

Balance problems after stroke

This guide explains how stroke can affect your balance, what can help, and how you can look after yourself if your balance is affected.

How does balance work?

Balance involves the coordination and stability of our bodies in our surroundings. It affects most day-to-day activities, such as moving around and reaching for objects. If your balance is impaired after a stroke, you may feel dizzy or unsteady. This can reduce your confidence and increase your risk of having a fall. If your balance problems last for a long time, you might find that they affect your quality of life.

Balance is very complex and involves many different parts of the body such as your ears, eyes, and sensory nerves in your muscles and joints.

Balance problems and dizziness can also be caused by a number of health problems other than stroke. Treating an underlying condition can help improve your balance, and your GP can advise you about health checks and treatments available. Some of these conditions are covered in this guide, but you always need to take individual advice from a qualified health professional about any problems you may have.

How can your balance be affected by stroke?

To have good balance, different parts of the body, like the brain, eyes and limbs, need to work well together. A stroke can affect your balance system, and the way in which the parts work together. Usually your body can overcome mild problems, but if they are more severe, your system will be unable to work effectively and you will probably feel unsteady.

Weakness on one side of your body

A stroke often causes weakness on one side of your body, which can make it difficult to balance. At worst, you may find it difficult to sit up safely, or you may have difficulty standing. You may be able to walk but find that you cannot lift your toes quickly enough to stop them catching on the ground when you step. This is known as foot drop, and it can make you feel unsteady or more likely to trip. Or you may find that you have less energy, so that you tire easily and then become unsteady.

Loss of sensation

The second main factor affecting balance is loss of sensation in your affected side, particularly your legs. If you cannot feel where your leg and foot are, especially

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when your foot is safely on the ground, it is very difficult to know how to move. You will automatically use your vision to compensate for the lack of feeling, which takes a lot of concentration and is tiring. It also means that you may be less aware of your surroundings. All of this increases your risk of having slips, trips and falls.

Vertigo

If a stroke happens in your cerebellum or brainstem – the areas that control balance in the brain – you may be left with vertigo. This means having a feeling that you or the world around you are moving or spinning. You can feel dizzy or lose your balance.

Concentration problems

After a stroke, moving around and keeping your balance may require more concentration, which is hard work. If your attention is distracted, it might be harder to concentrate on your balance. Many people who fall report that they were not paying attention, were thinking of other things or doing several things at the same time when they fell. One example is walking and talking at the same time - some stroke survivors stop walking if you speak to them. Other examples include coping with unpredictable situations such as crowds and uneven surfaces, turning or changing direction when walking or carrying things.

Perceptual problems

Some strokes can affect your ability to interpret your surroundings. It can be difficult to maintain your balance and plan how to move if you are unsure of your own position in relation to the space around you.

Neglect

Spatial neglect, or inattention, means that your brain is not processing sensory information from one side. You might not be aware of one side of your body, and the space to that side. People with neglect may try to move but forget to move their weak leg, causing loss of balance. They might bump into or trip over objects they can't perceive, causing a fall. Some people experience the sensation that they are upright even when they are leaning heavily to their weak side, sometimes to the extent that they cannot sit up safely. This is called 'pusher syndrome' and sometimes happens in the early days after a severe stroke.

Vision problems

Vision is an important aspect of balance. Visual problems are quite common after stroke. They vary and include difficulty focusing, double vision, eye movement problems and blind patches. See our guide *F37, Visual problems after stroke* for more information. It can be harder to make the subtle and rapid adjustments to your posture and movements to maintain your balance if you cannot see clearly around you.

Ataxia

Ataxia is the name for clumsy, uncoordinated movements. It is associated with strokes that happen in the back of the brain (cerebellum or posterior circulation).

People with ataxia have difficulty producing movements quickly enough, and in the right order, to avoid losing their balance or to recover from a trip or slip.

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Side effects of medication

Some medicines commonly prescribed after stroke can cause dizziness or weakness. Some anticoagulants can cause dizziness, as well as some drugs for high blood pressure. Withdrawal from antidepressants can cause dizziness. Interactions between different medicines can also affect your balance. Talk to your doctor if you have any concerns about the medicine you are taking, as you may be able to try new drugs or a different combination of drugs. Never stop taking any medication without speaking to your doctor first.

Other causes of balance problems

A range of other conditions not directly related to stroke can also cause dizziness and loss of balance. These include inner ear infections, migraines and confusion due to a urinary tract infection.

What help is there for balance problems?

Dizziness symptoms can vary in severity and how long they last. The problems caused by stroke may mean that you are not able to move straight away. Being unable to move for a long time may affect how long it takes your balance problems to improve.

From 24 hours after a stroke, with your therapists' help, you can try to help your recovery by starting to get moving. Improvement tends to be fastest in the first few days or weeks after stroke, but can continue slowly for months or even years. However, everyone is different and there is no fixed time for recovery.

Physiotherapy

A physiotherapist can assess you and recommend therapy or exercises that may help you to recover. You should see a physiotherapist while you are in hospital. If you have left hospital, your GP can refer you for physiotherapy. Private physiotherapists and some NHS services will accept a self-referral where you can go to them directly to request assessment and treatment. For more information, please see our guide F16, *Physiotherapy after stroke*.

Balance retraining exercises

Exercise and balance retraining are very effective ways to treat balance problems. To be effective the exercises need to be:

- **intensive** – you need to do as much as you can, as often as you can
- **individual** – you need to work on the things that you find difficult
- **functional** – when it is safe to do so, you need to practice the everyday activities that you find difficult, such as standing up and sitting down, negotiating uneven surfaces and obstacles, changing direction and speed, walking up stairs
- **progressive** – you need to move on to more challenging activities to keep improving.

Keeping your balance while sitting up in bed or on a chair may be the first thing your therapist addresses with you. Then they will start getting you to balance whilst standing, perhaps with the help of a hoist, or the support of other people.

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Exercises may then include step-ups, moving from sitting to standing position, practising reaching for objects and standing on unstable surfaces.

Balance retraining may take place in one-to-one sessions with a physiotherapist. You may do exercises they prescribe in your own time (in hospital or at home), or in a group run by a physiotherapist either in hospital or in a community setting.

Exercises can take many forms and should be supervised by a physiotherapist who will provide individually tailored activities to progressively challenge you. People sometimes feel worried or scared about falling while practising exercises. If you are concerned, ask your therapist for advice to help you continue with your exercises and make the best possible recovery.

Exercise groups

Some stroke clubs and other community groups run exercise classes or offer other services to help people with disabilities stay active. Contact us for information on stroke clubs near you (see *Where to get help and information*), and see our guide R07, *Exercise and stroke* for more ideas.

Treadmill training

Treadmill training may be useful as part of a programme to gradually increase your stamina. This may be available at your local physiotherapy department, or many areas offer an 'exercise prescription scheme' (different names are used in different areas). This lets you work with a fitness trainer who is trained to work with people with disabilities at your local gym or fitness centre. They will be able to adapt the exercises and equipment to your needs. Your GP can tell you what is available in your area.

Gaze stabilisation

Gaze stabilisation exercises can help people with ongoing dizziness and vertigo. They need to be prescribed carefully and should be delivered by a physiotherapist who specialises in dizziness.

Equipment to help with balance problems

A simple walking stick or four-point cane can improve your stability and improve your confidence, especially when walking outside. Even if you do not need to lean on the stick for support, people will often give you a little more time and space. It is important that any equipment is the correct size for you, so get professional help when choosing.

If you have foot drop – difficulty lifting your foot off the ground when walking – you may be offered an ankle-foot orthosis. This splint lifts your toes and supports your ankle so you can put your weight on your leg when you stand without catching your toes when you step forward. Your physiotherapist can prescribe a splint or may refer you to the local orthotics department. See our guide F33, *Physical effects of stroke* for more information on drop foot and the treatments available.

I'm worried about falling, is there any help available?

Most areas offer services to support people at risk of a fall. In some areas this is called a falls service or a falls prevention service. The way services run varies, but they all offer rehabilitation for people who have been injured in a fall and advice on how to prevent falls and injuries in the first

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place. They will help you address issues including:

- any other conditions you have which may increase your risk of a fall
- reviewing your medication to make sure it is not causing side effects that increase your risk of a fall. If you take long-term medication, it should be reviewed at least once a year, particularly if you take four or more types of medicine a day
- vision problems
- your feet and footwear
- your home environment, to see if there is anything that increases your risk of a fall or whether simple adaptations (like a hand rail for steps, or a seat to help you get in and out of the bath) could help.
- they may also offer exercises (possibly in a group setting) to strengthen your legs and improve your balance.

If you have fallen or you feel unsteady and at risk of falling and hurting yourself, ask your GP to refer you for help, such as your local falls service.

Tips to avoid a fall

The following tips may help to prevent you from having a fall.

- Keep all floors clear of trailing wires, frayed carpet or anything else you might trip on.
- Mop up any spills straightaway.

- Organise your home so that you are less likely to bump into things. Remove clutter and arrange your furniture so that you do not have to walk around it. Move frequently used items from high cupboards so that they are easily accessible.
- Often falls happen when people are not paying attention, are thinking of other things or doing several things at once. Try to avoid doing two things at once such as walking and talking on the phone.
- Focus on your movements when you are doing anything tricky like turning, going up and down stairs, or getting in and out of the bath or bed. These are all common times when falls happen. Step around carefully when you are turning (rather than twisting), hold on to whatever solid objects are around and take your time. Use aids if you have them and get someone to help if you need to.
- Move at a speed that you find comfortable. Don't feel rushed by pressures of everyday life to do things more quickly.
- Talk to an occupational therapist about getting handrails for the stairs and bathroom. Your GP can refer you to see one.
- Use high wattage light bulbs so you can see clearly, particularly around stairs. If you get up in the night, make sure you turn the light on.
- Keep your home warm – cold muscles work less well and this can lead to accidents.

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- Remember to use any walking aids, such as sticks or frames that your therapist has recommended.
- In case you do have a fall, you may want to consider getting a personal alarm. See our guide R03, *Aids and equipment for independent living*.
- Wear well-fitting shoes or slippers with thin soles, high sides and a good grip. Never walk on slippery floors in socks or tights.
- Talk to a podiatrist (also called a chiropodist) about any foot problems – these can increase the risk of falls if left untreated. Your GP may be able to refer you to one, or details will be in your local phone book.
- Have regular eye tests. Wear any glasses that have been prescribed for you.
- Ask for help with tasks that you cannot carry out safely, or leave them if they are less important.

Where to get help and information

From the Stroke Association

Talk to us

Our Stroke Helpline is for anyone affected by a stroke, including family, friends and carers. The Helpline can give you information and support on any aspect of stroke.

Call us on **0303 3033 100**, from a textphone **18001 0303 3033 100** or email **info@stroke.org.uk**.

Read our publications

We publish detailed information about a wide range of stroke topics including reducing your risk of a stroke and rehabilitation. Read online at **stroke.org.uk** or call the Helpline to ask for printed copies.

My Stroke Guide

My Stroke Guide is the online stroke support tool from the Stroke Association. Log on to find easy-to-read information, advice and videos about stroke. And our chat forums can connect you to our online community, to hear how others manage their recovery. Log on at **mystrokeguide.com**.

Our dedicated Enquiry Line is on hand to support you with using My Stroke Guide. Call **0300 222 5707** or email **mystrokeguide@stroke.org.uk**.

Other sources of help and information

Age UK

Website: www.ageuk.org.uk

Tel: 0800 055 6112

Provides information on health and wellbeing including tips on strength and balance.

Ataxia UK

Website: www.ataxia.org.uk

Tel: 0845 644 0606

Provides a range of services to support people with ataxia.

Chartered Society of Physiotherapy (CSP)

Website: www.csp.org.uk

Tel: 020 7306 6666

Offers a search facility for finding a qualified, private physiotherapist.

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

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Together we can conquer stroke.

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