

(SCIRE logo with words “Spasticity and SCI,” “3 Common Triggers,” and “Part 2/7” appear on screen.)

(Medium close-up of Dr. Patricia Mills, Principal Investigator from the Faculty of Medicine in the University of British Columbia.)

Dr. Patricia Mills: Usually, spasticity tends to get worse over the first year of injury.

(Cut to physiotherapist examining the leg of a man suffering from spasticity.)

After one year of injury, it tends to stay stable.

There are things that will make it worse or better.

It’s important to try to differentiate whether or not the spasticity is evolving due to its natural history or an underlying medical condition.

(Graphic demonstrating the natural history of spasticity with a time vs. spasticity line graph. Right after the injury, spasticity is at zero: Spinal shock = no reflexes, no spasticity. At around 6 or more weeks, spasticity slowly increases (Words “natural development” appear) before plateauing at the one-year point. After one year, spasticity suddenly increases (words “Underlying medical condition?” appear).)

Typically, with the natural history, spasticity will increase slowly over time; there won’t be a sudden change.

If there is a sudden change in spasticity over a short period of time, it really makes you think about why the spasticity is getting worse.

(Slide listing “Common triggers for spasticity”: “Bladder,” “Bowel,” and “Skin.” In red, the words “most frequent” appear beside “Bladder.”)

In spinal cord injury, there are some very common triggers for spasticity, but the bladder is most frequent.

(Animation demonstrating the broken connection between the bladder/sphincters and the central nervous system.)

The reason for that is because individuals with SCI develop a neurogenic bladder. Essentially, this means the bladder and the sphincter are no longer under control of the centres above the spinal cord.

(Return to medium close-up of Dr. Patricia Mills.)

Checking the catheter is the easiest thing to do, and often, that is the problem.

Checking for a urinary tract infection-that is a very frequent problem of increasing spasticity within a short period of time.

And if those things aren't positive, looking for things like stones with appropriate imaging would be a very reasonable next step as well.

The same thing happens with the bowel-you develop a neurogenic bowel, a bowel that is no longer under control of the central nervous system as it was before.

Instead, you rely on its intrinsic reflexes.

(Graphic listing the words "Constipation," "Hemorrhoids," and "Fecal Impaction," along with the words "can trigger or aggravate spasticity" on the side.)

You tend to get constipation, hemorrhoids, and fecal impaction, and those things can certainly trigger or aggravate spasticity as well.

(Graphic listing problems with the skin: "Pressure Ulcers" and "Ingrown Toenail." Under the words "Other Causes:" are the words "Undetected Fracture". On the side are the words "can trigger spasticity.")

Because individuals with spinal cord injury lack the mobility and sensations that they used to have, as well as suffer from other factors that impair wound healing, they tend to have problems with skin breakdowns such as pressure ulcers, an ingrown toenail, and an undetected fracture.

Those things can trigger spasticity.

(Return to medium close-up of Dr. Patricia Mills.)

You may treat the spasms in the meantime while you're looking for the triggers, but in the end, what is really going to treat the spasticity is finding out why it happens in the first place.

(Words "To learn more visit scireproject.com" and "follow us @SCIREProject" appear.)

(Fades into next screen with bolded words "Thank you to" followed by the words "Principal Investigator Patricia Mills," and "Participants: Lance Blanco, Jami Bennett, Matthew Querée, Shannon Sproule and the rest of the SCIRE Team." Below: logos of the Rick Hansen Institute, University of British Columbia, icord, and Ontario Neurotrauma Foundation.)

(Words “Created by Merilin Paart at the Knowledge Mobilization Studio at the Centre for Hip Healthy and Mobility” and Knowledge Mobilization Studio logo appear on screen before dipping to black.)