

## Stroke - the risk factors

Stroke is the interruption of blood to the brain. This may be due to blockage of a blood vessel in the brain or rupture of a blood vessel, causing bleeding in the brain or into the space surrounding the brain. The most common type of stroke is ischaemic caused by a blood clot blocking an artery or blood vessel. The brain cells in the immediate area die and those in the surrounding areas are affected by the reduced blood flow. Once brain cells die, their functions die with them.

Stroke is the second most common cause of death in Australia – around 60,000 strokes happen every year. Stroke is influenced by different risk factors. Some of these – age, gender and family history – are beyond your control. However, you can substantially reduce your overall risk by making healthy changes to your diet and lifestyle.

### High blood pressure and strokes

Blood pressure is a measurement of the force your blood puts on blood vessel walls as it travels through your body. High blood pressure is medically known as 'hypertension' and is one of the most important risk factors in stroke.

Normal blood pressure is around 120/80. High-normal blood pressure is between 120/80 and 140/90. If your blood pressure is consistently over 140/90, you have high blood pressure. The levels for normal blood pressure are a guide only. In general the lower your blood pressure, the lower your risk of stroke. Your doctor can talk to you about your blood pressure and risk of stroke and may recommend treatment if required.

You can control hypertension by reducing your weight, exercising regularly, eating a healthy balanced diet, and taking antihypertensive medication (if necessary).

### Cigarette smoking

Smoking can double or even quadruple your risk of stroke. Some of the chemical ingredients in cigarette smoke (such as nicotine and carbon monoxide) accelerate the process of atherosclerosis (narrowing of arteries).

Clots are more likely to form because smoking thickens the blood and makes clotting factors, such as platelets, much more 'sticky'. Cigarette smoke forces arteries to constrict – a narrowed diameter makes it harder for the thickened blood to move through the vessels which can increase blood pressure and reduce oxygen in the blood. Seek advice on how to quit smoking by calling the Quitline.

### Diabetes

Diabetes can damage your entire circulatory system and is a risk factor for stroke. Diabetes is a chronic condition in which the body is unable to utilise blood sugar. A person with diabetes is around twice as likely to have a stroke as someone of the same gender and age who doesn't have diabetes. This is because the high blood sugar levels contribute to the development of atherosclerosis (narrowing of arteries).

It is very important that diabetes be kept under control. Type 1 usually occurs from a young age and is treated with insulin injections. Type 2 usually occurs from 30 years of age onwards and is treated with either tablets or, in some cases, insulin. Talk to your doctor about controlling diabetes if you are diabetic.

### High cholesterol and stroke

High cholesterol is a contributing factor to blood vessel disease, which often leads to stroke. High blood cholesterol contributes to the formation of a substance called atheroma, which sticks to artery walls and leads to atherosclerosis (narrowing of arteries).

To reduce cholesterol in your blood, eat foods low in saturated fat. Choose lean meats and low fat dairy products. Your doctor may prescribe medication to lower your cholesterol but diet changes and exercise are still important.

## **Obesity and stroke**

Being overweight or obese can increase the risk of stroke. Too much body fat can contribute to high blood pressure and high cholesterol and may lead to heart disease and type 2 diabetes. If you are unable to maintain your weight within recommended levels, ask a doctor or nutritionist for help.

## **Alcohol and stroke**

Your risk of stroke may be reduced with moderate alcohol intake (one to two glasses a day). However, people who drink heavily are three times more likely to have a stroke, regardless of their age. It is important to limit your alcohol intake.

## **Diet and exercise to reduce risk of stroke**

Various studies show that diet is an important risk factor in the development of stroke. To reduce your risk of stroke you should:

- Limit or moderate salt intake. Check a food's sodium (salt) content in the list of ingredients on the label (low salt food has a level of less than 120mg/100g).
- Choose fresh rather than processed foods.
- Increase your intake of vegetables, fruit and whole grains.
- Cut out or reduce sugary and fatty foods like cakes, lollies and junk food.
- See a dietitian who can help you plan a well-balanced diet.

A sedentary lifestyle increases the likelihood of obesity, high blood pressure and high blood cholesterol levels. These are all important risk factors for stroke. A good balance between exercise and food intake is important to maintain a healthy body weight.

Try to build up to at least 30 minutes of moderate physical activity most days of the week. Talk to your doctor about an exercise program – people with high blood pressure should avoid some types of exercises.

## **Irregular pulse (atrial fibrillation)**

You are more at risk of stroke if you have an irregular pulse due to the condition atrial fibrillation (AF). Your doctor can diagnose this condition and advise you on how best to manage this if it happens. If you experience symptoms such as palpitations, weakness, faintness or breathlessness, it is important to see a doctor for diagnosis and treatment.

## **TIA or transient ischaemic attack**

A transient ischaemic attack (TIA) is often called a 'mini stroke'. It is a powerful warning that a severe stroke may follow. The symptoms are identical to those of a full stroke, but disappear in a few minutes and last no longer than 24 hours.

A TIA can appear hours, days, weeks or months before a full stroke but is more common within days or a few weeks. Just like full strokes, TIAs need emergency treatment and should not be ignored.

## **Risk factors beyond your control**

Stroke is influenced by some risk factors that are outside a person's control. These include:

- Age – the majority of people who suffer from stroke are 65 years or older.
- Gender – men are at higher risk than women.

- Family history – a family history of stroke or heart disease may make you more susceptible to stroke.

## Statistics on stroke

Australians will suffer more than half a million strokes in the next ten years:

- One in three people die within a year of having a stroke.
- Stroke kills more women than breast cancer.
- Almost one in five people who experience a stroke are under the age of 55.
- Men are more likely to suffer a stroke and at a younger age.

## Where to get help

- Your doctor
- An accredited practising dietitian, contact the Dietitians Association of Australia.
- National Stroke Foundation StrokeLine Tel. 1800 787 653
- Quitline Tel. 13 7848 (13 QUIT)

## Things to remember

- Stroke may occur due to blockage of a blood vessel in the brain or rupture of a blood vessel, causing bleeding in the brain or into the space surrounding the brain.
- Many strokes are avoidable and can be caused by unhealthy diet and lifestyle choices.
- Some of the major risk factors for stroke include high blood pressure, cigarette smoking and diabetes.

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

National Stroke Foundation

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