

FIVE THINGS TO KNOW ABOUT ...

Spasticity

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Spasticity is common in upper motor neuron disorders¹

After a stroke, almost 5% of patients are affected by spasticity within 10 days of the event; about 10% of patients are affected after 6 months.² About one-third of patients with multiple sclerosis have spasticity that limits their ability to perform daily activities.³ Almost 80% of children with cerebral palsy have spasticity.⁴

Although not all spasticity is problematic, symptoms can be disabling

Resultant clonus can prevent the use of affected limbs, cause pain or falls and impair gait. In addition, bladder spasticity causes incontinence.^{1,3} Untreated, spasticity can cause contractures, which can be treated with either orthoses or surgery.

Spasticity is a velocity-dependent increase in tone

Spasticity is evoked with quick passive movement of the affected limb. A “spastic catch” is felt and can be overcome with continued force. The effect is diminished at slower speeds.² The degree of spasticity is quantified by using the Ashworth scale (Appendices 1 and 2, www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140405/-/DC1). Hyperreflexia is also present in the affected limb.

Spasticity can be treated with focal or generalized therapy

Focal treatment includes stretching, bracing and injection of botulinum toxin.⁵ Generalized treatment includes proper seating and positioning, medications administered orally or intrathecal injection of baclofen.⁶ Clinical trials have shown no consistent improvement in objective measures of spasticity among patients with spinal cord injury, cerebral palsy or stroke who received baclofen, tizanidine or benzodiazepines orally.⁷ Evidence supporting the use of such agents for patients with multiple sclerosis is mixed.⁸

If spasticity worsens, the cause of the change should be sought

Neurologic lesions such as a syrinx or disc compression should be considered in patients with worsening symptoms. In addition, a systematic review suggested that pregnancy, infection, heterotopic ossification and sources of pain such as pressure sores, fractures or ingrown toenails can cause spasticity to worsen.⁹

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See the following videos online:
Appendix 2: Spasticity
www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.140405/-/DC1