

STROKE SERIES SS5

# UNDERSTANDING TRANSIENT ISCHAEMIC ATTACKS (TIAs)





**Chest, Heart & Stroke Scotland, is an independent medical charity which aims to improve the quality of life for people in Scotland affected by chest, heart and stroke illnesses, through medical research, advice and information and support in the community.**

## **FUNDRAISING**

CHSS is an independent Scottish medical charity. We receive no Government funding and rely entirely on the Scottish public to raise the £4 million a year we need to help people with chest, heart and stroke illness throughout Scotland.

## **RESEARCH**

We are one of Scotland's largest charitable funders of medical research, with a programme worth over £500,000 a year. We fund research projects throughout Scotland into all aspects of the prevention, diagnosis, treatment and social impact of chest, heart and stroke illness. If you would like more details, please call (0131) 225 6963 for an explanatory leaflet.

## **WELFARE**

We provide small grants to people in financial difficulty because of chest, heart or stroke illness, for items ranging from clothing and bedding, to respite care. Applications are submitted through local Social Work Departments, or health professionals; for further information call (0131) 225 6963.

## **VOLUNTEER STROKE SERVICE (VSS)**

We give practical help to people whose communication skills are impaired after a stroke. The VSS provides weekly group meetings and home visits for patients. For details ask for our VSS leaflet and Stroke Directory.

## **CHSS NURSES**

Our nurses provide independent practical advice and support to those who have chest, heart and stroke illnesses, their families, carers and health professionals. There are dedicated nursing services in Fife, Glasgow, Grampian, Highland, Lanarkshire and Lothian. There is also a Scotland wide nurse led Advice Line (0845) 077 6000 calls are charged at a local call rate (out of hours answerphone). We have a wide range of booklets, factsheets and videos on chest, heart and stroke illnesses, which help towards an understanding of these conditions. Please ask for our publication list.

## **COMMUNITY SUPPORT NETWORK**

CHSS provides support to affiliated chest, heart and stroke clubs through the Community Support Network. The clubs are independent and are run by local volunteers. The groups provide a range of activities and offer people support, stimulation and companionship in a friendly and relaxed environment. Please ask for the Group Directory for more information.

# UNDERSTANDING TRANSIENT ISCHAEMIC ATTACKS (TIAs)

## What is a TIA?

A transient ischaemic attack is called a TIA for short. It is also sometimes referred to as a mini stroke. The symptoms are very similar to those of a stroke but the difference is that they pass. This can mean an episode can last for as short as minutes to hours, but not longer than 24 hours. After 24 hours has elapsed, and symptoms persist then it is more likely to be a stroke.

## What are the most common symptoms of a TIA?

The symptoms are called focal neurological symptoms:

- weakness, numbness, clumsiness or pins and needles on one side of the body e.g. arm, leg or face
- loss of or disturbed vision in one or both eyes
- slurred speech or difficulty finding some words.

Non-focal symptoms such as faintness, non-specific dizziness, light-headedness, confusion, mental deterioration, incontinence, drop attacks or syncope do not suggest a TIA unless they are clearly accompanied by focal symptoms.



## What should I do?

Never ignore the symptoms of a TIA. They might be a warning of a possible future stroke, which could be avoidable with treatment. About one in four people will go on to have a stroke within a few years of experiencing a TIA without treatment. Until you know exactly what has happened to you, you should not take any risks, by driving for example.

*Migraine, epilepsy, anaemia and heart arrhythmia can all give similar symptoms and all need to be treated.*

## What else could it be?

Anyone with these kinds of symptoms should get an urgent appointment to see their doctor.

The sooner you are investigated the more likely your doctor will be able to say whether it was a TIA or not. There are also other possible explanations for symptoms, so it is vital that your doctor investigates the cause. You may be referred to a TIA clinic

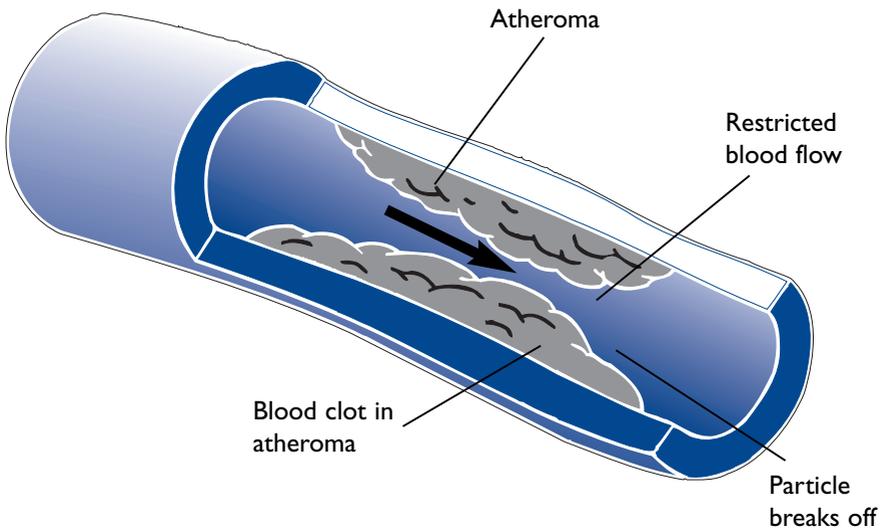
## What causes a TIA?

Basically, as in a stroke, the blood supply to the brain is interrupted for some reason.

In a TIA the blood supply to the brain has been temporarily cut off by a blockage in a blood vessel. This means that the area of the brain that the affected blood vessel was supplying is deprived of oxygen and disrupts the function of the cells involved. When the blood supply is re-established the symptoms pass. If the disruption to the blood supply is permanent, it may result in a stroke.

This can happen for two main reasons:

- Atheroma is the build up of fatty tissue in the wall of the blood vessel, narrowing the space that blood can get through, or temporarily blocking the flow altogether.



- An embolus is a blood clot or particle of debris that travels round the body in the bloodstream until it becomes stuck in a narrow blood vessel in the brain. This could have been actually produced in one of the blood vessels.

## What contributes to this happening?

There are certain situations that can contribute to these events, some of which we can control and some we cannot. Lifestyle changes you can make to help reduce your risk are outlined later.



### High blood pressure

Is one of the most important risk factors affecting TIA and stroke.

Over a period of time sustained high blood pressure can cause damage to the blood vessels.

Unfortunately there are not always symptoms to alert you to high blood pressure. It is often only discovered as a result of investigating something else, or in a routine examination.

Once it has been established that you have high blood pressure it is vital to control it.

### Blood stickiness

The stickiness of the blood itself can affect the likelihood of a clot forming. This can be influenced by many other factors and can be assessed by blood tests.

### Health of the blood vessels

There are several factors that play a part in the general health of the blood vessels involved. Narrowing of the blood vessels is a natural part of the ageing process, which we have no control over. High blood pressure, high cholesterol levels and diabetes can all affect the health of blood vessels over a period of time. So it is important to know about and control these conditions as much as possible.

## How is a diagnosis made?

Your own doctor will ask about your symptoms, what they were, how long they lasted and if they have happened before. He will check your blood pressure and possibly do an ECG if there is access to one in the surgery. The doctor may send you to hospital for tests and investigations to be done which will tell him about your heart, the state of your arteries and identify any other factors that may have contributed. Alternatively you may be referred to a stroke specialist; ideally this should come about within two weeks of your going to the doctor to be of the best help.

Based on the results of these tests and by ruling out other possible causes of your symptoms a diagnosis can be reached.

## What tests will I need?

When you get referred to a specialist, various tests will also be arranged for you as an out-patient. Which tests will be carried out varies from person to person. You may have all or some of the following:

- blood pressure measurements
- blood tests to check clotting, blood sugar and cholesterol levels
- ECG to look for any unusual heart rhythms
- chest x-ray to exclude other health problems
- CT scan to check for damage
- ultrasound scan of carotid arteries (the blood vessels in the neck) to check the blood flow
- echocardiogram to check for other forms of heart disease.



## Understanding your treatment

The main aim of treatment is to reduce the risk of a further TIA or possible stroke. This usually involves treatment with drugs.

### Anti platelet treatment

If a TIA or a stroke is caused by blocking of a blood vessel most people are prescribed some form of anti platelet drug treatment.

Anti platelets have the effect of preventing the cells that clump together to make blood clot, called platelets, from sticking together. This has the effect of making the blood thinner and so flow more easily.

There are three main antiplatelet drugs that can be useful in reducing the risk of further TIA and stroke: Aspirin, Dipyridamole and Clopidogrel.

### Aspirin

Aspirin is quite routinely used as a preventative measure in people considered to be at higher risk of developing cardiovascular related illness such as heart disease and stroke. It should however only be used in this way on the advice of your doctor.

Aspirin is very effective in reducing the risk of stroke at low doses (75mg per day) and is also very safe. Aspirin does not suit everybody and some people may not be able to take it.

## **Dipyridamole**

Dipyridamole works in a slightly different way to aspirin, but has the same effect.

It is usually used in combination with aspirin but it can be used as an alternative to aspirin if aspirin can not be tolerated. However it is not suitable for everybody.

## **Combined effect**

Recent studies have confirmed that the combination of taking both aspirin and dipyridamole together is the most effective treatment to reducing the risk of further TIA and stroke.

## **Clopidogrel**

Clopidogrel is mainly used in this context as an alternative to aspirin and dipyridamole because of side effects or allergy.

## **Anticoagulant treatment**

Some people with an irregular heart rhythm such as atrial fibrillation can have a TIA because a blood clot enters the blood stream from the heart. In this case it is likely that they will be prescribed an anticoagulant called Warfarin. It works by preventing blood from clotting and so reduces the risk of TIA or stroke. However as it has this effect on all blood clotting there are associated dangers of bleeding. Treatment with warfarin requires careful monitoring and is not suitable for everybody.

People over 80 are not given warfarin routinely as they have an increased risk of complications from this treatment. The relative risks and benefits have to be discussed carefully before deciding on treatment.

See the CHSS Warfarin factsheet for more detailed information about this treatment.

## Lowering high blood pressure

Controlling high blood pressure involves taking regular medication as prescribed by your doctor; regular blood pressure readings and lifestyle changes. There are many different types of drugs used to do this. If one does not suit you there are others to try so it is important to tell your doctor about any side effects. It is very

*If high blood pressure is combined with another risk factor such as smoking or diabetes then the risk increases greatly.*

important to take your tablets regularly and not to stop taking them suddenly. Eating a healthy diet, reducing salt intake, losing weight, increasing your physical activity and moderating your alcohol intake can all be helpful in lowering high blood pressure.

High blood pressure is dealt with in more detail in the CHSS booklet 'Living with High Blood Pressure'.

## Controlling diabetes

People who have diabetes are considered to be at high risk of developing heart disease or stroke compared to those who do not.

Uncontrolled diabetes causes damage to the blood vessels and the build-up of fatty deposits in the arteries, which increases the risk of heart disease and stroke.

People who have Type 2 diabetes are also more likely to have high LDL ("bad") cholesterol which is a risk factor for heart disease and stroke.

People who have Type 2 diabetes are also more likely to have high blood pressure another risk factor for heart disease and stroke.

So screening for diabetes and controlling it effectively is very important.

## **Lowering cholesterol**

Having a high cholesterol level can contribute to the build up of atheroma in the blood vessels. If your cholesterol is found to be high you will be given advice about how to reduce the amount of fat in your diet. It is also likely that you will be asked to take drugs to lower your cholesterol. The most commonly used group of drugs to do this are called statins. In the presence of cardiovascular illness or diabetes most doctors would like to see total cholesterol levels down to below 4.

See CHSS Cholesterol factsheet for more detailed information.

## **Surgical treatment**

There is a surgical procedure called carotid endarterectomy which can be performed to reduce the risk of a future stroke. This is an operation that clears a severely blocked carotid artery in the neck of debris. It is only effective for severe blockages (>70% occlusion) and will not benefit people with less severe blockages. Both carotid arteries can require surgery but they would not be performed on at the same time. As this operation carries its own risks it will only be considered by specialist surgeons for people who are considered fit enough. These issues have to be carefully discussed before making a decision to have surgery.

**What else can I do to reduce my risk?**

Risk factors tend to multiply the risk of having another TIA or a stroke.

Anyone who has had a TIA is at greater risk. There are several things that you can do to reduce your risk.

**Stop smoking**

Cigarette smoking damages the lining of the blood vessels, increases your blood pressure, makes your blood stickier and is linked to many other serious health problems.

Stopping smoking can be difficult, so seek help from your doctor or practice nurse.

Phone Smokeline for support and a free guide to stopping: 0800 84 84 84.

**Eat a healthy, low fat diet**

Eating five portions of fruit and vegetables a day will provide you with the necessary nutrients for healthy blood vessels. Reduce fat in your diet, especially saturated fat to keep cholesterol levels down.

See CHSS 'Health Eating' factsheet for more detailed information

**Reduce alcohol intake**

The weekly recommended guidelines are 14-21 units for women and 21-28 for men.

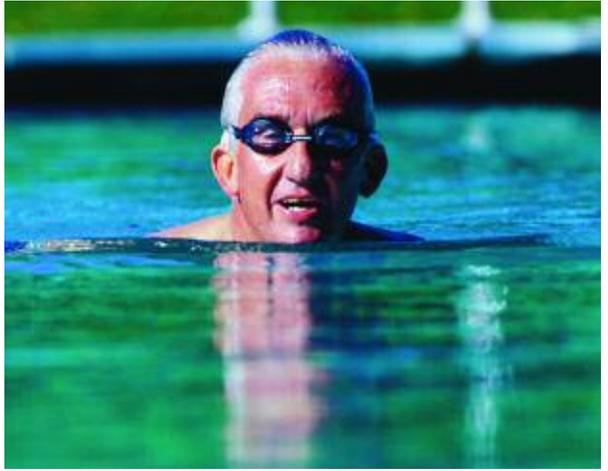
A unit is a single measure of spirit, one small glass of wine or half a pint of beer or lager.

Excessive alcohol raises blood pressure and binge drinking is particularly harmful.

People with stroke or heart illness should try and stick to the lower limit.

### **Increase physical activity**

Taking more exercise brings many benefits. It lowers your blood pressure, helps to control your weight and helps reduce your cholesterol level. It 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.



### **Control your weight**

Being overweight has an effect on your blood pressure, cholesterol level and contributes to diabetes. It may also make you less able to exercise. All of these things are risk factors in their own right.

### **What about the future?**

Unfortunately there are some people who have a TIA or a stroke without any of the more obvious risk factors. Being aware of how to keep yourself as healthy as possible and taking any recommended drug therapy is still very important. Your doctor will help you to identify the risks that apply to you and monitor their progress in the future. Positively changing your lifestyle will help to reduce the risk of further illness for you and your family.

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advice from one of our nurses.**



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The information contained in this booklet is based on current guidelines and is correct at time of printing. The content is also put out to peer, patient and expert review. If you have any comments about this booklet please contact: Lorna McTernan, Publications Manager at the address on the facing page.

# STROKE PUBLICATIONS

## Booklets

- |     |                                 |     |  |
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| SS1 | Stroke a guide to your recovery | SS8 | Coming to terms with a stroke              |
| SS2 | Stroke: a carers guide          | SS9 | Thinking and behaviour issues after stroke |
| SS3 | Reducing the risk of stroke     | H4  | Living with High Blood Pressure            |
| SS5 | Understanding TIA's             |     |  |
| SS6 | Sex after stroke illness        |     |  |
| SS7 | Stroke in younger people        |     |  |

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Resource pack comprising two videos and two booklets

## Stroke Factsheets

- F2 Salt
- F3 Cholesterol
- F4 Warfarin
- F5 Helping someone with language problems
- F9 Driving after a stroke
- F10 10 common questions asked after a stroke
- F11 Mouthcare after a stroke
- F14 Eye problems after stroke
- F15 Memory problems after stroke
- F16 Positioning and stroke
- F25 Stroke -seek medical help
- F27 HRT and stroke
- F29 Swallowing problems after stroke

## General Factsheets

- F6 Holidays
- F7 Insurance companies
- F8 Suggested book list
- F13 Air travel for people affected by chest, heart and stroke illness
- F17 Diabetes: the links with heart disease and stroke
- F20 Illustrated risk factors for ethnic target
- F21 Illustrated risk factors for general target
- F22 How to make the most of a visit to your doctor
- F23 Living with stress and anxiety
- F24 Healthy eating
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