

Stroke and high blood pressure

High blood pressure (hypertension) is the most significant known risk factor for stroke. Blood pressure is a measurement of the force exerted on the artery walls by the pumping blood. If you have high blood pressure, your blood is pumping harder than it should and this puts unnecessary strain on the vessels of the circulatory system.

Hypertension is often called 'the silent killer' because most people don't even realise they have it. A person with high blood pressure may have no symptoms of the condition at all, so regular medical check-ups are important. High blood pressure can be mild, moderate or severe. Hypertension also contributes to other serious and potentially life-threatening conditions, including heart attack, heart failure and kidney disease. Untreated hypertension can also cause permanent eye damage.

Measuring blood pressure

Two measurements are taken when assessing blood pressure:

- **Systolic** – the pressure inside the artery as a pulse of blood arrives from the heart. The upper limit of normal is 140.
- **Diastolic** – the resting pressure inside the artery between pulses. The upper limit of normal is 90.

Normal blood pressure is around 120/80, while high-normal blood pressure is 120/80 to 140/90. High blood pressure is when your blood pressure is consistently over 140/90. This is called 'hypertension'. A person with untreated hypertension is four times more likely to have a stroke than someone whose blood pressure falls within the healthy range.

The effects of high blood pressure

High blood pressure can increase the risk of stroke in different ways. It can:

- Accelerate the effects of atherosclerosis, a condition characterised by a narrowing of the arteries due to the build-up of fatty plaques
- Dislodge cholesterol plaques from the artery walls, which can then block blood flow to the brain (embolic stroke)
- Weaken artery walls, leading to vessel breakage and bleeding into the brain (haemorrhagic stroke)
- Thicken and stiffen the artery walls due to the constant stress load
- Cause a haemorrhagic stroke in people born with rare malformations of the blood vessels in the brain.

Risk factors of stroke

High blood pressure is caused by a combination of different factors, some of which include:

- A diet high in fat and salt
- Obesity
- Lack of exercise
- Cigarette smoking
- Chronic stress
- Heavy drinking
- High blood cholesterol levels
- Hereditary factors

- Advancing age
- Gender (men are at higher risk)
- Diabetes.

Healthier choices can reduce your risk

Some factors, such as age, gender and family history, are impossible to change. However, you **can** control high blood pressure and reduce your risk of stroke if you:

- Make healthy diet and lifestyle choices
- Lose weight
- Give up smoking
- Limit alcohol consumption
- Exercise regularly
- Use stress management techniques.

Medications are available but, while drugs can lower your blood pressure, they can't cure the condition. It is important to discuss your options with your doctor and work to reduce your blood pressure under supervision.

Where to get help

- Your doctor
- An accredited practising dietitian, contact the Dietitians Association of Australia.
- National Stroke Foundation StrokeLine Tel. 1800 787 653

Things to remember

- High blood pressure is the leading risk factor for stroke.
- There are often no obvious symptoms of high blood pressure. Regular medical check-ups are important.
- Treatment options include diet and lifestyle changes and may also include medication.

This page has been produced in consultation with, and approved by:

National Stroke Foundation

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