

Women and stroke

Stroke Helpline: 0303 3033 100
or email: helpline@stroke.org.uk

Some things make women more likely to have a stroke. This guide explores some of the risk factors for stroke in women, and lists further sources of information and support.

Women's health and stroke

Some aspects of women's lives can increase our risk of a stroke, like the contraceptive pill, pregnancy and having migraines. But for most women, taking care of your health and managing your risk factors will help you avoid a stroke.

For example, if you are a younger woman who doesn't smoke and is physically active, your risk of stroke will probably be very low.

When you are seeking contraception or having a baby, doctors check if you have any risk factors for stroke. The aim is to spot in advance if you are more likely to have a blood clot or stroke, and avoid it happening if possible.

In this guide we look at the main risk factors affecting women.

These include the contraceptive pill with oestrogen, HRT and fertility drugs, as well as hormones used for gender transition. We also look at the risks associated with pregnancy, and the link with pre-eclampsia. Some health conditions more common in women can affect your risk of stroke, such as migraine with aura, and lupus.

Taking hormone contraceptives

Overall, the risk of stroke from using contraception is low. Some types of hormone-based contraception do carry an increased risk of stroke. However, your risk of stroke should be carefully checked before you are given any of these treatments by the doctor.

So if you are worried, don't stop any treatment until you can talk to your GP or nurse. Ask them about your own risk, and the best contraception for you.

Types of hormone contraceptive and stroke risk

Combined oral contraceptive pill and the contraceptive patch: these contain both oestrogen and progesterone. Treatments including oestrogen can slightly increase your risk of serious problems such as stroke, heart attacks, and blood clots.

So if you have any of the risk factors for stroke such as high blood pressure, smoking or being overweight, you may not be able to use these types of contraceptive. This also applies if you have had a stroke or blood clot before, or have migraine with aura.

Other methods of contraception containing hormones

The progestogen-only contraceptive pill: does not contain oestrogen, the hormone in the combined pill that can raise stroke risk. Progestogen-only treatments are unlikely to raise your stroke risk, but may not be suitable if you have had a stroke or heart disease before.

Contraceptive injection and contraceptive implant: these also use progestogens only and, like the pill, are unlikely to raise your risk of stroke. But you may not be able to have these if you have already had a blood clot, diabetes with complications, a stroke or heart disease before.

The intrauterine system (IUS): a plastic T-shaped device that is placed in your womb and releases a small amount of progestogen into the uterus. It may not be suitable if you have a history of serious heart disease or stroke.

Your GP or your local sexual health clinic can advise you on the different contraceptive options that are available, and what is suitable for you.

For more information on all types of contraception and alternatives to the pill, visit [nhs.uk/contraception](https://www.nhs.uk/contraception).

Stroke and pregnancy

Although the overall risk of stroke in a younger woman is very low, pregnancy and childbirth do slightly increase your risk of a stroke. Stroke is still very rare among pregnant women, but you can help to have a healthy pregnancy by attending all pre- and post-birth appointments.

One reason for the higher risk is that pregnancy makes your blood become more 'sticky' and likely to form clots.

This may be the body's way of protecting you from bleeding during birth. Your blood pressure may rise, and you should have your blood pressure measured at ante-natal appointments to spot the signs of pre-eclampsia.

Because of your age, your overall risk of a stroke is likely to be very low. But you can help to have a safe pregnancy by staying active and keeping your circulation healthy. Having a good diet, staying a healthy weight and stopping smoking will all cut your risk of a blood clot or stroke.

If you have any existing health problems like diabetes or high blood pressure, make sure your GP and midwife know. You may need to change medications or get extra monitoring.

The chance of a stroke or blood clot is higher all through pregnancy, but the most risky time is the first few weeks after birth. So keep an eye out for the stroke FAST signs, and blood clots. Signs of a blood clot in your lungs include chest pain and difficulty breathing.

Pre-eclampsia

Pre-eclampsia can affect any pregnancy, and one of the main signs is high blood pressure. All pregnant women should have their blood pressure checked regularly to help spot the early signs of pre-eclampsia.

Signs of pre-eclampsia include headaches, abdominal pain just below the ribs, visual disturbances, nausea and vomiting, and swollen hands and feet.

If you have the signs of pre-eclampsia you need to get medical help straight away. If the symptoms are mild, you may be able to return home and have your blood pressure closely monitored. You can have medication to treat the high blood pressure.

If you are diagnosed with pre-eclampsia, you'll be monitored carefully until it's possible to deliver the baby.

Gestational diabetes

Some pregnant women develop gestational diabetes, which stops after you give birth. Having gestational diabetes makes you more likely to develop pre-eclampsia, so it's linked to a slightly increased stroke risk. You will get advice about controlling your blood sugar and any treatment you might need. You have an increased risk of developing diabetes in later life, but having a healthy lifestyle can help you stay well for longer.

Hormone replacement therapy

Hormone replacement therapy (HRT) tops up your levels of hormones to control menopausal symptoms such as hot flushes, vaginal dryness and mood swings.

There are different types of HRT which use oestrogen and progestogen in different combinations or alone. HRT tablets containing oestrogen cause a small increase in your risk of stroke. However if you use a patch or a gel form of HRT with oestrogen, this does not increase your risk of clots or stroke.

If you have a family history of blood clots, you may need some extra checks before receiving HRT. Like the combined contraceptive pill, the increase in risk from taking HRT tablets is very small, particularly if you are under 60. So provided you are in a low-risk group, or your risk factors are well managed, your overall risk is still very small.

To find out more about your stroke risk and taking HRT, speak to your GP. For more information on HRT visit [nhs.uk/conditions/hormone-replacement-therapy-hrt/](https://www.nhs.uk/conditions/hormone-replacement-therapy-hrt/)

Fertility drugs and IVF treatment

The hormones used to increase fertility or to prepare for in-vitro fertilization (IVF) can have rare complications that may increase the risk of blood clots and stroke.

Ovarian hyperstimulation syndrome

Ovarian hyperstimulation syndrome (OHSS), when the ovaries swell, happens in around a third of IVF cycles. Most cases are mild. A very small percentage may lead to serious complications such as pain, breathing difficulties and blood clots in the veins. If you are having IVF it's important to get help with any symptoms of OHSS as soon as possible.

If you are having or considering having IVF treatment, you can ask your doctor about the effect on your risk of stroke, and what you can do to manage any risk factors you may have.

Hormones for gender transition

Like the hormone treatments used for female contraception, the hormones used for gender transition can slightly increase your risk of stroke. Oestrogen used for transitioning from male to female can raise your risk of a blood clot. It can also raise levels of bad (LDL) cholesterol, which is linked to fatty deposits in your arteries. The hormones used for men and women could make you more likely to develop insulin resistance, which can lead to type 2 diabetes.

There isn't a large amount of research available on this subject, but doctors will assess your individual risk and discuss the options with you. You can keep your risk of blood clot and stroke low by having a healthy lifestyle. Look for tips for being active, quitting smoking and healthy eating on [stroke.org.uk](https://www.stroke.org.uk).

Migraine

Migraine affects more women than men. There are two types of migraine: migraine with aura and migraine without aura. The aura usually happens at the start of a migraine attack, before a headache begins. It often includes visual changes such as seeing flashing lights or dark patches.

People with migraine, particularly with aura, have roughly twice the risk of an ischaemic stroke (a stroke caused by a clot). Because of this link, women who have migraine with aura are advised not to take the combined contraceptive pill.

It is important to remember that your individual risk is still small, particularly if you don't have many other risk factors for stroke.

Lupus and SLE

Lupus is an autoimmune condition that mainly affects women. It tends to appear more often among people of African, Caribbean and Chinese descent. Some forms of lupus mainly affect the skin, but it can also cause fatigue and joint pain with irregular flare-ups.

The severe form of lupus is called systemic lupus erythematosus (SLE). This can cause kidney damage leading to high blood pressure, which makes a stroke more likely.

There is no cure for lupus itself, but you can treat the symptoms such as pain and high blood pressure. If you have SLE, your kidneys should be monitored, and kidney problems can be treated with immunosuppressants. You can also take steps to reduce your risk of a stroke by making healthy lifestyle choices like eating healthily, not smoking and taking plenty of exercise.

Blood-thinning medication and women's health

If you have had blood clots or a stroke before, you may need to take blood-thinning medication. This is usually a long-term treatment, and it's important to take the medicines as prescribed to help you stay healthy.

Heavy periods due to blood-thinning medication

Some women find that blood-thinning medication can give them heavy periods or vaginal bleeding between periods. If this happens to you, tell your GP.

Heavy periods can lead to low iron levels in your blood (anaemia). This needs to be treated with medication and sometimes blood transfusions. If your bleeding suddenly becomes much heavier, get medical help as soon as possible.

How can heavy periods be managed?

Your GP or pharmacist can discuss the options with you. Some women find that using an intrauterine system (contraceptive coil) reduces the bleeding. After the first few months of taking the medication, you might be able to go onto a slightly lower dose, as long as the doctor thinks your risk of a clot or stroke is under control. Don't stop taking blood-thinning medication or reduce your dose without speaking to your GP, or you may be at risk of a stroke.

Blood-thinning medication and pregnancy

You can't take most type of anticoagulant (blood-thinning) tablets while you're pregnant. So if you are pregnant or planning to have a baby, speak to your GP or midwife about this as soon as possible. You will need help to manage your risk of a stroke or blood clots while pregnant. This can include having an injectable anticoagulant such as heparin.

Stroke facts

Women tend to have strokes later in life than men. But overall, more women die of stroke than men. This is probably because women live longer than men and tend to have their strokes when they are older.

What is a stroke?

A stroke is a brain attack. It happens when the blood supply to part of the brain is cut off, killing brain cells. Damage to the brain can affect how the body works. It can also affect how you think and feel.

There are two main types of stroke. Ischaemic stroke is due to a blocked blood vessel in the brain. It is often referred to as a clot, and around 85% of stroke are ischaemic. A haemorrhagic stroke is due to bleeding in or around the brain, and is often called a bleed. About 15% of strokes are haemorrhagic.

Cerebral venous thrombosis (CVT)

Cerebral venous thrombosis (CVT) is a rare type of stroke that affects women more often than men. It happens when a blood clot forms in the space between the brain and the skull. This blocks blood draining out of the brain. It can cause stroke symptoms, and sometimes leads to bleeding in the brain.

The main symptom is often a headache, but you can also have signs of stroke such as confusion, seizures and weakness down one side. Symptoms might come on more gradually than a typical stroke. But you should get medical help as soon as possible. It may be treated with an injection of the anticoagulant heparin, and you might be given blood-thinning medication to reduce the risk of another clot.

CVT is more common in pregnant women, or those using contraceptives with oestrogen. It can also be due to infections in your ear or face, as well as blood-clotting conditions.

How can I stay healthy and avoid a stroke?

In this section we give some ideas for improving your overall health and making healthy lifestyle choices. You can find more information and ideas at stroke.org.uk.

Things to think about

As you get older, your stroke risk goes up over the years. But by staying active and having a healthy diet and lifestyle, you can feel good and stay healthy for longer.

Some health conditions are strongly linked to stroke, including high blood pressure, atrial fibrillation, diabetes and high cholesterol. If you have any of these conditions, sticking to any treatment you're given can significantly cut your risk of a stroke.

Stroke can run in families, so speak to your GP if several close relatives have had a stroke or heart attack. People from some ethnic groups, such as South Asian and African and Caribbean people, have a higher risk of stroke compared to the general population. To find out more about your individual risk of stroke, ask your pharmacist or nurse for a health check and advice.

A stroke can happen to anyone, at any age, but there are many things you can do to stay well and active.

Be as active as you can

Moving around more and being as active as you can day-to-day will make a big difference to your health and wellbeing. You don't have to join an organized fitness activity like the gym. Walking, dancing, housework, gardening and swimming all get your body moving and help strengthen your heart and lungs. Start slowly and build up the amount you move bit by bit.

Being physically active has all sorts of benefits, including lowering blood pressure, reducing cholesterol and controlling blood sugar. On top of that it can make you feel good and help you deal with emotional problems.

Eat a healthy diet

Adding more vegetables and fruit to your diet can help you manage blood sugar levels and high blood pressure. Eating more fresh and home-made food can cut your salt intake, and reduce your blood pressure.

Eating fresh food can also help you lose weight if you need to. Cutting the amount of saturated (hard) fats in your diet and eating more unsaturated fats (such as vegetable oils) will help lower cholesterol levels.

Waist size

Being overweight makes you more likely to have a stroke, and it can also stop you having some types of contraceptive pill if your stroke risk is seen as high.

Having a good diet and being active can help you stay a healthy weight. But many people trying to lose weight find it's helpful to have some support such as a club or using a weight-loss app. If you need some advice, speak to your local pharmacist about help available locally.

Quit smoking

Smoking doubles your risk of dying from a stroke. But when you quit, your risk of a stroke starts to drop right away. So stopping smoking could be one of the best things you can do for your health.

Because smoking raises your risk of a stroke and makes you more likely to have a blood clot, it can stop you having the contraceptive pill if your stroke risk is seen as being high.

You don't have to do it alone. Help is available for giving up, including nicotine replacement products on prescription and the Stoptober app. Talk to your GP or pharmacist to find out about local stop-smoking services. There might be a local face-to-face support service you can access.

Reduce drinking

Regularly drinking too much alcohol raises your risk of a stroke. It raises your blood pressure, especially if you drink a lot in one go. Regularly drinking large amounts over time can lead to high blood pressure.

The UK safe limit for alcohol is 14 units a week. That's the same as about seven medium sized glasses of wine, or about six pints of beer. It's the same limit for men and women. If you feel you are drinking too much, look for some advice on cutting down. There are resources online at drinkaware.co.uk and your GP or pharmacist can advise you about help available locally.

Where to get help and information

From the Stroke Association

Helpline

Our Helpline offers information and support for anyone affected by a stroke. This includes friends and carers.

Call us on **0303 3033 100**, from a textphone **18001 0303 3033 100**
Email helpline@stroke.org.uk.

Read our information

Get more information about stroke online at stroke.org.uk, or call the Helpline to ask for printed copies of our guides.

My Stroke Guide

The Stroke Association's online tool My Stroke Guide gives you free access to trusted advice, information and support 24/7. My Stroke Guide connects you to our online community, to find out how others manage their recovery.

Log on to mystrokeguide.com today.

Other sources of help and information

All organisations listed are UK-wide unless otherwise stated.

Action on Pre-eclampsia (APEC)

Website: apec.org.uk

Tel: **01386 761 848**

Email: info@apec.org.uk

Set up to raise awareness, and to ease physical or emotional suffering caused by this disorder. Runs a helpline, a telephone befriending service, an online support group, and publishes leaflets on pre-eclampsia.

Diabetes UK

Website: diabetes.org.uk

Diabetes Careline: **0345 123 2399**

Email: Helpline@diabetes.org.uk

Helpline in **Scotland**: **0141 212 8710**

Email: helpline.scotland@diabetes.org.uk

Information and support for all people with diabetes.

The Migraine Trust

Website: migrainetrust.org

Leading patient support and research charity for migraine. Can provide details of specialist migraine clinics.

Women's Health Concern (WHC)

Website: womens-health-concern.org

A charity aiming to provide unbiased, accurate health information about the menopause and other aspects of sexual health. Runs a telephone helpline and email enquiry service provided by a team of nurses. Publishes a range of factsheets and leaflets on women's health issues.

About our information

We want to provide the best information for people affected by stroke. That's why we ask stroke survivors and their families, as well as medical experts, to help us put our publications together.

How did we do?

To tell us what you think of this guide, or to request a list of the sources we used to create it, email us at feedback@stroke.org.uk.

Accessible formats

Visit our website if you need this information in audio, large print or braille.

Always get individual advice

This guide contains general information about stroke. But if you have a problem, you should get individual advice from a professional such as a GP or pharmacist. Our Helpline can also help you find support. We work very hard to give you the latest facts, but some things change. We don't control the information provided by other organisations or websites.

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