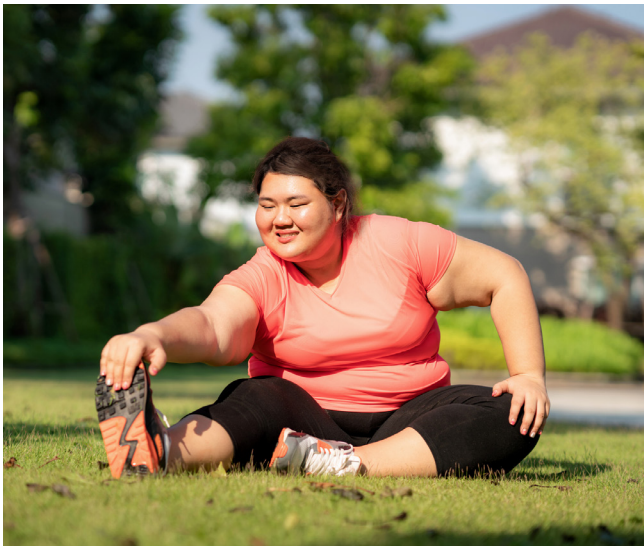
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(TIA or mini stroke). They can also be caused by a cerebral aneurysm, when bleeding in the brain occurs from a rupture of a dilated and fragile vessel. The affected parts of the brain cannot function adequately, and bodily functions regulated by these damaged parts of the brain can be impaired as a result. Some effects are permanent, while others can be temporary.



- **Peripheral arterial disease.** This affects limbs, often the legs, when they receive insufficient blood because of arterial narrowing or blockages.
- **Arrhythmia.** Bradycardia, when your heart beats too slow, and tachycardia, when it beats too fast, can lead to your heart not functioning as well as it should, and not being able to pump as much blood as needed by the rest of your body.
- **Aortic disease.** The aorta is the body's biggest blood vessel. It transports blood from the heart to the rest of your body. Diseases affecting the aorta include aortic aneurysms and aortic dissection.
- **Heart valve and heart muscle problems (rheumatic or degenerative).** Heart valves control the direction of blood in and out of your heart. Malfunctioning valves can lead to problems with circulation.
- **Congenital heart disease.** Structural malformation of the heart existing at birth.
- **Deep vein thrombosis and pulmonary embolism.** This is a condition where blood clots form in the leg veins, dislodge, and move to the heart and lungs.



Primary causes of cardiovascular disease

There are various factors that can contribute to cardiovascular disease. Some of these risk factors cannot be regulated; others can be controlled. The more risk factors you have, the higher chance you have of developing cardiovascular disease.

Factors that can be regulated and controlled include^{1,4,8,9,10}:

- **Hypertension (high blood pressure).** When your blood pressure is high, your heart has to work more to be able to pump blood all round your body. Hypertension also may damage the blood vessels. Hypertension can lead to greater risk of heart attacks, heart failure, and strokes.
- **Physical activity.** Being active helps reduce blood pressure, blood lipid levels, and excessive body weight. Incorporating physical activity into your lifestyle on a regular basis can help reduce your risk of coronary heart disease by up to 30%.

- **Tobacco use.** Smoking damages blood vessels, increases clotting, increases fatty deposits in arteries, and speeds up the heart rate and raises blood pressure.
- **Alcohol intake.** Consuming large quantities of alcohol can cause hypertension, increase body weight, damage heart muscle, and increase risk of both strokes and arrhythmias.
- **Diet.** Being overweight or obese and having an unhealthy diet, particularly diets high in fat and sodium, can increase CVD risks.
- **Diabetes.** High blood sugar levels, associated with diabetes, can harm blood vessels.
- **Stress and/or depression.** High stress can increase risks of hypertension, and can also lead to lifestyle choices such as excessive alcohol consumption, an unhealthy diet, and smoking, that can damage heart functions.
- **High cholesterol.** High levels of cholesterol, the fatty substance found in blood, can lead to narrowed blood vessels and a higher risk of clotting.



Other factors that are largely out of a person's control include^{1,4}:

- **Age and gender.** CVD is more likely later in life; and more common among men than women. However the risk for cardiovascular diseases in women increases after menopause.
- **Family history.** People with a family history of cardiovascular disease are thought to be at higher risk.
- **Ethnicity.** It has been found that people of African or Asian descent have a greater risk of CVD.
- **Socioeconomic status.** A low income has been linked to increased risk of heart attacks and strokes.



Prevention

Altering your lifestyle to counteract risk factors can help prevent the onset of cardiovascular diseases. Recommendations include quitting smoking, following a balanced diet, getting regular exercise, maintaining a healthy weight, manage stress and limiting alcohol intake. In some cases medication is prescribed to ward off CVD; or to reduce risk of a second incident.^{1,2}

Treatment

Treatment options recommended depend on the type of cardiovascular disease suffered. Lifestyle changes are usually advised. If you have a particularly high risk of developing CVD, your GP may recommend taking medication to reduce your risk. Surgery may also be recommended.^{2,11}

Questions about your diagnosis?

Unsure which treatment is right for you?

Did you know you have access to a free, independent and confidential decision support service?

Discuss your concerns and have your case reviewed by a specialist in your condition.

The decision is yours. And we're with you all the way.



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