A stroke is a serious, life-threatening medical condition. A stroke occurs when the blood supply to your brain is interrupted or reduced. This deprives your brain of oxygen and nutrients, which can cause brain cells to die.

A stroke may be caused by a blocked artery (ischemic stroke) or the leaking or bursting of a blood vessel (haemorrhagic stroke). Some people may experience only a temporary disruption of blood flow to their brain (transient ischemic attack (TIA) or ‘mini-stroke’) in which the symptoms last for a few minutes or hours. A TIA should be treated seriously as it is a warning sign that you are at risk of having a full stroke in the future.

It is important to call an ambulance quickly if a stroke happens, or if someone has what could be the symptoms of a stroke. Early medical intervention can minimise brain damage and potential complications.

**Your lifestyle and stroke**

Strokes are caused by damaged arteries. Our arteries tend to harden, narrow and weaken as we get older but smokers, people with high blood pressure, people with high cholesterol, and people with heart disease or diabetes are at an increased risk. Lifestyle changes can lower your risk of stroke.

**Eat a healthy, balanced diet.** A low-fat, high-fibre diet is recommended, including plenty of fresh fruit and vegetables and whole grains. Avoid saturated fats and salt.

**Exercise regularly.** Aerobic or ‘cardio’ exercise is recommended, such as walking,
Jogging, dancing, swimming, cycling or gardening.

**Maintain a healthy weight.** Extra weight around your waist raises the risk of stroke.

**Drink less alcohol.**

**Don’t smoke.**

**Don’t use recreational drugs.** Cocaine, crystal meth, other stimulant drugs, and also cannabis increase the risk of stroke.

If you have already had a stroke, making the same changes can help reduce your risk of having another stroke in the future.

### Who is at risk?

Having high cholesterol, high blood pressure, diabetes or atrial fibrillation (an irregular heart beat) increases your risk of stroke. It will be important to keep this condition under control (perhaps with medication) and to make lifestyle changes.

Men, people over the age of 55, people of non-white ethnicity, and people whose close family members have had strokes are at greater risk. Having hepatitis C raises the risk of stroke.

People who **smoke**, are overweight, don’t get enough **exercise** or have a poor **diet** are more likely to have a stroke. There’s information on ways you can reduce your risk in the previous section.

### Stroke in people living with HIV

Having HIV may raise the risk of stroke, especially for people who have had a high **viral load** in the past. This may in part be due to chronic inflammation (ongoing activation of the immune system) in response to HIV infection. This dysfunctional response of the immune system probably contributes to a range of health problems, including stroke.

Taking HIV treatment and keeping your viral load **undetectable** will help prevent strokes.

### Symptoms

The most common symptoms of stroke can be remembered with the word FAST: Face-Arms-Speech-Time.

- **Face** – the person’s face may have dropped on one side, they may not be able to smile or their mouth or eye may have dropped.

- **Arms** – the person with suspected stroke may not be able to lift both arms and
keep them there because of arm weakness or numbness in one arm.

- **Speech** – their speech may be slurred or garbled, or the person may not be able to talk at all despite appearing to be awake.

- **Time** – it is time to dial 999 immediately if you see any of these signs or symptoms.

Other symptoms can include loss of vision, sudden vertigo, sudden clumsiness, loss of feeling or numbness. If any of these occur, it’s important to get medical attention without delay.

The long-term effects of a stroke vary from person to person, with some people making a good recovery. A stroke can cause temporary or permanent disabilities, depending on how long the brain lacks blood flow and which part was affected. Complications may include weakness or paralysis on one side of the body, difficulty talking or swallowing, memory loss or difficulties in understanding. People who have had strokes may have more difficulty controlling their emotions, or they may develop depression.

**Diagnosis and monitoring**

Brain scans should be carried out immediately after a stroke. You might have a CT (computerised tomography) scan or an MRI (magnetic resonance imaging) scan. A brain scan is needed to confirm that your symptoms are caused by a stroke and to check what type of stroke it is. Different treatments are required for the different types of stroke, so a rapid diagnosis is important.

Further tests may include blood tests to determine your cholesterol and blood sugar levels, checking your pulse for an irregular heartbeat, taking a blood pressure measurement and a scan of the arteries in your neck.

**Treatment and management**

If you or someone around you develops any of the signs or symptoms of a stroke, it is vital to call 999 and get emergency treatment immediately. The National Institute for Health and Care Excellence recommends that all people with suspected stroke are quickly transferred to a specialist acute stroke unit.

Some of the most effective treatments can only be given in the first few hours following stroke, so seeking early medical attention is crucial. Treatment depends on the type of stroke you have, including which part of the brain was affected and what caused it.

As well as drugs to prevent and remove blood clots, you may be given medication to reduce blood pressure and reduce cholesterol levels.

In some cases, surgery may be required to treat brain swelling and reduce the risk of further bleeding in cases of haemorrhagic strokes.
"Having HIV may raise the risk of stroke, especially for people who have had a high viral load in the past."

In the weeks and months that follow, rehabilitation is used to help relearn skills that were lost because of stroke and to learn new skills or ways of coping with a permanent disability. Physiotherapists can help with balance, posture and motion; occupational therapists with day-to-day activities; speech therapists with communication problems; and, psychologists with emotional and mental health issues.

The amount of time it takes to recover and the extent of recovery varies between people and depends on the amount of damage caused by the stroke.

The lifestyle changes mentioned earlier in this factsheet will reduce your risk of having another stroke in the future.

Doctors specialising in stroke and other disease affecting the brain, nerves and muscles are called neurologists. It’s best for the doctors treating your stroke and your HIV to liaise about your healthcare. (In order for this to happen, you need to give your permission.)

You can also ask your doctors and pharmacists to check that there are not any drug-drug interactions between your treatments for stroke and for HIV.

**Other sources of information**

For more information on stroke, you may find the website of the Stroke Association helpful: [www.stroke.org.uk](http://www.stroke.org.uk). You can also contact their helpline team on 0303 3033 100.

**Find out more**

- **The heart** Simple factsheet
- **High blood pressure** Simple factsheet
- **Nutrition** Information booklet

For other factsheets in this series visit [www.aidsmap.com/factsheets](http://www.aidsmap.com/factsheets)

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