

# Spasticity Patient and Family Education Handout



## What is Spasticity?

Spasticity is caused by damage to nerves in the brain or spinal cord. Spasticity is a condition that makes muscles too tight or stiff. It happens when the brain and spinal cord have trouble sending the right signals to the muscles. This can make movement harder and sometimes painful. Spasticity can affect muscles in both the arms and legs.

## Body areas that can be affected:

- **Arms:** Shoulders, elbows, forearms, wrists and fingers
- **Legs:** Hips, knees, ankles and feet

## Medical conditions that cause spasticity include:

- Brain or spinal cord injuries
- Brain tumor
- Stroke
- Cerebral palsy
- Multiple sclerosis
- Other nervous system disorders

## Symptoms of Spasticity

Symptoms can be mild or severe and may include:

- Muscle stiffness or tightness
- Muscle spasms (sudden movements you can't control)
- Trouble walking, moving, or speaking
- Pain and discomfort moving limbs
- Joint, muscle and skin problems over time
- Difficulty with caregiving, and hygiene of the hands, armpits and groin area

## Treatment for Spasticity

The goal of treatment is to reduce muscle stiffness, improve movement and prevent long-term problems. Treatments can include therapy, medicine or surgery.

## Supportive Therapies

Physical and occupational therapy can help improve movement and make daily activities easier.

- **Physical therapy:** Stretching and strengthening exercises to improve movement.
- **Occupational therapy:** Helps with daily activities like dressing and writing.
- **Braces or casting:** Can help control or improve position of a body area affected by muscle stiffness and spasms.
- **Home-based exercises** and activities.

## Common Oral (by mouth or feeding tube) Medications

Some medications help relax muscles and reduce stiffness. They can be taken as a pill or given as an injection.

## Common Oral (by mouth or feeding tube) Medications

- Baclofen
- Diazepam
- Tizanidine
- Dantrolene

*Note: Some of these medicines are only approved for adults or children over 5 years old.*

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## Injection Treatments:

- Botulinum toxin injections (help relax specific muscles)
- Phenol or alcohol nerve blocks (help reduce tightness in certain muscles)

## Surgical Options

In some cases, doctors may recommend surgery.

- **Intrathecal Baclofen Pump Therapy:** A small pump placed in the body delivers medicine directly to the nervous system.
- **Orthopedic surgeries** to improve joint motion.
- **Selective Dorsal Rhizotomy:** A surgery typically for children with spasticity that cuts certain nerves to reduce spasticity in the legs. This is usually for severe cases and is permanent.

**Other Non-Pharmacologic Interventions:** Like electric stimulation therapies, cryotherapy, cryoneurolysis, thermotherapy: heat including ultra-sound, dry needling, and acupuncture including electro-acupuncture. Your provider may discuss other options with you as well.

## Your Care Team

Many healthcare providers may be involved in treating spasticity, including:

- Primary care doctors
- PM&R Physicians (Physiatrists): Experts in muscle function who help manage spasticity and coordinate care.
- Physical and occupational therapists
- Speech therapists
- Neurologists
- Surgeons
- Orthotists

You can find a PM&R Physician (physiatrist) through the **American Academy of Physical Medicine and Rehabilitation (AAPM&R)** "[Find a PM&R Physician](#)" tool.

## Questions to Ask Your Doctor

- What treatments are best for me?
- How will they help my symptoms?
- Are there side effects?
- Who should be part of my care team?
- Will my spasticity improve over time?

Spasticity can be managed with the right care plan. Talk to your healthcare team to find the best treatment for you!

## Where can patients find additional information?

Please visit [PM&R KnowledgeNOW](#) for more information.

This patient information was adapted from the American Academy of Physical Medicine (AAPM&R) guidance statement published in the *PM&R Journal* on May 21, 2024, "[AAPM&R Consensus Guidance on Spasticity Assessment and Management](#)." Patients are encouraged to share the information about the guidance with their doctors, care team and family members.

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