

HAEMORRHAGIC STROKE AND BRAIN HAEMORRHAGE

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Introduction

This factsheet is designed for people who have had a brain haemorrhage, as well as their friends and families.

It explains what an intracerebral haemorrhage is, what haemorrhagic stroke is, what treatments are available, and what to expect after a stroke caused by intracerebral haemorrhage.

Key points to remember:

- Haemorrhagic stroke is a stroke caused by bleeding in the brain. This puts pressure on the brain as well as reducing circulation to other parts of the brain.
- 15 out of every 100 strokes are haemorrhagic.
- Symptoms depend on where in your brain the bleed is, and how much blood escapes into the skull cavity.
- Intracerebral haemorrhage is when the bleeding is directly into the brain, as opposed to a subarachnoid haemorrhage, which is bleeding into the area around the brain.
- A haemorrhagic stroke is diagnosed by taking images of your brain, which will show where the bleed is and the extent of the damage.
- Medication and/or surgery may be offered to help treat haemorrhagic stroke.

Haemorrhage (pronounced **HEM-or-age**) is the medical term for bleeding.

Haemorrhagic (pronounced **HEM-or-ajik**) refers to a condition that involves bleeding.

What is a haemorrhagic stroke?

There are two kinds of stroke, **ischaemic** and **haemorrhagic**.

Ischaemic stroke is where a blockage in a blood vessel prevents blood from getting to the brain. 85 out of every 100 strokes are ischaemic.

Haemorrhagic stroke is where a blood vessel in or around the brain bursts, causing bleeding either directly into the brain (**intracerebral haemorrhage, ICH**) or into the area around the brain (**subarachnoid haemorrhage, SAH**).

This factsheet deals primarily with intracerebral haemorrhage, which causes around **10 in every 100 strokes**. If you would like more information on subarachnoid haemorrhage, the Brain and Spine Association (www.brainandspine.org.uk) has a more detailed booklet.

In Scotland about 800 people every year experience an intracerebral haemorrhage.

What causes a brain haemorrhage?

Intracerebral haemorrhage is most often caused by **age** (ICH is more common among older people) and/or **high blood pressure**.

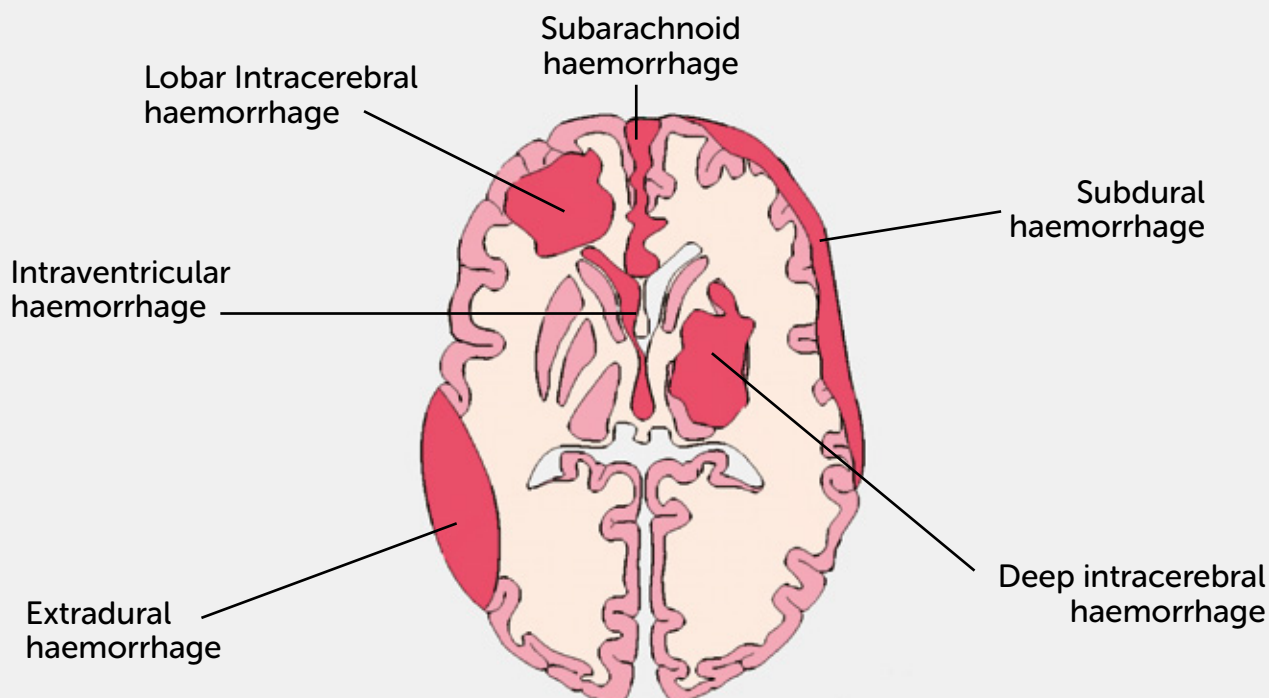
However, it can also be caused by certain pre-existing health conditions which weaken the blood vessels, such as:

- **Brain aneurysm** (a blood-filled bulge in an artery caused by a weakness in the artery's wall)
- **Vascular malformation** (abnormal blood vessels)
- **Head trauma** (a violent injury to the head)
- **Small vessel disease**
- **Cerebral amyloid angiopathy** (a protein buildup which damages blood vessels)
- **Coagulopathy**, also called clotting disorder or bleeding disorder.
- **Excessive drug/alcohol use**, including amphetamines and cocaine
- **Brain tumours**
- **Ehlers-Dahnlos Syndrome (EDS)** and connective tissue disorders

Where is the bleeding?

There are several different types of haemorrhage, depending on where the bleeding has happened. This will affect what symptoms you experience.

The most common places where bleeding occurs are shown below:



How does a brain haemorrhage cause damage?

The damage done by an intracerebral haemorrhage comes from two main things:

- 1 **Bleeding inside** your skull puts physical pressure on the brain. The skull is a closed space, and the blood has nowhere to go, so the brain is "squashed" more and more as the bleed continues.
- 2 **Blood leaks out** before it can reach where it is going, so areas "downstream" of the bleed do not get oxygen and nutrients.

A subarachnoid haemorrhage will only cause the second kind of damage.

What are the symptoms of haemorrhagic stroke?

If you have a stroke caused by a brain haemorrhage, your symptoms will depend on where the bleeding is. Common symptoms include:

- Weakness, numbness, pins and needles, or other strange feelings on one side of the body.
- Difficulty speaking or understanding what others are saying.
- Dizziness or loss of consciousness.
- Blurred vision.
- Seizures.
- Occasionally: a sudden bad headache, vomiting, or a stiff neck

How is a brain haemorrhage diagnosed?

If you have symptoms of a suspected stroke, you or someone with you should call 999 immediately and ask for an ambulance.

Once you are at the hospital, you should have a brain scan to see whether your symptoms are caused by a blockage (ischaemic) or a bleed (haemorrhagic). This may be a **CT** or an **MRI** scan. It should also show where the bleeding is.

It is vital to get this scan as soon as possible so you can get quick, correct treatment.

Within 48 hours of your stroke, you will probably be given an **angiography** scan. This scan will take an image of the arteries in your brain. Under some circumstances, you might be asked to come back 3 months later for a follow-up scan.

Care in hospital

If you have been diagnosed with an ICH, you should be managed on an acute stroke unit. Under certain circumstances, you may be treated in a neurosurgical or critical care unit.

How is an ICH treated?

Medication

If you were taking an anticoagulant medicine (such as warfarin) at the time of your haemorrhage, this will be stopped. You may be given medications to counter the effect of the anticoagulant and help stop the bleeding.

If you were taking an antiplatelet medicine (such as clopidogrel) to reduce your risk of a heart attack or an ischaemic stroke, these were previously also stopped. However, current research by the British Heart Foundation suggests that antiplatelet medication is safe after a haemorrhagic stroke.

If your blood pressure is high, you may be given medicine(s) to lower it. You may also be given medication to manage symptoms of your stroke.

Surgical treatment

You may need surgery to stop the bleeding. The less invasive version of this is **coiling**, where a fine tube (catheter) is inserted into the blood vessel of your arm or leg, and pushed through the blood vessels until it reaches the bleed in your head. A coil is released from the end of the catheter, encouraging blood to clot around it and block the bleeding.

Alternatively, the doctors may decide to do a procedure called **clipping**. In this procedure, the surgeon will open a small hole in your skull and put a small metal clip on the blood vessel to stop the bleeding. Both coiling and clipping are more commonly used for a subarachnoid haemorrhage than for an intracerebral one.

If intracerebral bleeding has put pressure on your brain, you may need **decompression surgery** to remove the blood from your skull. This usually involves a small hole being drilled into your skull for aspiration, and a small tube or catheter being used to suck out the blood. If your bleed is larger, you may need a craniotomy, in which the surgeon removes a portion of the skull to take out large blood clots.

Recovery and rehabilitation

After your stroke, you are likely to need rehabilitation, both in hospital and when you go home.

This might include: physiotherapy, occupational therapy, speech and language therapy.

If you are not very mobile after your ICH, **intermittent pneumatic compression** should be used once the immediate treatment is finished.

This process uses inflatable sleeves around your legs to improve blood flow, reducing your risk of a deep vein thrombosis (a blood clot that can develop in a vein deep in the calf or thigh).

You may be asked to participate in medical research. There is still a lot we do not know about treating ICH, so people who have had one are often approached to help develop scientific understanding of how to recognise, treat, and manage haemorrhagic strokes.

What is the likely outcome?

The outcome after a stroke depends on many things, especially your age, your level of consciousness, and the size and location of the haemorrhage.

Everyone's recovery following a stroke is different. Some people will make a full recovery within days, weeks or months. Others take much longer, and some will never make a full recovery.

Communication, mobility, memory, bladder and bowel control can all be affected, and extreme tiredness is common after a stroke, but there is help available both in hospital and when you go back home.

Haemorrhagic stroke is a severe health emergency, but one out of every two people survive the first month after their stroke, and one out of every four people survive for ten years or more.

How do I prevent another stroke?

If you have been prescribed blood pressure lowering medicines, take them as instructed and ensure that your blood pressure is checked regularly. If you were taking an anticoagulant or antiplatelet medicine before your ICH, it may be restarted after your stroke or it may not. Your doctor should discuss your options with you.

It is important to make any lifestyle changes you can to protect yourself from high blood pressure which may cause another bleed. Maintain a healthy weight. Exercise regularly, eat a healthy varied diet, and drink alcohol sensibly. If you smoke, try to reduce or quit.

Resources

All of Chest Heart and Stroke Scotland's booklets and factsheets can be found online or ordered in print at **www.chss.org.uk/resources-hub**

This includes booklets on:

Stroke: Recovering in Hospital

Stroke: Recovering at Home

Stroke: A Carer's Guide

Reducing the Risk of Heart Disease and Stroke

High Blood Pressure

Coming To Terms with A Stroke

Relationships and Sex After Stroke

Helping with Communication After Stroke

Bladder and Bowel Management After A Stroke

Salt, Cholesterol, Healthy Eating and Healthy Weight

Stopping Smoking

You can also get personal support, information, and advice by calling our Advice Line on **0808 801 0899** or texting **NURSE** to **66777**.

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You can also go to our website for information, advice and support: **www.chss.org.uk**

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