Transient ischaemic attack (TIA)

The Stroke Association
www.stroke.org.uk

STROKE HELPLINE 0845 3033 100 FACTSHEET 1

A transient ischaemic attack or TIA is similar to a full stroke, but the symptoms do not last as long. This factsheet explains how to recognise a TIA, the tests and treatments that should happen afterwards and what you can do yourself to reduce the risk of a further TIA or stroke.

A **transient ischaemic attack (TIA)** is often called a 'mini-stroke' or mild stroke. The symptoms are very **similar to those of a full-blown stroke**, but they **do not last as long** – anything from a **few minutes up to 24 hours**. As with a stroke, the symptoms are an indication that a **part of the brain is not getting enough blood**. **A TIA should never be ignored**. Without treatment, about **one in four people** who have had a TIA will go on to have a **full-blown stroke within a few years**.

Symptoms of TIA

The **FAST (Face Arms Speech Test)** helps people to quickly recognise the key symptoms of a TIA or stroke:

- **Facial Weakness**: Can the person smile? Has their mouth or eyelid drooped?
- **Arm Weakness**: Can the person raise both arms?
- **Speech problems**: Can the person speak clearly and understand what you say?
- **Test** these symptoms.

If the person fails any one of these tests, they should **seek urgent medical attention**. Other symptoms of a TIA or stroke may include:

- **Weakness**, numbness, clumsiness or pins and needles on **one side** of the body – for example, in an arm, leg or the face
- Loss of or blurred **vision** in one or both eyes
- Slurred **speech** or difficulty finding some words.

If you, or someone you know, have any of the symptoms of a TIA, **you should contact a doctor urgently**. Though the symptoms may be due to something quite different from a TIA, such as a migraine or an epileptic seizure, the sooner the symptoms are investigated, the more likely a doctor will be able to say whether it was a TIA or not.

What causes a TIA?

Two large blood vessels, one on either side of the neck, carry oxygenated blood up into the head. Called the **carotid arteries**, they branch into smaller and smaller **blood vessels**, which carry blood to all parts of the brain.

If a blood clot or other debris **clogs** one of these tiny blood vessels, the blood supply to nearby brain cells may be **disrupted**. If this is **temporary**, a **TIA** may occur. If the disruption to the blood supply is **permanent**, it may result in a **stroke**.

Sometimes a TIA occurs when a **blood clot** from a blood vessel in another part of the body or from the heart **moves upwards** into one of the brain's arteries – this is called an **embolism**. **Very rarely**, symptoms of a TIA are due to **bleeding** (haemorrhage) in the brain.

What the doctor will do and what tests to expect

The doctor will want to know about your **symptoms** – what they were, how long they lasted, whether they have happened before – to help **distinguish** between a **TIA** and **other possible causes**.

You may be referred to a **neurologist** or a consultant with a special interest in strokes or to a **TIA clinic**. TIA clinics are run at some hospitals and GPs' surgeries, usually with a specialist stroke nurse in attendance. Following a TIA, you may have some or all of the following tests:

- Computed tomagraphy **(CT)** head **scan**
- **Blood pressure** measurements
- **Blood tests** to check **clotting**, **blood sugar** and **cholesterol** levels
- Electrocardiogram **(ECG)** to look for unusual **heart rhythms**
- Chest x-ray to exclude other **health problems**
- Ultrasound (Doppler scan) of the **carotid arteries** to check **blood flow**
- Echocardiogram to check for various forms of **heart disease.**

Treatment

If the specialist confirms you have had a TIA, your treatment will be aimed at trying to **prevent** another TIA or a stroke. In addition to making certain **lifestyle changes** (see **Helping yourself** on page 4), it is likely that you will be prescribed at least one of the following **medications**.

Anti-platelet medication

After a TIA or a stroke, many people are prescribed drugs to **reduce** the risk of **clots** forming in their **blood** and blocking their carotid arteries or other blood vessels in their brain. **Aspirin** is the drug **most commonly used** to stop the platelets – the basic building blocks of blood clots – from sticking together. It is relatively **safe** but should only be taken on the advice of a **doctor**, who will prescribe it where necessary.

Some people may be prescribed a **combination** of **aspirin** and a modified-release drug called **dipyridamole** – particularly in the two years following a TIA or stroke. This works in a slightly different way to taking aspirin on its own, but the effects are the same.

Another anti-clotting drug called **clopidogrel** is often prescribed for people who **cannot take aspirin** because of aspirin's possible side effects. It may also be given to people who have had a TIA despite

already taking aspirin or to those who have **arterial disease** affecting other parts of their body.

People who have had a TIA due to a **blood clot** arising from their **heart** (often due to **atrial fibrillation**, an irregular heart rhythm) are likely to be prescribed **warfarin** to prevent further clots. **Warfarin** is a drug that slows down the clotting process in the blood, so **aspirin** and **warfarin** should never be taken alongside each other as there is a risk of internal bleeding. Those taking warfarin are **monitored carefully** to ensure the dose is correct and the blood is not becoming too thin. Because of the greater risk of complications, warfarin is not routinely given to people **over 80** without careful discussion of the risks versus the benefits.

High blood pressure medication

If a series of readings show your **blood pressure** is raised, you will be prescribed drugs to bring it down. There are many different **medications** available and it may take a while to find the **right drug** in the right dose to suit you. If you have any **problems** with the drug you are given, **tell your doctor,** who may be able to change or adapt your prescription. Many people take **two or three** different blood pressure **medications** to control their blood pressure.

High cholesterol medication

If your cholesterol level is raised, you will be given advice on how to **reduce** the amount of **fat** in your diet. You may also be prescribed a **drug** to lower your **cholesterol** level. The most commonly prescribed drugs are called **statins** and, as with drugs for high blood pressure, there are several available.

If you have any concerns about the side-effects of medication, it is recommended that you **do not stop taking it** but **consult your GP**.

When surgery is needed

If your **carotid arteries** have become partially **blocked**, resulting in poor blood flow, you may be advised to have an operation called **carotid endarterectomy**. Fatty material may have built up in the wall of one or both arteries, and **blood cells** and other **debris** may have become stuck to the surface. This makes the artery much **narrower,** and debris may break off and be carried by the blood to block an artery in the brain.

Carotid endarterectomy involves **removing** part of the **lining** of the **damaged artery** and any **blockage**, so that **blood flow is improved** and the risk of **debris** breaking off is reduced. It is useful for people who have **severe**, but **not total blockage**. Sometimes both carotid arteries need surgery, but they are usually done one at a time in separate operations. Though the results are usually very good, carotid endarterectomy carries with it a **small risk of stroke**. As with any major surgical procedure, carefully **discuss the situation with your doctor** before making a decision.

Helping yourself

Anyone who has had a TIA is at **greater risk** of having another TIA or stroke. There are several things you can do yourself to **reduce your risk**.

- **Give up smoking.** Smoking causes the **arteries** to become **narrowed** and makes the **blood** more likely to **clot**. Giving up can be difficult, so ask your **GP** about attending a stop-smoking clinic or other help with stopping smoking.
- **Eat at least five portions of fruit and vegetables each day.** There is some evidence that a diet rich in fruit and vegetables, which contain protective substances called **anti-oxidants**, reduces the risk of stroke by **protecting blood vessel walls** from damage.
- **Reduce your intake of salt.** Salt **raises blood pressure**. Don't add salt to your food and avoid processed foods that contain a lot of salt.
- If you have high blood pressure or high cholesterol levels, ensure that you have **regular checks-ups** and keep in touch with your GP.
- **Limit the amount of fat you eat.** Try to limit the amount of fat you use in cooking and stick to **vegetable, seed and nut oils**, rather than margarine and butter. Avoid **fatty foods** such as pies, pastries and ready-meals.
- **Reduce your alcohol intake and avoid binge drinking.** Excessive alcohol can raise **blood pressure**, while binge drinking increases the risk of a **blood vessel bursting** and causing **bleeding** into the brain. The current recommended guidelines are two to three units for women and three to four units for men per day. (A unit is one small glass of wine, a single measure of spirit or a half pint of normal strength (4%) beer or lager).
- **Increase your level of physical activity.** Regular exercise can reduce the risk of stroke by **lowering blood pressure**, assisting with **weight loss** and altering the balance of **fats** in the blood. **Thirty minutes** of activity **five days a week** is enough to reduce your risk of stroke. This can be one thirty minute session or several shorter sessions a day.

For further information, phone the Stroke Helpline on 0845 3033 100, email info@stroke.org.uk or visit our website www.stroke.org.uk