Patty's PT Tips **MS Challenges** **September 15, 2021**

Spasticity Increased muscle tone which can lead to pain and/or muscle contractures

Treatments: a) Medications or Botox injections-talk with neurologist and explain what functional difficulties you think you have due to the increased tone. Not managing these symptoms will lead to increased fatigue and pain

b) Surgical tendon lengthening

c) Stretching-must be done routinely (preferably daily or multiple times per day) to be effective. Different methods are effective and evening stretching before bedtime can help with sleep

d) Positioning-staying in static positions may increase or decrease spasticity. Low loads/intensity are preferable. Splinting may be helpful for a sustained stretch

e) Relaxation techniques-this can dial back the resting tone level

Sensation Too much? Too little?

a) Methods to increase or normalize sensation-tapping, brushing, different textures of cloth, ice swipes, **weight bearing** postures, movement
b) Methods to decrease sensation-warm wraps, relaxation/meditation techniques, stress reduction, medications, CBD

Joint/muscle contractures stretching, splinting, massage, myofascial release, yoga, joint mobilization by therapist, preheating before stretching

Autonomic Nervous System the part of the nervous system responsible for control of bodily functions not consciously directed, such as breathing, the heartbeat, digestive processes, sweating, blood pressure

Sympathetic Nervous System "Fight, flight or freeze" response to stressors

Parasympathetic Nervous System controls the internal body organs in a resting state from the brain to the structure--slows heart rate, increases gland or digestive activities, relaxes sphincter muscles, contracts bladder muscles while relaxing the sphincter for bladder emptying

a) To normalize--stress reduction to decrease sympathetic input
b) Exercise to increase parasympathetic input
c) Empty the "threat bucket"
d) Develop nerve pathways to decrease functional stressors with repetition
e) Fuel body to work more efficiently
*** It's all a balancing act**

Vision Decreased vision increases stress on the nervous system. We must then rely more on proprioceptors of joints in weight bearing positions. Vision helps maintain balance-eyes on the horizon or a fixed point. This helps compensate for lack of normal sensation. It may be influenced by aging eyes (cataracts), double vision or poor eye glass prescription. Helps to recognize architectural barriers. Visual deficits may be a very good reason to use an assistive device-particularly in unfamiliar environments or low light conditions. Good lighting in the home helps navigation and prevents falls!