

## What is a stroke?

A *stroke*, also called a 'brain attack', occurs when an area of the brain is damaged following interruption to its blood supply. This results in deterioration of the mental and physical functions controlled by that particular area.

## What is the cause?

There are three main causes:

- *thrombosis*: a clot forming in the artery to the area
- *embolus*: a small clot from elsewhere blocking the artery
- *haemorrhage*: bleeding into the brain (unlike the others, where the artery is blocked).

The risk factors for stroke are:

- high blood pressure
- high cholesterol
- diabetes
- smoking
- heart disease.

## What are the symptoms?

The symptoms depend on the area of the brain affected and the cause. A haemorrhage usually has a sudden onset and a less favourable outlook. Sometimes a stroke is mild and the effects pass off in a day or so.

Symptoms include:

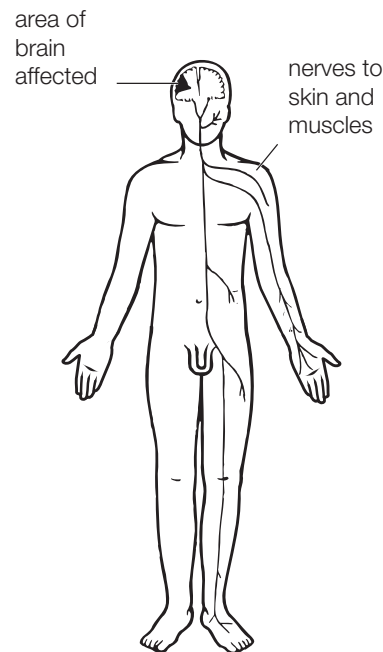
- unconsciousness
- confusion
- loss of power of speech
- loss of movement of part of the body (e.g. on one side of the body)
- double or blurred vision
- difficulty understanding questions
- headache
- dizziness
- difficulty walking or using arms
- numbness or a weak feeling on one side of the body (face, arm or leg).

## What is a transient ischaemic attack?

This is a transient loss of function due to a temporary blockage in the artery. It is usually caused by a small embolus and the patient recovers in a period ranging from a few minutes to 24 hours (average time 5 minutes). It can be a warning of an impending stroke, and so it needs urgent medical attention.

## How common are strokes?

They are very common, especially in people over 65 years and more so in males. In Western countries they are the third most common cause of death and after heart attacks the second most common cause of sudden death. Those at special risk are those with high blood pressure, diabetes or high blood cholesterol and heavy smokers.



An accident to one side of the brain will lead to paralysis of the opposite side of the body

## How can strokes be prevented?

The risk factors need to be checked, especially high blood pressure and cholesterol, which must be kept under control. Other things to do are avoid smoking, avoid excessive alcohol intake, eat a low-fat healthy diet, keep to an ideal weight and have regular exercise.

If you have been found to have hardening of the arteries to the brain, you may be advised to have tablets to prevent blood clots (thrombosis) forming. Aspirin can do this, and only a small dose is needed. Garlic tablets are reported to help prevent clots, and special blood-thinning tablets called *anticoagulants* (commonly warfarin) can be prescribed.

## Surgery

If a person has partially clogged arteries to the brain (the *carotids*), it may be possible to clean them out rather like a brush cleaning out a chimney. This is a good option in some patients, especially in those who have had transient ischaemic attacks.

## What is the treatment for stroke?

It is important to call an ambulance and get to a stroke unit as soon as possible. Follow the FAST rule:

- F: facial weakness (ask the person to smile)
- A: move arms (raise both arms)
- S: speech (speak a simple sentence)
- T: time—act quick if there is a problem with any or all of the above.

An injection within 3 hours may dissolve a blood clot.

Intense rehabilitation to get limbs and speech working again is important. Ideally physiotherapy should be commenced in the first 2 days.