



American Stroke Association®
A division of the American Heart Association.

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Spasticity

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PRONOUNCED:

SPAS·TIC·I·TY



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What is Spasticity?

- After a stroke, signals from the brain that allow muscles to relax can be blocked, causing the muscles on the stroke side to tighten and spasm.
- Spasticity can range from mild stiffness to severe painful spasms.
- It most commonly affects movement of the elbow, wrist and ankle.
- It may lead to fixed joints (contracture), in which muscles shrink and shorten, and joints can be stuck in one position and hard to move.





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Symptoms of Spasticity

- Often includes painful, stiff, rigid muscles.
- Involuntary contractions or muscle spasms, such as a charley horse that won't go away.
- Spasms can also produce:
 - Arm in a folded position pressed against the chest
 - Tight fist
 - Pointed foot
 - Stiffness in arms, fingers or legs
 - Bent elbow
 - Stiff knee
 - Decreased functional abilities and delayed motor development
 - Overactive reflexes





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How Common is Spasticity?

- About 25% to 43% of survivors will have spasticity in the first year after their stroke.
- It's more common when the stroke is caused by a bleed (hemorrhagic stroke).
- Onset of spasticity can vary greatly and can set in weeks, months or even a year after a stroke.





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Complications Caused by Spasticity

- Complications caused by spasticity:
 - Difficulty with care and hygiene
 - Skin irritation due to spasms
 - Skin breakdown for those who are immobile or experience post-stroke incontinence
 - Atypical posture
 - Permanent contraction of the muscles and tendons
 - Bone and joint deformities
 - Negatively impacts your ability to perform activities of daily living, to socialize and enjoy hobbies, leading to social isolation and depression





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Diagnosis

A rehabilitation physician (sometimes called a physiatrist) or a neurologist are specialists who treat stroke, including spasticity. Your primary care professional may also be able to provide you with treatment or refer you to someone who can.

Assessment and diagnosis are critical in developing a treatment plan, and it's vital to evaluate progress and outcomes. It's important for you and your caregiver to have an open dialogue with your health care professional.





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Spasticity Treatment

While there's no cure, a combination of therapies and medications can lessen the symptoms of spasticity:

- Targeted injections of botulinum toxin into the most affected muscles, may reduce tone and tightness of those muscles.
- Oral medications that promote muscle relaxation, be aware of any side effects and report those to your health care professionals.
- Neuromuscular electrical stimulation or vibrations can be applied to spasmatic muscles.
- Intrathecal baclofen therapy may be used to deliver continuous medication to ease severe muscle contractions and spasms.
- Range-of-motion exercises and stretching of tighter muscles.
- Surgery on affected muscles, tendons or joints to block pain and restore movement.
- A combination of physical therapy and medication can be quite effective.





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Coping Techniques

Be patient with yourself and the physical impact and changes you may have developed after your stroke.



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Coping Techniques

Ask about home modifications and assistive devices or aids to ensure your safety and reduce your risk of falls.

- Ramps
- Grab bars
- Plastic adhesive strips on bottom of the bathtub
- Braces, canes, walkers and wheelchairs — follow the recommendation of your healthcare professionals
- Raised toilet seats
- Shower or tub bench



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Coping Techniques

Schedule breaks to stretch throughout the day.



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Coping Techniques

Be aware of how your medications affect you and discuss negative results with your health care professional.



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Talking to Your Health Care Professional

One of the most important things you can do when you experience spasticity is to talk with your health care professional.

Work with an occupational and physical therapist who has expertise in spasticity management.

Make it clear that these episodes only started occurring after your stroke.





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Group Discussion



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Why does spasticity develop?





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What are treatment options for spasticity?





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Why should stretching be a part of spasticity treatment?





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Who can you talk to when you experience symptoms of spasticity?





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Who should be on your rehabilitation team to help manage spasticity symptoms?





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For more resources on spasticity
and life after stroke, visit
stroke.org/spasticity

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