Spasm

Most people who have a spinal cord injury will have 'spasms'; these are periodic uncontrolled movements and should not be confused with normal active movement.

Summary

- The Brain
  Can be compared to a computer but its functions are many more times complex than any computer invented by man. It takes all the information from our skin, joints, internal organs (heart, bowel, bladder etc) and analyses it and sends messages to our muscles and internal organs.

- Spinal Cord
  This is attached to the brain at the base of the skull and goes all the way down to the small of the back (L1 or L2). These acts as the middleman conveying information from our skin, joints and internal organs. It can also act independently from the brain.

- Peripheral (End) Nerves
  These come out from the spinal cord all along its length and simply carry messages from the skin and internal organs via the spinal cord and messages back to the muscles.

How it works

A man stands on something sharp, the 'pain' message will travel up the nerve into the spinal cord. When it reaches the cord it will do two things:

- Trigger the cord to send a message to tell the muscles to pull his foot away from the sharp object.
- At the same time, a message will also be sent up the cord to be analysed in the rain, if there is no danger the brain will send the message down the cord to tell the muscle to relax and let the man put his foot on the ground.

Spinal Injury

When the spinal cord is damaged the message cannot travel up to the brain past the damage in the cord. However, the cord below the damaged area will still send a message to the muscle to tell it to pull the foot up, because the brain cannot get a message to the muscles to tell the foot to relax, the muscle will go on 'spasming' until it tires and stops. Unfortunately, the spinal cord cannot tell the difference between a pain message and a light touch message so it will always react in the same way for all messages.

Is Spasm a Good Thing?

Yes-in moderation. If a person has spasms, the blood supply to the skin is better and the muscles keep some of their bulk. Spasm will also tell the client a lot about themselves below the level of injury as they begin to understand what different types of spasm mean. If it is a high lesion, then spasm can be used to help turn or straighten joints to aid in dressing. Many people can trigger a spasm to happen. Many people find spasm distressing especially at first, as it can throw them off balance especially when doing transfers or it can limit their ability to do things for themselves.

If spasms are worse, what can be causing them?

- Bowel/bladder may need to be emptied.
- Bladder Infection
- Wearing shoes that are a bit too tight.
- Clothing too tight? (Check jeans and underpants)
- Perhaps there is a red mark, bruise or sore on a pressure area.
- Poor posture in the wheelchair can cause spasm.
- Contractures (hips, knees or elbows that will not straighten properly) will make spasm worse.
- Any emotional upset.

How can spasm be decreased?

- Standing in callipers or a standing frame for about 1 hour each day will stretch the muscles and may decrease spasms.
- Sleeping prone (on abdomen) at night will help to reduce spasm as well as prevent contractures in hips and knee joints.
- Activity will reduce spasm.
- Hydrotherapy or swimming is often useful in reducing spasm, but may have the opposite effect.
- Correct their sitting posture.
- Drugs are sometimes used to reduce severe spasm, these can be prescribed by GP or Doctor in Spinal Centre