

Webinar Series



Getting There: What Does Mobility Mean to You?

Monday, October 7, 2019

Presented by:

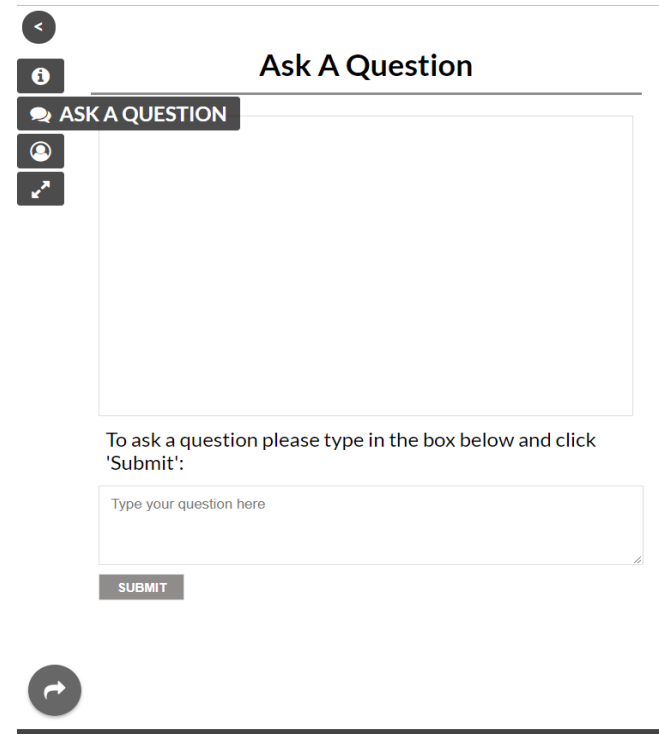


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How to Ask Questions During the Webinar:

- Type in your question in the “Ask A Question” Box,
- This can be found by expanding the second box in your control panel on the left side of your screen.



The screenshot shows a mobile application interface for asking questions. On the left is a vertical control panel with icons for back, info, chat, user profile, and share. The main area is titled 'Ask A Question' and contains a large text input box. Below this box is a smaller input field with the placeholder text 'Type your question here' and a 'SUBMIT' button. A circular refresh icon is located at the bottom left of the main area.

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Objectives

- Understand that optimal mobility is safe mobility
- Be familiar with the symptoms that impact mobility
- Identify which medical interventions, equipment options, and exercise strategies can help to manage common mobility challenges
- Be empowered to advocate for your mobility in your community

The Wise Randy Schapiro, MD.....



**The Key to
Managing Disability
is Mobility!**

How can you *get there*? What is mobility to *you*?



- Improving transferring?
- Improving walking?
- Exploring wheeled mobility options?

Main symptoms of Multiple sclerosis

Central:

- Fatigue
- Cognitive impairment
- Depression
- Anxiety
- Unstable mood

Visual:

- Nystagmus
- Optic neuritis
- Diplopia

Speech:

- Dysarthria

Throat:

- Dysphagia

Musculoskeletal:

- Weakness
- Spasms
- Ataxia

Sensation:

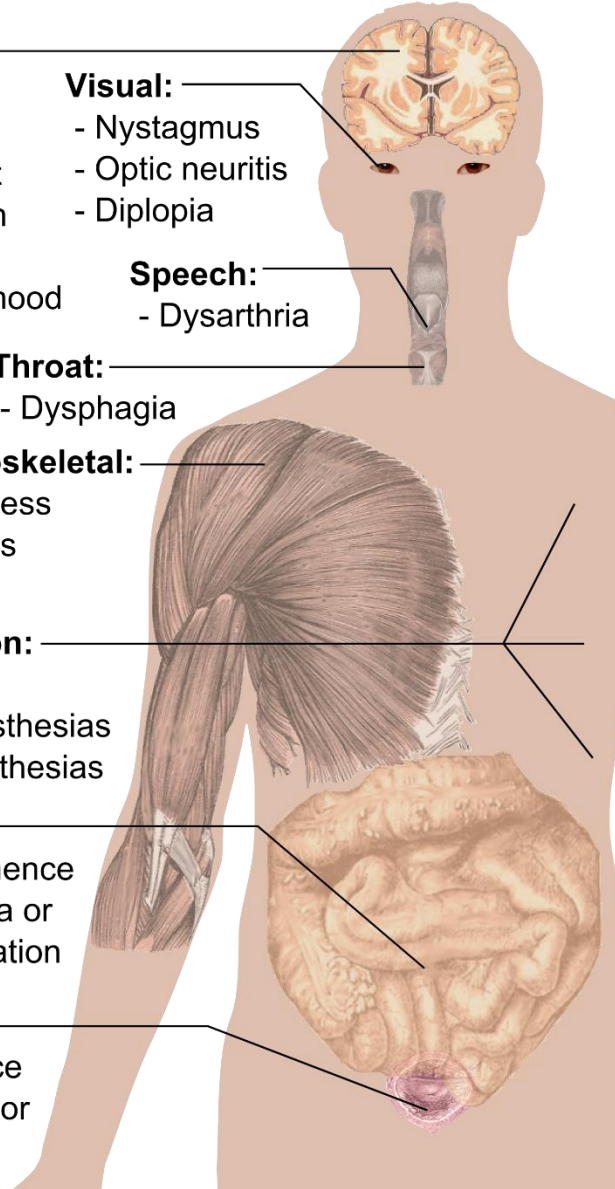
- Pain
- Hypoesthesias
- Paraesthesias

Bowel:

- Incontinence
- Diarrhea or constipation

Urinary:

- Incontinence
- Frequency or retention



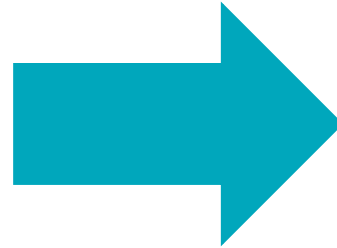
Mobility challenges rarely occur in isolation

- Multiple symptoms “team up” to impact mobility
- Detective work to determine individualized impact on mobility
- Optimal management of mobility symptoms requires a team approach

Symptom: Visual Changes

Symptom:

- Optic Neuritis
- Nystagmus
- Oscillopsia (shaky eyes)
- Double vision
- Age-related vision changes



Impact on mobility:

- Decreased/low vision
- Gaze instability with head/eye movements
- Balance challenges
- Increased fall risk

Symptom: Visual Changes

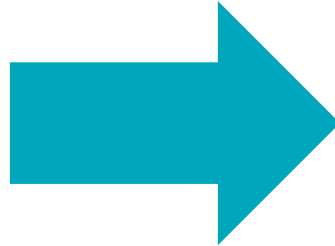
- Steroids
 - New onset of symptoms
 - Do not changes corrective lenses
 - Full recovery after optic neuritis may take 3-6 months
- Lighting in rooms and devices
- Magnifiers
- Corrective lenses
- Prisms
- Eye patches
- Vestibular rehabilitation
 - Herbert, J (2018)
 - Tramontano, M. (2018)



Symptom: Sensory Changes

Symptom:

- Pain
 - Almost half of individuals with MS (48 percent) report chronic pain
 - No correlation age at onset, length of time with MS, or degree of disability
 - Primary versus secondary pain
- Paresthesia
 - Numbness/tingling
 - Can vary in severity
- Absence of vibratory sense



Impact on mobility:

- Pain can change movement patterns
- Altered sensation in feet and legs can significantly impact mobility (balance and walking) especially on uneven surfaces
- If sensory input interfered, then motor output may be compromised (large and small motor movements)

Types of pain	Characteristics	Treatment
Dysesthetic Extremity Pain	Chronic burning, tingling, tightness, or pins-and-needles feelings; a dull warm aching; worse at night and after exercise, aggravated by temperature and weather.	<ul style="list-style-type: none"> • Same as for paroxysmal limb • Dull aching pain responds best to tricyclics such as amitriptyline • May require maximum dosing
Spasms	Muscle cramping, pulling, and pain.	<ul style="list-style-type: none"> • Stretching exercises • Baclofen, botulinum toxin, tizanidine, dantrolene, intrathecal baclofen
Musculo-Skeletal Pain	Caused by the physical stress of immobility. Physician should first rule out spinal disc disease.	<ul style="list-style-type: none"> • Stretching exercises • Posture & gait evaluation; gait aids, orthotics • Exercise (esp. swimming) to increase strength and flexibility • NSAIDs such as ibuprofen • Proper seating, position changes, support and cushioning • Application of heat and cold
Iatrogenic Pain	Pain caused by MS treatment, such as steroid-induced osteoporosis, interferon side-effects, injection site reactions.	<ul style="list-style-type: none"> • Discuss problems with your healthcare provider; treatment may involve changing medication
Secondary Pain of MS symptoms	Pain associated with pressure sores, stiff joints, muscle contractures, urinary retention, urinary tract infection, other infections.	<ul style="list-style-type: none"> • Treating the cause usually alleviates the pain. • Physician should assess for depression.
Trigeminal Neuralgia	Excruciating, sharp, shocklike pain in cheek and forehead, lasting seconds to minutes; may be triggered by speaking or a touch.	<ul style="list-style-type: none"> • Carbamazepine, gabapentin, lamotrigine, misoprostol, phenytoin, baclofen (medications may be combined) • Surgery, as last resort: rhizotomy or nerve ablation (removal)
Tonic Spasms	Brief muscle twitching or sudden, sharp muscle spasm; may also burn or tingle.	<ul style="list-style-type: none"> • Same medications as above
Paroxysmal Limb Pain	Painful burning, aching, or itching of any part of the body but more common in the legs.	<ul style="list-style-type: none"> • Same as above and amitriptyline, clonazepam, diazepam • Application of heat and cold (some MS specialists avoid using heat) • Capsaicin ointment • Pressure stockings (some MS specialists recommend using pressure stockings and some do not)

Symptom: Sensory Changes

Management strategies

- Medications
 - No medications
- Rehabilitation strategies
 - Shoes
 - Insoles
 - Balance training
 - Assistive devices for safe mobility
- Other non-MS causes for sensory changes

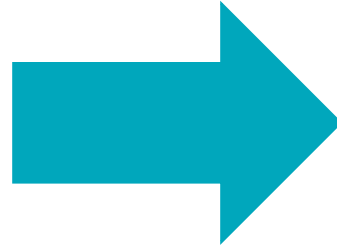
A Common Relationship:



Symptom: Muscle Weakness

Symptom:

- Primary weakness versus secondary weakness
- Common muscle groups impacted:
 - Hip flexors
 - Quadriceps
 - Hamstrings
 - Dorsiflexors
 - Triceps
 - Wrist extensors



Impact on Mobility

- Walking
- Balance
- Transfers
- Wheelchair propulsion

Symptom: Muscle Weakness

Management strategies:

- Resistance training guidelines:
 - Frequency: 2-3 Sessions/Week
 - Intensity: 1-3 sets, 8-15 repetitions
 - Time/Duration: 20-30 minutes; can be completed in 1 session, or multiple smaller sessions during the day
 - Type/Mode: Free weights, machines, body resistance, resistance bands

Symptom: Spasticity

- Sudden, involuntary flexing (bending) or extending (straightening) of a limb, or jerking of muscle groups
- Hyperactive (overactive) reflexes, such as a muscle spasm when you are lightly touched
- Stiff or tight muscles at rest, so that it is difficult to relax or stretch your muscles
- Muscle tightness during activity; may disturb sleep
- Spasticity can fluctuate
- A word about “clonus”
- Spasticity may not always interfere with mobility

Common Spasticity Triggers:

- Stretching your muscles
- Moving an arm or leg
- Anxiety stress
- Any irritation to the skin, such as rubbing, chafing, a rash, in-grown toenails, or anything that would normally be very hot or cold or cause pain
- Pressure sores
- A urinary tract infection or full bladder
- Constipation or large hemorrhoids
- Fracture or other injury to the muscles
- Tight clothing, wraps or binders braces

Symptom: Spasticity

- Does not necessarily mean MS is worsening
 - Check for infection UTI
- Antispasmodics
 - Baclofen (Lioresal) 10-20mg po tid –qid (max 80-100mg/d)
 - Tizanidine (Zanaflex) 2-4 mg po q 8 hr (max 36mg/day)
- Other meds
 - May potentiate
- Baclofen Pump-
 - at max oral Baclofen and not improved or unable to tolerate CNS effects of Baclofen
- Botox

Symptom: Spasticity

- Flexibility Guidelines:
 - Frequency
 - Daily
 - Intensity
 - 2-3 repetitions each muscle group
 - Time/Duration
 - Hold each repetition 20-60 seconds
 - Type/Mode
 - Individually, with partner, or with equipment

Symptom: Fatigue

- Occurring in about 80 percent of people with MS
- Fatigue can worsen all MS symptoms impacting all mobility
- Rule out other causes NOT related to MS



Symptom: Fatigue

Primary “lassitude”

- Unique to people with MS
- Generally occurs on a daily basis
- May occur early in the morning
- Tends to worsen as the day goes on aggravated by heat and humidity
- Comes on easily and suddenly
- More intense than normal fatigue
- More likely to interfere with daily responsibilities

Secondary

- Muscle fatigue
- Poor sleep
- Deconditioning
- Mood changes and stress
- Inadequate nutrition
- Side effects of medications
- Other non-MS causes

Common Mobility Problem: Gait

Gait deviations:

- Difficulty advancing involved leg
- Toes dragging/drop foot
- Knee buckling forward
- Knee hyperextending
- Shuffling

Dalfampridine (Ampyra™)

- Increased action potential conduction in demyelinated axons
- All types of MS
- 10 mg po q 12 hours
- Contraindicated: seizure, renal insufficiency
- May not work in everyone

Rehabilitation

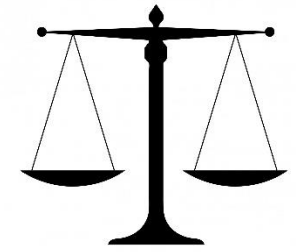
- Resistance training exercises
- Flexibility exercises
- Gait/balance training
- Assistive device options

Foot/Leg Bracing Options:

- AFO: Ankle Foot Orthosis
- Hip Flexion Assist Device
- Functional Electrical Stimulation Devices

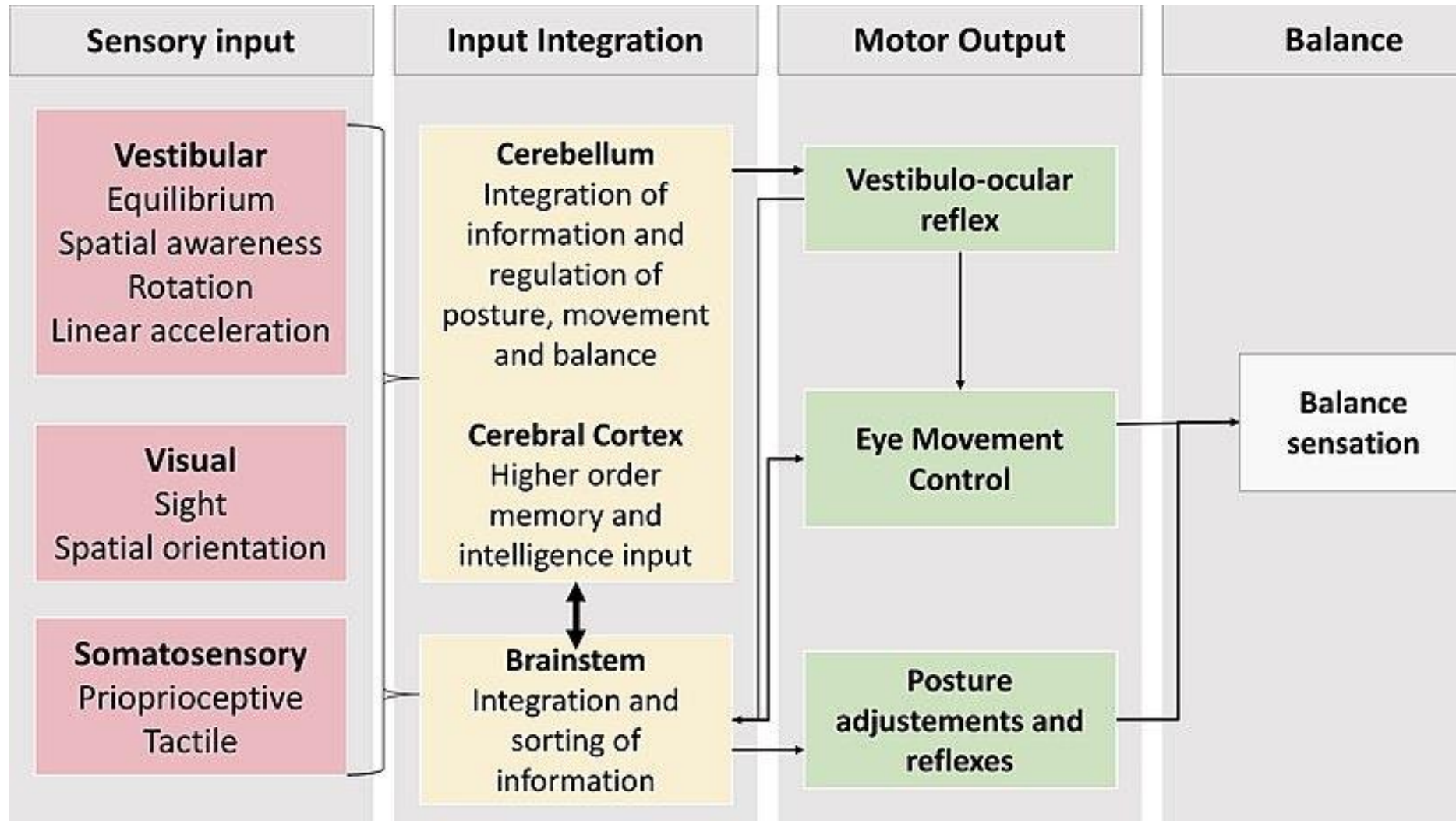


Common Mobility Problem: Falls



- Falls are a common issue for people with SPMS, who are twice as likely to fall as those with RRMS
- 70% of people with MS fall regularly at a rate of > 26 falls per person per year with SPMS.
- More than 10% of these falls lead to injuries
- People with MS are three times more likely to sustain a fracture than the general population
- Falling and fear of falling ... leading to activity curtailment, social isolation and a downwards spiral of immobility, deconditioning and disability accumulation

Why are Falls Common? Why are Falls Complex?



Common Mobility Problem: Optimal Wheelchairs or Mobility Aid

- Improper fit of mobility aid, wheelchair, or braces
 - Contributes to poor posture
 - May compromise skin
- Hesitation to use the next more “progressive” device
 - Increases fall risk
 - Reinforces poor movement patterns that may contribute to pain/injury

Common Mobility Problem: Transfers

Management strategies

- Arm strength
- Slide boards
- Transfer poles
- Grab bars
- Height (risers)
- “Pulleys”
- Trapeze bed rails
- Automatic beds and lifts
- Slow and steady transitions

Bowel and Bladder Impact on Mobility

Challenges

- Urgency
- Frequency
- Incontinence
- Retention

Management Strategies

- Consistent hydration
- Know your bathrooms
- Pads, pads, and more pads
- Urologist
- Medications
 - Short Acting
 - Longer Acting
 - Botox
- Catheters

Sometimes improving mobility isn't just managing symptoms...

- Formal PT, OT
 - Home evaluations
- Transportation
 - Private and public options
- Community Engagement
 - Physical presence
 - Tele exercise
- Advocate for environmental accessibility
 - Become an NMSS Activist

Don't lose it

- Exercise is an efficacious and safe add-on therapeutic intervention showing a medium-sized effect on QoL and a large effect on mood in patients with chronic brain disorders, with a positive dose-response correlation.
- Exercise also improved several cognitive domains
 - Depressive symptoms
 - Cognitive domains
 - Attention and working memory
 - Executive functioning
 - Memory
 - Psychomotor speed



The Wise Randy Schapiro, MD.....



**The Key to
Managing Disability
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Cited Sources

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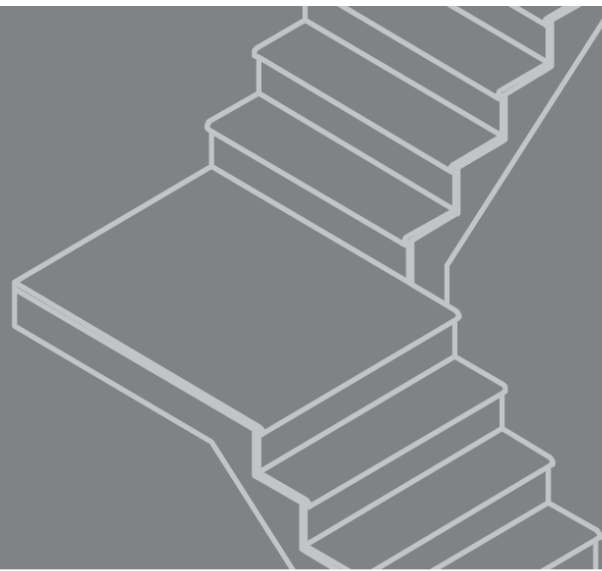
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