



TRANSIENT ISCHAEMIC ATTACK AND STROKE

Vascular disease is as prevalent as both cancer and heart disease and accounts for **40% of deaths in the UK**, many of which are preventable.

SAVING LIVES AND LIMBS

What is a transient ischaemic attack?

Transient Ischaemic Attack (TIA) is the medical term used to describe a “mini-stroke”. This causes symptoms that begin suddenly, resolve rapidly and completely (within 24 hours) and are caused by a temporary lack of blood in an area of the brain. Common symptoms include:

- Weakness or numbness of the hand, tongue, cheek, face, arm or leg
- Trouble speaking normally or at all
- Temporary visual loss in one eye. This is called Amaurosis Fugax
- Unsteadiness, confusion or personality change

A TIA is a **warning sign** that a person may be at **high risk** of having a stroke within the next few days. Immediate treatment can decrease or eliminate this risk. It is important to **get help right away** if you think you may be having a TIA or a stroke.

What is a stroke?

A stroke is when a part of the brain is damaged because it goes without blood for too long. The symptoms are usually similar to those above for TIAs but sometimes can be more severe. Some people can present with a collapse or loss of consciousness.

Some people recover completely from strokes or may be left with only minor problems but many people have serious life-long disabilities. These can include speech difficulties, paralysis and/or an inability to care for themselves.

What is the difference between TIA and stroke?

A TIA is just like a stroke, except that a stroke causes long-lasting symptoms while a TIA goes away quickly (within 24 hours). A TIA does not cause permanent damage like a stroke but the symptoms are often similar. This can make it hard to tell if a person is having a TIA or a stroke.

Are there any illnesses with symptoms similar to that of TIAs and strokes?

There are several illnesses which may seem very much like TIAs and strokes. These include:

- Migraines
- Epileptic fits or seizures
- Low blood sugar – often in people with diabetes
- Changes in heart rhythm

When symptoms first occur, it is often difficult to distinguish these conditions from TIAs and strokes. As these conditions also often need emergency medical treatment, help must be sought immediately.

What causes a TIA or a stroke?

The brain needs a constant blood supply to provide oxygen and nutrients to brain cells. TIAs and strokes occur when the blood supply to part of the brain is cut off either temporarily (TIA) or permanently (stroke).

There are two main types of stroke: those caused by a blockage in a blood vessel in the brain and those caused by bleeding in the brain or surrounding area.

What causes the blockage of a blood vessel in the brain?

This is due to either the **narrowing or blockage** of these arteries from a build-up of fatty deposits (atherosclerosis) or when a **blood clot** or piece of **fatty material** (known as an embolus) travels from another part of the body (often the heart) through the bloodstream to the brain where it lodges in a blood vessel and blocks it.

Narrowing of the arteries (atherosclerosis) is known to be caused by smoking, high blood pressure, high cholesterol and diabetes.

One of the most common causes of an embolus is an irregular heart rhythm called "atrial fibrillation." Blood clotting disorders can also cause embolic TIAs and strokes in some people.

How can you tell if someone is having a TIA or a stroke?

There is an easy way to remember the signs of a TIA or stroke. Just think of the word "FAST". Each letter in the word stands for one of the signs you should watch for:

Face — Does the person's face look uneven or droop on one side?

Arm — Does the person have weakness or numbness in one or both arms? Does one arm drift down if the person tries to hold both arms out?

Speech — Is the person having trouble speaking? Does their speech sound strange?

Time — If you notice any of these stroke signs, even if they go away, it's time to call 999. You need to act FAST. The sooner treatment begins, the better the chances of recovery.



What tests are required?

These usually include blood tests for high cholesterol and diabetes, brain imaging and a heart tracing (ECG). In addition, as about 20% of TIAs and strokes are due to narrowing (atherosclerosis) of one of the blood vessels in the neck (carotid artery disease), a painless ultrasound scan of the neck may also be performed.

How are TIAs and minor strokes treated?

Treatments focus on preventing future stroke. These include:

Lifestyle changes:

- Stop smoking
- Eat a diet rich in fruits, vegetables and oily fish (omega-3) and low in meats, sweets and refined grains (such as white bread or white rice)
- Eat less salt (sodium)
- Do something active for at least 30 minutes a day on most days of the week and try to lose weight
- Limit the amount of alcohol you drink

Medicines – Some medicines will also reduce the chances of having a stroke. These include:

- Medicines for blood pressure control
- Statins: drugs which lower cholesterol and reduce the chance of atherosclerotic plaques cracking or fragmenting
- Medicines to make the blood less sticky and reduce the chance of it clotting, such as aspirin and/or clopidogrel.

Is surgery ever needed?

If severe carotid artery disease is found, surgery or stenting (insertion of a tiny metal tube) may be suggested to keep this blood vessel open, with the aim of reducing the chances of a future stroke. If this is required, the doctors will discuss all the benefits and risks of this with you to help you decide on whether you would like to have an operation or not.