

Pathways To Comfort: Dealing With Pain And Brain Injury A Companion Guide To The Road To Rehabilitation Series

Step 7: Spasticity Management

What is spasticity?

Spasticity is a condition that causes stiff, tight muscles, especially in the arms and legs. It makes movements stiff, jerky or uncontrollable. Spasticity may also include spasms – sudden, involuntary muscle contractions similar to the muscle cramps athletes experience. Spasticity varies from mild to severe, and is different for every individual. Its impact on each individual function also varies.

What causes spasticity?

Spasticity often occurs in people with brain injury, cerebral palsy, stroke, multiple sclerosis or spinal cord injury. It results from a disorder of or injury to the central nervous system. The central nervous system – made up of the brain and spinal cord – works with a network of nerves connected to muscles. Using the spinal cord as a pathway, complex messages continuously move back and forth between the muscles and the brain. Normally, muscle groups in the nervous system work together so when one is flexed, its opposing muscle is relaxed. After a brain injury, the brain may not be able to send or receive these special messages. As a result, the system balance is disturbed so muscles needlessly stay tight or contracted. This condition is known as spasticity. Muscles may not work at the appropriate time during movement and individuals may not be able to contract a particular muscle without others contracting out of sequence.

When is spasticity a problem?

Spasticity becomes a problem if it gets in the way of an individual's ability to go about the activities of daily living, such as eating, bathing and dressing. In individuals who cannot care for themselves, spasticity can cause pain and make them more difficult to care for. It can lead to medical complications as well.

Why should spasticity be treated?

Spasticity is often painful. It can make simple activities of daily living time consuming, difficult or impossible for an individual to do alone, placing great demands on a caregiver and the individual. Spasticity can increase medical complications such as pressure sores, pneumonia and painful deformities (contractures). An individual's ability to socialize and enjoy hobbies and recreational activities can be limited. Treating spasticity can decrease health care costs, increase functional ability, and lessen care required. Overall quality of life for the individual and the family is greatly improved because of treatment.

What is the goal of spasticity management?

Because it is not always possible to eliminate spasticity, the goal of treatment is to reduce spasticity. Spasticity is different in each individual affected, and treatment goals depend on the individual. Reduced spasticity may allow some individuals to walk more smoothly, some to sit more comfortably or others to be cared for more easily. These are

just examples, and each individual may experience different rewards from the spasticity treatment.

Why is goal-setting important?

There are a number of treatment options available for spasticity. Some treatments are more appropriate for certain individuals with spasticity than others. It is important for the individual, family and health care team to agree upon realistic treatment goals so that the health care team can recommend the treatment most likely to achieve those goals. This process can help avoid the disappointment that may occur if the treatments do not produce the results the individual and/or family had hoped for. Setting goals also allows the team to plan appropriate treatments/therapies and develop a treatment plan.

What treatment is best for spasticity management?

No one treatment option is best for all individuals. All treatments have the potential for side effects that should be weighed against their benefits. The most effective treatment plan aims to strike a balance between the positive and negative effects of the treatment. The best treatment option is the one most likely to achieve the goals agreed upon by the individual, family and health care team.

What special considerations in spasticity management should be made for individuals with brain injury?

The health care team should include professionals who have experience working with individuals with brain injury. These health care professionals can then educate the individual, family and other team members on how the specific effects of the brain injury are likely to impact the individual's spasticity management plan. The health care team should carefully assess the cognitive, behavioral and emotional needs of the individual and plan the treatment process. With these issues in mind, it is important to remember that all these treatments can be used in different combinations.

How can family members help in managing spasticity in individuals with brain injury?

Family members can learn as much as possible about spasticity and treatment options. The more they know, the more effectively they will be able to work with the health care team to manage their family member's spasticity.

Where can individuals with brain injury and spasticity seek help?

Individuals with spasticity and their family members can call local hospitals and ask if they have a spasticity management program appropriate for those with brain injury, or if they could provide the name of one. The Brain Injury Association, Inc. can be contacted and questioned about local brain injury programs that may be able to give more information about spasticity management.

About the Editors

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