



**National
Multiple Sclerosis
Society**

**MS Learn Online
Feature Presentation
Managing Your Symptoms: Spasticity
Featuring Dr. Michael Kaufman**

Tracey: Hi I'm Tracey Kimball

Tom: And I'm Tom Kimball, welcome to MS Learn Online. We are very pleased to have neurologist Dr. Michael Kaufman speaking with our medical correspondent, Rick Somers, on spasticity.

Tracey: It's a very common symptom for those of us with MS. Personally, since I was diagnosed it's been a constant problem in my left leg.

Tom: But as Dr. Kaufman explains, someone else may have a different story about their spasticity.

>> **Michael Kaufman:** Well, the reason you get different stories is the spasticity is unregulated and often counterproductive increase in tone, and it can have different manifestations. It can be sort of a constant increase in tone or a sudden increase in tone. It has a number of different manifestations.

>> **Rick Somers:** What is spasticity and what effects does it have on MS patients?

>> **Michael Kaufman:** Well, spasticity is an unproductive and involuntary increase in the muscle tone, the amount of tightness or resting energy that's in a muscle so that spasticity sometimes prevents us from making smooth movements. In its most subtle form it can interfere with highly coordinated movements. So, we don't think of things like running as highly coordinated, but it can just be enough to sort of trip our running off so that we're not steady.

It primarily affects the legs. It can move and affect the arms. It interferes with little corrective movements. So, if you lose your balance, instead of that leg just shooting out

there in a nice, smooth fashion, it can kind of jerk out, maybe not go quite far enough, maybe go too far. And so it can interfere with what we take for granted every day.

As things get worse and people have more spasticity, it can make it difficult to relax, to take care of just normal activities of daily living, of hygiene. It can interfere with our sleep because our muscles don't relax, they sometimes jerk. If it gets really bad it can affect our speech, it can affect our arms, how we use our hands. And it's one of the more disabling symptoms of multiple sclerosis. Fortunately, it's one that we have some treatments for.

>>**Rick Somers:** I notice at times, when I'm stretched out watching TV and I have my feet up on the coffee table that that's when it seems -- my legs are in a certain position and that's when it seems to hit. Or when I get out of bed in the middle of the night, if I have to go use the john. I get out of bed and my legs take a couple of minutes to -- I feel like I'm an airplane landing, and that bounce and then the nose gear comes down and we're okay.

>> **Michael Kaufman:** Well, our muscle tone is -- there is sort of a resting tone in our muscles that we have to inhibit when we go to do coordinated acts. And what you're telling me is that lack of being able to involuntarily inhibit those muscles, and it's worse after we've rested for a while.

It is peculiar and it seems to be worse in some positions. Some people have more spasticity just in the middle of the night. But almost everyone's spasticity is worse after they've rested. That's why it's a good idea sometimes before you get going is to stretch and to do some things to loosen those muscles up, that even people without multiple sclerosis experience. But people with multiple sclerosis experience them to a greater extent.

>>**Rick Somers:** I had an acupuncturist explain to me that some of the fatigue I feel, in my legs especially, is that tightening, that spasticity, and then that release and that constant clenching and letting to.

>> **Michael Kaufman:** Yes. It takes more work for your muscles to relax. And if you're having a muscle that's tight, that's opposing the muscle that you're trying to move, then you have to put more energy in the muscle you're trying to move and more force, and it can be tiring.

>>**Rick Somers:** Is a massage good?

>> **Michael Kaufman:** I think a massage is wonderful, and I think it is good. It's not often covered by insurance companies and unfortunately not available to everybody. But it's a way to relax your muscles.

>>**Rick Somers:** When I was diagnosed, I was very athletic. I was a runner, I used to stretch, and I often wonder now, I don't run anymore, but if that helps with the spasticity?

>> **Michael Kaufman:** I think it does. Spasticity in its most subtle forms -- it's interesting you talked about running, because one of its most subtle forms it sort of takes away coordinated movements, such as running. And people can walk normally, but if they're just a little bit spastic, they can't run. Often the legs are more affected. When it gets more severe it can affect arms, it can affect bladder, it can affect speech. Sometimes it can keep people awake at night because it doesn't respect sleep, and you can have a sudden jerk of your leg that can keep you, sometimes your spouse awake.

>>**Rick Somers:** You read my mind there. Yes.

>> **Michael Kaufman:** But, yes, exercise is one way, just as you know, as any of us over the age --

>>**Rick Somers:** That age.

>> **Michael Kaufman:** -- that I am, when we've got to do something athletic, we're tight at first, we're not moving smoothly, and just getting into that exercise, stretching those limbs will make you looser. And sometimes exercise is good for patients with spasticity. It loosens them up for maybe an hour or two afterwards.

>>**Rick Somers:** A little bit of irony, because when I used to run, I used to love running in the heat, because I felt looser there. And, of course, we know the impact that heat has on MS patients. Talk to me a little bit about some of the medications that you may favor as far as dealing with spasticity.

>> **Michael Kaufman:** Well, there are a number. I think the oldest one is Baclofen, and it's usually used throughout the day, sometimes three to four times a day in doses that may --. The recommended maximum dose is 80 mg spread over three or four doses per day. Sometimes we use higher doses than that. You have to be a little bit careful; there are side effects. It makes people sleepy. You can't withdraw it too quickly because it makes the nervous system hyperexcitable.

There is another drug, the generic is tizanidine, and that's a newer addition to the armamentarium. It is somewhat similar to Baclofen, maybe a little bit more specific in its targets in the spinal cord. And that also, unfortunately, can make people sleepy.

A lot of the drugs that you use for spasticity are used to kind of inhibit parts of the central nervous system that are exciting the motor functions, so they sometimes have the untoward effect of inhibiting other areas.

If those medicines make you too sleepy, there's a drug called dantrium, which effects the muscles primarily. It doesn't cause as much sleepiness, but it does have other side effects particularly in the liver, and it can cause some weakness because it inhibits the muscles.

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We've been using Baclofen pump recently for spasticity.

>>**Rick Somers:** That's surgically implanted?

>> **Michael Kaufman:** That's surgically implanted and allows you to use smaller doses of Baclofen.

>>**Rick Somers:** More frequently?

>> **Michael Kaufman:** Well, it's usually constant infusion, although it can be pulsed, too. But it allows you to use less of the medication and have consequently fewer side effects.

>>**Rick Somers:** We were talking about running before and the importance of movement. And that, of course, is the message of the MS Society is to "Join the Movement" and "Let's Keep Moving." Along those lines, I after all these years am not as active I used to be, but am now in rehab, in physical therapy. Talk to me about that.

>> **Michael Kaufman:** Well, rehab, there are really two things that rehab does. One is it sort of has the effect of letting you compensate. And the brain is somewhat plastic so that you can learn to compensate a little bit through exercises and balance training. So, that's one area of help.

The other area is just teaching people to stretch, keeping the joints loose, and you can even do some strength-building. It's a little harder if you have multiple sclerosis than if you don't, but you still can enlarge those muscle fibers and add to your strength. So, it's not as quick, you don't get as quick results, but you still get results from exercises.

>>**Rick Somers:** Are there things, perhaps somebody is homebound and can't get to physical therapy so easily, and they're watching this on their PC, on their laptop. Are there things they can do at home?

>> **Michael Kaufman:** Sure. I'm a great believer in physical therapists and occupational therapists teaching people to do their own therapy. If they're unable to do their own therapy, which is kind of rare, getting caregivers to give their therapy.

But there are little things. For instance, in stretching a limb, sometimes if the hand function is good but the upper function isn't so strong, people can be taught to wall walk with their fingers, and can stretch that limb just using their fingers to go up the wall.

>>**Rick Somers:** How about people who are really dealing with a severe case of spasticity?

>> **Michael Kaufman:** Well, there are other things, like botulinum injections, Botox injections into muscles can loosen up muscles. Caregivers can help people stretch.

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We have a nice program that we're fortunate in our center is that we have purchased some standing equipment, and we loan it out to people at three months at a time. We're gathering some data at this point to see if it helps. But we believe from what people have told us anecdotally that if we can -- these are people that can't stand, can't walk. They go into a frame and move their arms and it moves their legs for them. And they tell us they have a better quality of life and they have less spasticity in their legs just by doing that.

>>**Rick Somers:** We were talking about stretching before. You know, stretching is probably very underrated, and let's talk about that, even if it's just while you're sitting and watching TV and putting the belt around your foot.

>> **Michael Kaufman:** Yes. Michael Jordan used to swear by it. Stretch before and stretch after basketball games.

>>**Rick Somers:** Yes, we know what he could do.

>> **Michael Kaufman:** That's right. So, I don't know that stretching can make Michael Jordan out of people, but you're right, just a towel around the foot and pulling it back can be helpful. Exercises, just holding onto the seat of your chair and turning to stretch your arms. There are lots of things that you can do just sitting there.

>>**Rick Somers:** You know, it seems pretty rudimentary, but I think we tend to forget that we can do some of these things while we're sitting there watching "Seinfeld" reruns, or whatever it is we're watching on TV. And I guess it's good to have professionals like you remind us that we can do things to make our lives a little bit better.

>> **Michael Kaufman:** Yes, or just put up a motivation sign.

>>**Rick Somers:** That's a good idea as well. I want to thank you for your time and your insight, and a pleasure talking with you.

>> **Michael Kaufman:** It's a pleasure for me.

>>**Rick Somers:** Thank you.

Tom: Good information

Tracey: Yes, and now I'm inspired to get back to doing those exercises I used to do.

Tom: And it wouldn't be a bad thing for me either!

Tracey: Something we could do together! Thanks to Rick Somers and Dr. Michael Kaufman for being with us,

Tom: Rick and Dr Kaufman explore other aspects of managing your symptoms in the next episode in this series, when they talk about tremors, seizures and balance. Be sure to check that one out as well.

Tracey: As always, thanks for joining us.