

Spasticity

Spasticity is something that can happen after certain brain or spinal cord injuries. It often feels like muscles are tight, stiff, or moving on their own.

To understand why this happens, it helps to think about how the body normally works. Your brain and spinal cord are constantly communicating. The brain sends messages to your muscles to tell them when to move and when to relax, keeping everything smooth and controlled. After an injury, that communication is disrupted, leading to spasticity.

You may notice:

- Muscles staying tight or stiff
- Sudden jerking or spasms
- Involuntary movements

Spasticity can also be triggered or made worse by everyday things, such as:

- A full bladder or bowel
- Constipation
- Tight clothing
- Skin irritation or pressure sores
- Sudden movement or stretching

Understanding what causes spasticity and what triggers it can make it easier to manage and respond to changes.

Phases of Spasticity Development

Spasticity doesn't usually happen all at once – it tends to develop over time after a brain or spinal cord injury. While people may experience it differently, it's often described in phases that show how the body changes as it heals and adapts.

1. Flaccid Phase (Early Stage)

Right after the injury, the body often goes into a “shut down” phase.

- Muscles are loose or floppy

- Little to no muscle tone
- Reflexes are absent or very weak
- In SCI, this phase is often called *spinal shock*

At this stage, spasticity is not present yet.

2. Return of Reflexes

As the body begins to recover, reflexes start to come back.

- Small reflex movements begin to appear
- Muscles may start to feel slightly tighter
- The nervous system is becoming more active again

This is usually the transition phase before spasticity develops.

3. Developing Spasticity

With less control from the brain, the spinal cord becomes more sensitive and overactive.

- Muscle tone increases
- Muscles may tighten more easily
- Early spasms or involuntary movements may begin

Triggers (like touch or movement) may start to cause noticeable reactions.

4. Established Spasticity

Spasticity becomes more consistent and noticeable in daily life.

- Muscles are stiff or tight most of the time
- More frequent or stronger spasms
- The body may strongly react to triggers (like bladder fullness or positioning)

At this stage, spasticity can either:

- Be helpful (for example, helping maintain muscle tone or assist with transfers), or
- Be problematic (causing pain or limiting movement)

Managing Spasticity

Management of spasticity typically involves therapy-based interventions along with medical treatment when needed. Your therapy team will work with you to improve movement, manage spasticity, and optimize positioning. In many cases, spasticity can also be used in a functional way to help with movement, stability, or functional tasks. In some cases, medications or other treatments may also be recommended by your healthcare provider.

Because spasticity can change as the body heals, it is important to report any new or worsening symptoms to your healthcare provider. They can help identify causes, adjust your plan of care, and support you in managing symptoms to improve comfort and function.