

## Spasticity

**Condition:** Spasticity refers to muscle tightness, stiffness, and cramping that can't be controlled. Spastic muscles may also cause jerky movements, or spasms.

**Background:** Spasticity affects muscles but is caused by damage to the nerves that control muscles. This nerve damage can result from stroke, multiple sclerosis (MS), spinal cord injury, or other types of brain damage.

**Risk Factors:** Some conditions, such as a traumatic spinal cord injury, are more likely to cause spasticity than other types, like stroke.

**History and Symptoms:** After a spinal or brain injury, at first the muscles may be limp and weak, but then tighten up over time. When the tightness does not go away it can cause other problems with movement, posture, balance, and doing everyday tasks. Spasticity may also cause pain or sleep problems. Spasticity can affect your whole body or just a few parts.

**Physical Exam:** Your physician will test how well you can move your arms and legs. They will also test how tight your muscles are and whether certain movements make your muscles tighten up more.

**Diagnostic Process:** There are no blood tests for spasticity. X-rays or other types of imaging may help look for broken bones or blood clots in your arms or legs that can make spasticity worse. A test called EMG (electromyography) can show if the problem is in the nerves or the muscles.

**Rehab Management:** Many people may be involved in treating your spasticity. Physical and occupational therapy (PT and OT) can teach you how to stretch your muscles which can relieve stiffness from spasticity and keep the muscles as flexible as possible. They may also use treatments such as braces, splints, heat, ice, ultrasound or electrical stimulation to help with spasticity. Speech therapy may be used for problems with speech or swallowing that may happen because of muscle tightness. A physical medicine and rehabilitation (PM&R) physician can help coordinate the treatment of your spasticity. For more generalized spasticity they may prescribe oral medications, such as baclofen, tizanidine or dantrolene. For spasticity primarily affecting one or two limbs, the PM&R physician may perform botulinum toxin or phenol injections. For generalized spasticity that has not responded to oral medications or if there are side effects to oral meds, intrathecal baclofen pumps offer an excellent treatment option.

**Other Resources for Patients and Families:** Family members can help patients with stretching and other exercises to increase flexibility. If patients need help moving about or getting up and down, family members can learn the best ways to help.

## Frequently Asked Questions

### What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit [www.aapmr.org/aboutpmr](http://www.aapmr.org/aboutpmr).

### What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

### Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

### How do I find a PM&R physician near me?

Visit [www.aapmr.org/findapmrphysician](http://www.aapmr.org/findapmrphysician) or contact your primary care physician for a referral.

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