

# Upper limb management after stroke



## What you need to know

- › **Stroke can affect your upper limb – your shoulder, elbow, wrist and hand.**
- › **Usually only one side of your body is affected.**
- › **Your treating team can work with you to develop a rehabilitation program.**
- › **Different ways of doing things, along with aids and equipment, can help with daily tasks.**

## How stroke can affect your upper limb

After a stroke, you may experience:

- › **Weakness.** Your arm may be paralysed completely, or your shoulder, elbow, wrist or hand may be weak. Paralysis on one side is called hemiplegia. Weakness on one side of the body is called hemiparesis.
- › **Planning or coordinating problems.** You may have difficulty planning arm movements. This is called apraxia. You may also have difficulty coordinating arm movements, which makes them feel slow or clumsy.
- › **Changes in the muscles.** You may have high tone which makes your muscles stiff and tight. This is called hypertonia or spasticity. Alternatively, your muscles may be floppy or loose. This is called low tone or hypotonia.

- › **Subluxation.** Changes in the muscle may cause your arm bone to sit slightly lower in your shoulder socket.
- › **Contracture.** If your muscles are tight or weak, they can become shorter. This can result in the joint becoming fixed in one position.
- › **Changes in sensation.** You might lose feeling, have pins and needles or have increased feeling (hypersensitivity).
- › **Swelling.** If your hand or arm does not move as well as it used to, fluid may build up (oedema).
- › **Pain.** Changes in the muscles, subluxation and contracture can cause pain. Changes in sensation can also cause pain.

## Treatment and recovery

Your physiotherapist and occupational therapist will test your arm strength, movement and feeling. They will work with you to develop a rehabilitation program based on your needs and goals.

Treatment will include practising movement and everyday tasks. Repetition is key to improvement, so you may do particular movements many times. You may also imagine you are doing an activity without actually doing it. This is called mental practice or rehearsal.

If you have mild to moderate **weakness**, you may be suitable constraint-induced movement therapy. This involves using a mitt or sling on your unaffected hand or arm to encourage you to use your affected limb. Increased use of your affected hand or arm will promote improvement.

Your therapist may also recommend video games to help you practise using your arm.

For weakness, you may also use an electromyography machine that records activity in your muscles. You may also use low-level electrical current to stimulate a weak muscle.

You may also place a mirror between your arms on a table. When you see your non-affected arm move in the mirror, it tricks your brain into thinking your affected arm is moving.

If you are having difficulty **planning movement**, you might talk about, rehearse and practise the steps that make up that movement. Your therapist may also do the movement with you. If your muscles have high tone, an injection of botulinum toxin A (botox) may help. Electrical stimulation may also be used.

If you have **subluxation or shoulder pain**, you may need electrical stimulation, a sling, wheelchair attachments or strapping. You will also need to learn the best ways to move and protect your arm. If the pain does not improve, you may need a specialist pain management doctor or clinic.



The Stroke Foundation partners with the community to prevent, treat and beat stroke. We do this through raising awareness, facilitating research and supporting stroke survivors.

Contact us

 **StrokeLine 1800 STROKE (1800 787 653)**

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If you have had **changes in sensation**, you might retrain your senses by feeling different materials, objects and textures to re-learn what they feel like.

If you have **swelling**, you may need exercises, electrical stimulation, massage or pressure garments. Supporting your arm in a raised position when resting can also help.

While you are likely to see the most improvement in the first six months, you may make improvements for many years. Keep doing your exercises and use your arm as much as possible. Join an exercise group or ask your family and friends to help you practise doing things and keep active.

You may need to use equipment or find different ways to do everyday tasks. You may also need to protect your arm from injury. Your therapists will provide advice on the right strategies and equipment for you.

## More help

The health professionals at **StrokeLine** provide information, advice, support and referral. StrokeLine's practical and confidential advice will help you manage your health better and live well.

Call **1800 STROKE (1800 787 653)**

Email [strokeline@strokefoundation.org.au](mailto:strokeline@strokefoundation.org.au)

Join Australia's online stroke community with videos, fact sheets, resources and support for stroke survivors, their family and friends. [enableme.org.au](http://enableme.org.au)

To find a physiotherapist:  
Australian Physiotherapy Association  
03 9092 0888  
[www.physiotherapy.asn.au](http://www.physiotherapy.asn.au)

To find an occupational therapist:  
Occupational Therapy Australia  
[www.otaus.com.au](http://www.otaus.com.au)