

Physiotherapy after stroke

If a stroke causes damage to the part of your brain that controls movement, you may experience weakness or paralysis on one side of your body and problems with moving and carrying out everyday activities. This factsheet explains how physiotherapy can help you to recover, what your treatment might involve and how you can see a physiotherapist.

How can a stroke affect my movement?

- You may experience **weakness**, or even complete **paralysis** (called hemiplegia) in the muscles of one side of your body. This can make it difficult to move or use your limbs and get about. Your limbs may move in a different way when you try to use them. For example your hip may move upwards when you want to step forwards, or your elbow may move out to the side when you want to lift something.
- The affected side of your body may **feel different**. Your limbs may feel heavy because the weakness makes them difficult to move, or they may feel numb (like after you have had an injection at the dentist). Some people have more unusual sensations such as pins and needles, hot and cold sensations or feel as though water is running down their limb. Occasionally they can be painful.
- You may have problems with your **posture and balance**, making it difficult to stay upright and you may be more likely to have a fall.

- **Joints** on your affected side, such as your shoulder, may be vulnerable to injury, for example if your arm is pulled or its weight is allowed to 'drag.' This can cause a partial dislocation (called subluxation) or 'frozen shoulder', where your shoulder becomes painful and difficult to move.
- Some muscles on your affected side may become **stiff** (most often at the wrist, fingers and the ankle) which can limit your movement at the joint and some people may develop muscle spasms or a type of stiffness called spasticity.

You can read more about these effects of stroke in our factsheets *F33, Physical effects of stroke* and *F22, Balance problems after stroke*.

What is physiotherapy?

Physiotherapy is an important part of your rehabilitation. Techniques such as **exercise, manipulation, massage, skills training and electrical treatment** are used to help you heal and recover your movement. The main focus of physiotherapy after your stroke is to help you learn to use both sides of your

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body again and regain as much strength and movement as possible.

Neurophysiotherapy is a type of physiotherapy designed to treat problems that originate within the brain, and it is important that you receive this for at least part of your recovery. A neuro-physiotherapist is trained to understand and treat the changes caused by neurological conditions (ones that affect the nervous system, including stroke).

How can physiotherapy help?

After a stroke, our brains cannot grow new cells to replace the ones that have been damaged, so your recovery depends on your brain's ability to reorganise its undamaged cells and make up for what has been lost. This is called **neuroplasticity**. Physiotherapy can provide expert practical guidance to help.

Physiotherapists often work with other members of the stroke team to make sure they can help with the range of problems that stroke can cause. The team may consist of occupational therapists, speech and language therapists, doctors, nurses and social workers (plus other specialists). This team is called the **multidisciplinary stroke rehabilitation team**.

You may like to see our factsheets *F14, Speech and language therapy after stroke* and *F17, Occupational therapy after stroke* for more information.

Depending on your needs, your physiotherapist will:

- help the stroke nurses set up your plan of care to keep you as well as possible and

avoid any complications that might slow down your recovery

- advise on how you should be positioned, when lying or sitting, and how often you need to be moved
- decide when you should begin to get up out of bed and start walking and what equipment (if any) is needed to move or support you
- motivate you to be actively involved in your physiotherapy sessions to help you relearn normal patterns of movement
- offer therapy to strengthen your limbs and teach you how to move again, as independently as possible
- work together with the rehabilitation team, and your carer, family or friends to support your recovery in a co-ordinated way
- advise you, your family and any carers how you can do as much as possible for yourself, and move around as much as possible.

It is important to be **as active as possible as soon as you can** after your stroke, so the team will encourage you to get up and about as much as you are able to, whether this is continuing with your previous activities or just sitting in a chair.

In the early stages, and for people with relatively mild problems, physiotherapy will focus on **preventing complications** and **restoring your ability to move** and be active again.

As time goes on, and for people with more

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severe problems, a full recovery is less likely and so physiotherapy focuses on helping you to become more independent and do what is important to you, for example using equipment or doing things a different way.

Where will I have therapy?

Where therapy will take place will depend on how severe your stroke is and how your local rehabilitation services are organised. If you were admitted to hospital following your stroke, your physiotherapy will begin there with exercises in bed and moving around on the ward. Once you are ready, you should progress to more active sessions, which you will probably receive in a rehabilitation area or special physiotherapy gym.

You may be moved out of the stroke unit to a different ward or **rehabilitation unit** to continue your treatment. In some places a **specialist community rehabilitation** team will support you to continue your recovery at home. Other places offer a transition period between hospital and home in an **intermediate care centre**.

If you had a **transient ischaemic attack** (often called a TIA or mini stroke), you can still have physiotherapy even if you were not admitted to hospital, or didn't see a therapist while in hospital. Ask your GP to refer you to a hospital stroke team or community rehabilitation team for help with any persisting problems. You may also be able to refer yourself.

What does physiotherapy involve?

Early assessment and care

Following your stroke, you should be

assessed by a physiotherapist as soon as possible after being admitted to hospital. This assessment should take account of any **health problems** you had before your stroke, and should make sure that any **movement problems** are identified at the start, so that care can be organised to give you every chance of making a good recovery.

Good care in the early days is important to help **prevent joint stiffness or muscle tightness**. If you are confined to a bed or chair, the therapist will start by changing your position to improve your posture and balance, and make you feel more comfortable.

If you have one-sided paralysis, correct **positioning** is important to prevent spasm or injury. If you are unable to move, you will need a special mattress and the nurses may need to move you at regular intervals (usually every two hours) to prevent bed sores.

If you are unable to move, you may be given **chest physiotherapy** to keep your lungs free of infection. If possible, you should be helped to sit up, as this will help avoid blood clots in your legs, improve your breathing and help your recovery.

If you're still having major problems after 24 hours, then you will need a full multi-disciplinary assessment by the rehabilitation team, ideally within five working days.

Moving again

If your symptoms don't improve in a few days and you are medically stable, your physiotherapist will use more **active therapy** to teach you how to do the things you are having difficulty with and get your limbs moving again.

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The more therapy you have and the more active you are after a stroke, the better. Guidelines recommend that while undergoing rehabilitation in hospital, you should receive at least **45 minutes of physiotherapy per day** (plus any other types of therapy you need).

Once you are medically stable, the aim will be to get you **moving as soon as possible**. This will include moving around your bed, then from bed to chair, sitting to standing, walking with and without support and finally climbing stairs. This is likely to be a gradual process, and it is important to get each step right, so that you will end up with a balanced way of moving.

It is more difficult to sit up safely in bed than in a chair, so you may soon find yourself sitting in a suitable bedside chair with your affected side supported by pillows. This will help re-establish your balance and a sense of your mid-line (the imaginary line that divides your body into left and right sides).

When you are ready, the therapist will get you onto your feet using a hoist or two or three extra helpers. This will give you a chance to support your own weight and **encourage you to use the muscles** of your trunk, hips and legs. Your therapist may not encourage you to walk straightaway if you need time to recover your strength and flexibility.

Exercises

Research has shown that the most effective types of physiotherapy are **exercises and practising specific tasks** that you aren't able to do well. So if you are having difficulty keeping your balance when standing, you need to practise standing up a lot; if you

have difficulty lifting your arm, you need to practise doing activities which make you lift your arm, and if you are having difficulty walking you need lots of walking practice.

There are many ways to do this. You will work on a one-to-one basis with a physiotherapist, particularly on the tasks and the movements you are just learning to do. You may also work with a physiotherapy assistant, in a group, or have tasks and activities for you to practise on your own outside of therapy sessions.

You may be offered **treadmill training** or intensive training programmes for your upper limb such as **constraint induced movement therapy** – where your 'good' arm is restrained so you have to carry out tasks with your affected arm.

Research clearly shows that the main physical problem facing stroke survivors is weakness in their limbs, and that this can be improved with **strengthening exercises**. Exercise to build up your stamina and stretching exercises to prevent muscle and joint stiffness are also beneficial.

There are different ways that you can do these exercises. You may exercise under the supervision of the physiotherapist and/or an assistant, attend a group exercise or circuit training class, or work individually in a gym or independently in your own time outside a formal therapy session. **Talk to your physiotherapist about what is suitable for you.** For more general information about exercise see our resource sheet *R7, Exercise and stroke*.

Equipment

Although most people regain the ability

to walk, some do not and others are only able to walk short distances such as around the house. If this is the case for you, your physiotherapist and occupational therapist will get a wheelchair for you and teach you and your carers and how to use it.

They will also arrange for any other **equipment** you may need (after a thorough assessment) such as a hoist to help you get in and out of a chair or bed, or adaptations to the house when you go home – such as a ramp or wider doors.

Physiotherapists can provide **other equipment to help you get about more easily** such as walking frames, rollators (walking frames with wheels) and sticks. Your physiotherapist can also provide or refer you for more **specialist help**. If you have drop foot (a condition where you cannot lift your toes properly when walking) this could include an ankle-foot orthosis (a type of splint) or Functional Electrical Stimulation (using an electrical current to stimulate the muscles in the ankle).

If you have spasticity, it could include prescribing Botox injections and/or a stretching regime. If your physiotherapist does not provide this service directly, they will be able to refer you to another specialist service.

Your hopes and plans

Your therapist will work with you to set a number of goals. This will also take into account your priorities, hopes and plans and is a way to make sure that your treatment is focussed on the things that are important to you. Your goals will depend on how severe your stroke is, your previous abilities, and the life you hope to lead in the future. Your

goals may be small to start with and involve a simple task, such as reaching for and grasping an object. Each goal you achieve will be a positive step forward and will help to keep you motivated.

How can my family or carer help?

It is possible for members of your family and/or any carers to **attend rehabilitation sessions** with you. They can be involved in your on-going exercises and rehabilitation after you have left hospital. Your physiotherapist may also show your family or carer how to help you practise your exercises and include them in everyday activities.

If you need help with daily tasks such as getting dressed, getting in and out of bed or going up and down stairs, your physiotherapist (and other members of the team) will teach your family or carer how to help and use any equipment you have been given.

What happens when I leave hospital?

If you need further therapy after leaving hospital, there are many options available. If you can't get around very easily or you need a lot of support, you can be referred to a **community rehabilitation team** who will see you in your home. If you only require physiotherapy and/or you are able to travel easily then you may be referred to a physiotherapist based in the **outpatients department** of your local hospital.

Where you continue your therapy depends on your abilities, your needs and preferences, and how services are organised locally. This should be explained

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and discussed with you. Wherever you are referred for ongoing physiotherapy, the referral should be made before you leave hospital and you should be given a named person and number to contact.

When you get home, try to **keep as active as you can** to look after your health and reduce your risk of having an accident or fall. Your physiotherapist can advise you about ways to continue improving your strength and overall health, and give you activities you can do to help you to stay healthy.

Some areas have an '**exercise referral scheme**' where you can exercise in your local gym or leisure centre under the guidance of a fitness instructor who has been trained to help people with disabilities. Ask your GP for information.

When will my therapy end?

Most people recover quickly in the first weeks after their stroke. After approximately three months, the recovery period usually slows down. After this time, improvements usually happen because you have become fitter, stronger and more able to use your body, rather than due to recovery from the damage caused by the stroke itself. **This does not mean that you cannot benefit from physiotherapy after this time**, but the improvements are usually a matter of getting better at what you can already do, rather than gaining new skills.

It is recommended that if you have ongoing difficulties resulting from your stroke, you should continue to have rehabilitation (including physiotherapy) for as long as you need. This means for as long as you have **clear goals** and the therapy is helping you make progress towards them.

You should also be **reassessed six months after your stroke** to see if you need further treatment – or a change to your treatment plan – and then annually after that. At any time, if new problems arise or old ones resurface, you can ask your GP or consultant to refer you back to a physiotherapist for a reassessment. Many services now operate a 'direct referral' system, where you can contact the team or department directly to make an appointment without having to go through your doctor.

How can I find a private therapist?

You may wish to consult a private physiotherapist, for instance if you feel you could benefit from further therapy after yours has ended, or if you want to supplement any NHS treatment. This is allowed under current guidelines. **Let your NHS therapist know you plan to do this**, both as a courtesy and to ensure you continue your treatment and goals.

Check that the private therapist has substantial **experience of stroke rehabilitation** and the appropriate qualifications. Look for the initials MCSP (Member of the Chartered Society of Physiotherapy) and SRP (State Registered Physiotherapist) after their name. Also ensure that you understand their fee structure, how many sessions are likely to be involved and whether you can be treated at home. For further information, see our resource sheet *R10, Private treatment*.

Tips for recovery

- Practise the exercises your therapist has set you.
- Keep to a routine of exercising at a regular time each day.
- Remember the more you do the better, so try to exercise every day or at least three times a week.
- Use a notebook to remind you what you need to do and record your progress.
- Remember to involve and move your affected side as much as possible.
- Be patient with yourself. You are aiming for long-term rather than immediate results.
- Many people worry that being active might cause another stroke. This is very unlikely but if you have any pain or are excessively breathless (getting a little out of breath is a good thing) then stop. If this does not subside after a short rest then seek medical attention.
- If you suffer from post-stroke fatigue, exercise can help but start slowly and build it up gradually. Choose a time of day to exercise when you are feeling relatively lively. Recognise that you may need to rest afterwards.
- Take steps to keep to a sensible weight.
- Join an exercise group or stroke club to meet and be encouraged by other people. Contact us for details of clubs in your area.

- Ask your physiotherapist about resuming sports and activities that you enjoy.
- Try new activities that will help you to maintain or improve your recovery.

Useful organisations

All organisations are UK wide unless otherwise stated

Stroke Association

Stroke Helpline: 0303 3033 100

Email: info@stroke.org.uk

Website: www.stroke.org.uk

Contact us for information about stroke, emotional support and details of local services and support groups.

Chartered Society of Physiotherapy

Tel: 020 7306 6666

Email: enquiries@csp.org.uk

Website: www.csp.org.uk

Has a register of therapists who are members of the Association of Chartered Physiotherapists interested in Neurology (ACPIN).

Physio First

Tel: 01604 684 960

Website: www.physiofirst.org.uk

Has an online database of qualified physiotherapists, which can be searched by location and specialism.

Disclaimer: The Stroke Association provides the details of other organisations for information only. Inclusion in this factsheet does not constitute a recommendation or endorsement.

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