

What is a Transient Ischaemic Attack?

Chest
Heart &
Stroke

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What is a Transient Ischaemic Attack?

A transient ischaemic attack (**TIA**) or '**mini-stroke**' is a set of symptoms **similar** to those of a **stroke**, but that last a short time and occur because of a **temporary** lack of **blood** to part of the **brain**.

A **TIA** can last anything from a few **minutes** to a few **hours** but **symptoms** completely **disappear** within 24 hours. If the symptoms persist after **24 hours** then it is more likely to be a stroke.

What is the cause of a TIA?

In most cases, a **TIA** is **caused** by a **tiny blood clot** that becomes **stuck** in a small blood vessel in the **brain**. This blocks the blood flow, and a part of the **brain is starved of oxygen**.





The **blood clot** then either **breaks up** quickly, or nearby **blood vessels** are able to **make up** for it and the affected part of the brain is *without oxygen* for just a **few minutes**, so the brain soon recovers.

What are the common symptoms of a TIA?

The **symptoms** that develop **depend** on which **part of the brain** is affected. The brain controls the way we **move, think, see, speak,** and **eat**. Everything we do is controlled by **different parts** of the **brain**. Therefore, symptoms may include one or more of the following.

- **Weakness** or clumsiness of a hand, arm, or leg
- **Numbness** or pins and needles on one side of the body
- Difficulties with **speech** or finding words
- Loss of **vision**, or double vision

How serious is a TIA?

Most **TIA's** do **no permanent damage** to the brain, and the symptoms soon go. However, it is a **warning** that a part of the **brain** didn't get **enough blood** for a time.

If you have a **TIA** you have a **higher risk** of having a **stroke** which could cause **permanent damage**.



Act FAST

If you see the signs of a TIA **act quickly** and seek urgent medical attention. Even if the symptoms go away quickly and you feel **completely better** you should **still seek urgent medical attention**.

Northern Ireland Chest Heart and Stroke supports the **FAST** campaign.



- Facial weakness** Can the person smile?
Has their mouth or eye drooped?
- Arm weakness** Can the person raise both arms?
Is one arm weak?
- Speech problems** Can the person speak clearly and
understand what you say?
- Time to call 999** If the person has failed **any** of
these tests call **999** immediately.

What to expect?

The **doctor** will want to know **about** your **symptoms**;

- What they were
- How long they lasted
- Whether they have happened before

This will help to **distinguish** between a **TIA** and other possible **causes** like a **migraine** or an **epileptic fit**. What happens next depends on what happened when you had the TIA. Your doctor may refer you to the **hospital** or a **special clinic** for further tests and investigations. You may have some, or all, of the following tests done:

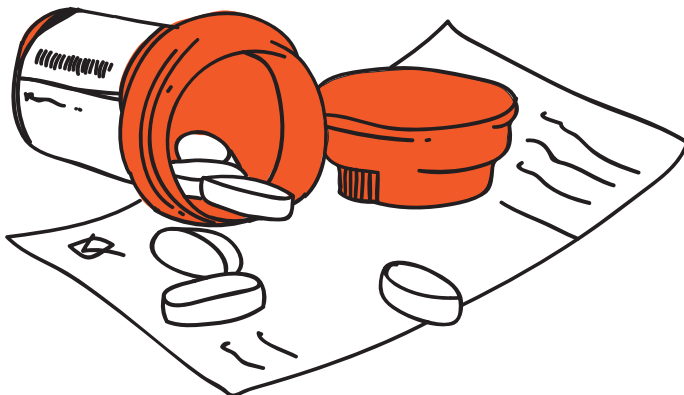
- A blood pressure test
- Blood tests
- A brain scan
- An ultrasound scan of the main blood vessels to the brain
- An ECG (electrocardiogram) to check for abnormal heart rhythms
- An ultrasound of the heart



What is the treatment if you have a TIA?

The aim of **treatment** after a TIA is to **reduce your risk** of having further TIAs or a stroke. Treatment may include the following:

- Medication to reduce the risk of blood clots forming
- Medication to reduce high blood pressure or cholesterol
- Surgery (but this is only suitable for some people)
- Lifestyle changes



Medication to reduce the risk of blood clots forming

Antiplatelet medication – **Platelets** are tiny **particles** in the **blood** which help the blood to **clot**. Antiplatelet medication is usually advised if you have had a TIA. Antiplatelet medication **reduces** the ‘**stickiness**’ of **platelets**.

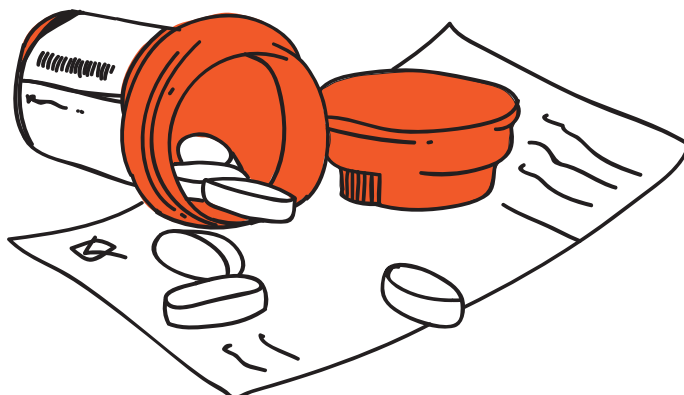
This helps to **prevent** blood **clots forming** inside blood vessels, which helps to prevent a further TIA or a stroke. A low dose of **aspirin** is the **most commonly** used antiplatelet drug but should only be taken on the **advice of a doctor**.

Dipyridamole is another antiplatelet drug and it is sometimes used in combination with aspirin.

Clopidogrel is an antiplatelet drug prescribed to someone who can't take aspirin because of an allergy or its side-effects.

Anticoagulant medication – Some people with an **irregular heart beat** called atrial fibrillation can have a **TIA** because a **blood clot** develops in their heart and **travels** to the **brain**. Warfarin is usually given if you have a TIA where the blood clot developed in your heart. **Warfarin** works by **reducing** some of the **chemicals** in the blood that are needed to make the blood clot and so **slows down clotting**.

People taking **warfarin** need to be **monitored closely** to ensure the dose is correct and is not making the **blood too thin**, which increases the risk of bleeding. **Warfarin and aspirin are rarely prescribed together**. **This combination should only be recommended by a specialist**.



Medication to reduce high blood pressure

You may be prescribed **drugs** to bring your **blood pressure down**. There are **many kinds** of medications available and it may take a while to find the **right drug** at the **right dose** to suit you. If you experience any **problems** with the drug you are given tell your **GP** and they may be able to prescribe a different one.

Medication to reduce high cholesterol

Medication may also be prescribed to **lower** your **cholesterol** level. The most commonly prescribed drugs are called **statins** and again there are several available.

You will also be given **advice** on how to lower your **blood pressure** and/or **cholesterol** by changing your **diet** and **increasing activity** levels.

Surgery

If the ultrasound scan shows that the main **blood vessels** (carotid arteries) to your **brain** have become partially **blocked**, by a build up of **fatty material**, then you may be advised to have an **operation** called a carotid endarterectomy. The fatty material makes the **vessel** much **narrower** resulting in poor **blood flow** and bits of it could break off and be carried to a smaller blood vessel in the brain and **block** it.



The carotid endarterectomy **clears** the **blocked artery** so that blood flow is improved and the risk of bits breaking off is reduced. The procedure 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** and so, as with any major surgical procedure, **discuss** the situation with your **doctor**.



Lifestyle changes

If you have a **TIA** you have a **higher risk** of having a **stroke** but there are things you can do to **reduce the risk**.

High blood pressure (hypertension) and high cholesterol are the biggest risks for stroke. Usually they have **no symptoms**, so make sure your blood pressure and cholesterol are **checked** at least **once a year**.

If your blood pressure or cholesterol are high they can be **treated**. You may be prescribed drugs to bring them down but, lifestyle changes will also **reduce** your blood pressure and cholesterol level and reduce your risk of stroke.

Stop smoking

Smoking damages the lining of the **blood vessels**, increases your blood pressure and makes your blood stickier, all of which **increase the risk of stroke**. It is also linked to many other serious health problems.



It is not easy to **quit smoking** but there is help out there; ask your **GP** for information on nicotine replacement products.

Many local **hospitals** run **smoking cessation clinics** and there are some GPs and local pharmacists who also provide this service. You can contact the Health Service for their Smokefree Want 2 Stop Quit Kit on **0808 812 8008** or at **www.want2stop.onfo/quitkit**.

Eat a healthy, balanced diet

Eat at least **five** portions of **fruit** and **vegetables** each **day**. Fruit and vegetables **contain** protective substances called **anti-oxidants** which **protect 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.

Limit the amount of **fat you eat**.

You can make simple changes to your **diet** such as using semi-skimmed or skimmed milk, choosing **low fat products**, **grilling** instead of frying, cutting



the visible **fat off meat** and keeping cakes and sweets to an occasional treat.

Eating **oily fish** such as sardines, mackerel, salmon and trout, which contain omega-3, once or twice a week can help **reduce** the level of some of the **fatty** substances in your **blood**.

Eating **more fibre** is recommended; choosing wholemeal bread instead of white bread, eating a **wholegrain cereal** for breakfast, eating **wholemeal pasta** and eating more beans and pulses.

Reduce your alcohol intake

Excessive alcohol can raise blood pressure, and **binge drinking** increases the **risk** of a **blood vessel bursting** causing bleeding into the brain.

The current recommended guidelines are **2 - 3 units** for **women** and **3 - 4 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). In Northern Ireland a single measure of spirits is 1.5 units.

Increase your level of physical activity

Taking more **exercise** brings many **benefits**. It improves your **circulation**, reduces your **blood pressure**, helps to control your **weight** and helps **reduce** your **cholesterol** level. It also increases a feeling of well-being and helps you to cope with **stress**.



Walking and **swimming** are among the **best** forms of **exercise** but increasing your activity in any way that suits you is the important thing.

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.



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