What you need to know
› High tone or activity in your muscles makes them feel stiff and tight. This is called spasticity.
› Your treating team can work with you to develop a treatment plan.
› Muscle spasticity will tend to get worse the less you move. It is important to move as much as possible.

How stroke causes spasticity
Muscles have a certain amount of tone, or activity. The tone of muscles is controlled by signals from the brain. If the part of your brain that sends these control signals is damaged by a stroke, then the muscle may become too active. This is called spasticity.

About 30 percent of stroke survivors will experience some form of muscle spasticity. Some people experience spasticity immediately after their stroke, but it can start at any time.

Effects of muscle spasticity
Muscle spasticity can cause:
› Stiffness in the fingers, arms or legs
› Muscle spasms
› Overactive reflexes
› Uncontrollable rhythmic contractions and relaxations in the muscles that lead to jerking. This is called clonus.
› Changes in posture
› Pain.

Stroke survivors experiencing muscle spasticity may have:
› A clenched fist
› A bent elbow and arm pressed against their chest
› A stiff knee
› A pointed foot.

Spasticity in your leg muscles can make it difficult to walk. It can affect your balance and increase your risk of falling. Muscle spasticity can also increase tiredness or fatigue because it is harder to move and you use more energy.

Spasticity can result in contracture, which is when the muscles get shorter due to being kept too tight. This can result in a joint becoming fixed in one position.

For a complete list of fact sheets visit strokefoundation.org.au
**Treatment and recovery**

If you experience muscle spasticity at any time after your stroke, it’s important to get advice from your doctor or allied health professional. They will discuss the best treatment options with you.

**Physiotherapy and occupational therapy**

For many people, physiotherapy and occupational therapy are the most effective treatments. What therapy is best for you depends on what area of your body is affected and how severe it is. Your therapists will recommend exercises and other strategies to improve the quality of movement and the control of your muscles.

Neuroplasticity is the brain’s ability to change so unaffected parts of the brain can take over the job of affected areas. Repeated and challenging exercises related to everyday tasks can promote this change, reducing spasticity and restoring the brain’s control over muscles.

Your therapists may also recommend therapies such as casting, taping and electrical stimulation. Electrical stimulation is often used when you cannot move the affected area very much or even at all.

Therapy can also help reduce the impact of muscle spasticity, and address any other problems that might come from it. Different ways of doing things, along with aids and equipment, can help with daily tasks. You may also need to protect the affected part of your body from injury. Your therapists can provide advice on this.

**Medications**

For severe muscle spasticity, your doctor may prescribe medication. The most common medication is Botulinum toxin A, which is injected into the muscles that are too active. These injections are effective for approximately three months, and they should always be combined with physiotherapy or occupational therapy. They give you a window of opportunity to work with your therapists to strengthen muscles and to improve your range of movement.

Other medication may include muscle relaxant tablets. These work on muscles throughout your whole body, not just in one location.

Your general practitioner, neurologist or rehabilitation specialist will be able to provide advice. Your general practitioner can refer you to a spasticity clinic if needed. Spasticity clinics include rehabilitation physicians, physiotherapists and occupational therapists. They can provide comprehensive assessment and advise you on managing spasticity over the long term.

**Keep moving**

Muscle spasticity will tend to get worse the less you move. This is especially true if the muscles become weaker. Moving less can also contribute to developing contracture. It is important to move as much as possible. Join an exercise group or ask your family and friends to help you practise doing things and to move more.

**Getting help**

StrokeLine’s health professionals provide information, advice, support and referral.

Call 1800 STROKE (1800 787 653).
Email strokeline@strokefoundation.org.au

Join EnableMe – Australia’s largest stroke community for information and support. enableme.org.au

To find a neurological physiotherapist: Australian Physiotherapy Association
choose.physio/findaphysio

To find an occupational therapist: Occupational Therapy Australia
otaus.com.au

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)
- strokefoundation.org.au
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