



Stroke

This fact sheet provides information on strokes. Our fact sheets are designed as general introductions to each subject and are intended to be concise. Sources of further support and more detailed information are listed in the Useful contacts section. Each person is affected differently by strokes and you should speak with your doctor or specialist for individual advice.

What is a stroke?

A stroke is a disruption in the blood supply to the brain. Most strokes are caused by blockages (usually blood clots) disrupting the brain's blood supply. These are called **ischaemic strokes**. Some strokes are caused by bleeds. These are called **haemorrhagic strokes**.

The brain depends on a supply of blood for the oxygen and nutrients it requires to function properly. When the blood supply is disrupted, brain cells are starved of oxygen and nutrients. This causes damage to the brain tissue.

Stroke is a medical emergency. If you suspect someone is having a stroke, call 999. Stroke is the leading cause of adult disability in the UK. Strokes can affect people of any age but are more common in older people.

Some people have a temporary blockage in the blood supply to their brain which clears of its own accord, quickly and before any lasting damage to the brain is done. This is called a transient ischaemic attack (TIA).

Further information can be found in our fact sheet **TIA (transient ischaemic attack)**.

What are the symptoms of stroke?

Each person is affected differently by stroke and individual symptoms depend on which parts of the brain are affected and for what specific functions these parts of the brain are responsible. The severity of the symptoms depends on how much damage is done to the brain.

The main symptoms of stroke are physical problems in one side of the body (numbness, weakness), drooping in one side of the face, speech problems (slurred speech, muddled words), visual problems (blurred vision, loss of vision), confusion and severe headache. In more serious cases, the person might lose consciousness. The onset of stroke symptoms is usually sudden. Strokes can occur while people are sleeping. If this happens, people can wake up with the symptoms.

People might also experience longer-term effects such as psychological problems (for example, depression, anxiety or difficulty controlling emotions), bowel or bladder problems (incontinence) and problems with swallowing. Other symptoms can include pain, spasticity, dizziness and balance problems, memory problems, visual problems, sexual dysfunction, a loss of awareness of one side of the body (neglect) and fatigue.

What causes strokes?

Most strokes are caused by a thickening or narrowing of the arteries that carry blood to the brain.

Our arteries tend to harden, narrow and weaken as we get older however there are some groups of people who are at an increased risk. These include people with high blood pressure, people with high cholesterol, people with heart disease or diabetes (or a family history of heart disease or diabetes), people who smoke, people with a high alcohol intake and people who do not exercise regularly.

Stroke is also more common in South Asian, African and Caribbean communities, partly because diabetes and high blood pressure is also more common in these groups.

Ischaemic strokes are caused by blockages (usually blood clots) in one of the arteries supplying the brain. Clots can form in these arteries themselves or form in a blood vessel elsewhere in the body and travel to the brain. Clots commonly form where arteries have narrowed due to a build-up of fatty deposits (cholesterol) on their inner walls. The narrowing or furring of the arteries is called atherosclerosis.

Although stroke affects the brain and not the heart, people with an irregular heartbeat (atrial fibrillation) are at an increased risk. An irregular heartbeat can cause blood clots which can travel to the brain and cause a stroke.

Haemorrhagic strokes are caused by one of the blood vessels supplying the brain bursting and causing a bleed. The most common cause is high blood pressure which damages and weakens the arteries making them more likely to tear.

Some people have haemorrhagic strokes because they have aneurysms (a balloon-like swelling on an artery) which burst. If an aneurysm bursts and causes bleeding over the surface of the brain, it is called a subarachnoid haemorrhage (SAH).

Further information can be found in our booklet **Subarachnoid haemorrhage**.

Serious head injuries can also cause haemorrhagic strokes.

Tests and investigations

The key test for stroke is a brain scan. You might have a CT (computerised tomography) scan or an MRI (magnetic resonance imaging) scan. Your scan results can show whether your stroke is ischaemic or haemorrhagic. This is important because the treatments differ depending on the type of stroke.

Further information can be found in our fact sheet **Brain and spine scans**.

You might also have an ultrasound test to check for any blockages in the main arteries in your neck which supply your brain with blood (the carotid arteries).

Your blood pressure will be checked, you will have blood tests to check your cholesterol and glucose levels, and other tests to check your heart.

What are the treatments?

A small number of people who have an ischaemic stroke might benefit from a treatment called thrombolysis which dissolves the clot blocking an artery. This treatment needs to be given within a short period of time after the onset of symptoms (within four and a half hours). It can significantly reduce the effects of the stroke but it is not available in all hospitals and is not suitable for everyone.

If you have a blockage or partial blockage in one of your carotid arteries you might benefit from surgery to clear it. This operation is called a carotid endarterectomy. Your doctors will discuss your suitability for this procedure with you.

If your stroke was caused by a blockage (ischaemic) you might be given medication to thin your blood and make it less sticky to reduce your risk of blood clots. You might be prescribed an antiplatelet medicine like aspirin, which reduces the stickiness of platelets and therefore reduces the chance of a blood clot forming. Or you might be given an anticoagulant, such as warfarin, which works by interrupting the chemical process that allows a blood clot to form.

If you have high blood pressure or high cholesterol you will be given medication to reduce and control your levels. There are several types of medication that help control blood pressure and most people take more than one type. Medication will always be tailored to your needs and to what suits you best. If you have high blood cholesterol statins might be prescribed. These prevent cholesterol production which reduces the chance of blood clots forming. Stopping smoking and eating a healthy balanced diet are two things you can do to help improve your blood pressure and cholesterol levels.

People who have had a stroke are at an increased risk of further strokes so it is important to try to reduce this risk.

Recovery

Most people tend to make their best recovery in the first few days and weeks after the stroke but people can continue to recover slowly over months and even years.

If you have any physical problems after your stroke it is likely that you will benefit from physiotherapy. A physiotherapist can help your physical recovery and the recovery of balance and movements such as walking.

If you have any speech problems it is likely that you will benefit from speech and language therapy. A speech and language therapist can help with the recovery of your communication skills. They can also help if you have swallowing problems.

You might also benefit from occupational therapy. An occupational therapist can help you redevelop the skills you need to perform everyday activities at home like washing and cooking. They can also recommend special equipment or adaptations to your home to make your life easier.

More people than ever before are surviving and living with stroke in the UK, however over half of stroke survivors are living with some type of disability.

Your health and social care needs should be reviewed six months after your stroke and then every year after that.

How can I reduce my risk of having a stroke?

- Stop smoking
- Cut down on how much alcohol you drink
- Eat a healthy diet (cut down on salt and fatty foods)
- Exercise regularly
- Have your blood pressure checked

Useful contacts

Brain & Spine Helpline

0808 808 1000

helpline@brainandspine.org.uk

www.brainandspine.org.uk

Run by neuroscience nurses providing support and information on all aspects of neurological conditions for patients, their families and carers, and health professionals.

Stroke Association

Stroke Information Service
Life After Stroke Centre, Church Lane
Bromsgrove
Worcestershire B61 8RA
Helpline: 0303 303 3100
info@stroke.org.uk
www.stroke.org.uk

Support and information on stroke.

Different Strokes

9 Canon Harnett Court
Wolverton Mill
Milton Keynes MK12 5NF
StrokeLine: 01908 317 618 or 03451 307 172
info@differentstrokes.co.uk
www.differentstrokes.co.uk
Support and information for younger people affected by stroke.

Chest, Heart and Stroke Scotland

Third Floor, Rosebery House
9 Haymarket Terrace
Edinburgh EH12 5EZ
Advice line: 0808 801 0899
adviceline@chss.org.uk
www.chss.org.uk
Support and information on stroke.

NHS Choices

www.nhs.uk
NHS non-emergency number: 111
Medical advice and information on health services.

The Brain & Spine Foundation provides support and information on all aspects of neurological conditions. Our publications are designed as guides for people affected by brain and spine conditions – patients, their families and carers. We aim to reduce uncertainty and anxiety by providing clear, concise, accurate and helpful information, and by answering the common questions that people ask. Any medical information is evidence-based and accounts for current best practice guidelines and standards of care.

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