

MULTIPLE SCLEROSIS

Fundamental Items Checklist (PHASE A)

- ☐ Myelin, Schwann cells, myelinated vs unmyelinated pathways
- ☐ Optic neuritis and oculomotor disorders
- ☐ Imaging to diagnose and document progression of MS
- ☐ Variations in clinical presentation based on lesion location (e.g. cortex of cerebellum vs spinal lesion)
- ☐ Incidence, etiology, pathophysiology of MS
- ☐ Different types of MS and prognosis
- ☐ Pulmonary implications of MS
- ☐ Forced expiration and coughing deficits in persons with MS
- ☐ Risks associated with immunosuppressant medications
- ☐ Medications to control MS and other autoimmune diseases (e.g. IVIg, immunosuppressants, intramuscular interferon injection)
- ☐ McDonald Criteria for diagnosis
- ☐ Lhermitte's Sign
- ☐ Charcot's Neurologic Triad
- ☐ Oligodendrocytes vs. Schwann Cells

Key Articles (PHASE B)

- ☐ Rehabilitation for People with Multiple Sclerosis: An Overview of Cochrane Reviews, Amatya et al *Cochrane Database Sys Rev*, 2019
- ☐ Gait deficits in people with multiple sclerosis: a systematic review and meta-analysis, Comber et al, *Gait & Posture*, 2017
- ☐ The Effects of exercise training in adults with multiple sclerosis with severe mobility disability: A systematic review and future research direction, Edwards et al, *Multiple Sclerosis and Related Disorders*, 2017
- ☐ Exercise and lifestyle physical activity recommendations for people with multiple sclerosis throughout the disease course, Kalb et al, *Multiple Sclerosis Journal*, 2020
- ☐ Immediate and sustained effects of interventions for changing physical activity in people with multiple sclerosis: Meta-analysis of randomized controlled trials, *Arch Phys Med Rehabil*, 2020
- ☐ Examining the Relationship between Reactive Stepping Outcomes and Falls in People with Multiple Sclerosis, Monaghan et al *Physical Therapy*, 2022
- ☐ Exercise as a therapy for improvement of walking ability in adults with Multiple Sclerosis: a meta-analysis, Pearson et al *Archives of PM&R*, 2015
- ☐ Systematic Review on Exercise Training as a Neuroplasticity-inducing behavior in Multiple Sclerosis, Sandroff et al, *Neurorehabil Neural Repair*, 2020

Clinical Items Checklist (PHASE C)

- ☐ Expanded Disability Status Scale (EDSS) scoring and expectations for MS
- ☐ Heat intolerance in MS and impact on exercise
- ☐ Lassitude vs muscular fatigue
- ☐ Signs of over-fatigue in patients with active demyelination
- ☐ Clinical and imaging signs of a new lesion in MS
- ☐ Recommended type and intensity of exercise in MS
- ☐ Impact of aerobic exercise and strength training on persons with MS
- ☐ Medical regimens in MS including injections
- ☐ Spasticity management in rehabilitation and via medication (e.g. oral Baclofen vs intrathecal vs botox injection)
- ☐ Uthoff's Phenomenon and clinical implications of heat sensitivity
- ☐ Recommended outcome measures, fall risk cutoff scores, and normative values if any (from the MS Edge Task Force)
- ☐ Functional Electrical Stimulation and indicators for patients with difficulty with movement
- ☐ Measurement and management of fatigue in MS
- ☐ Coordination assessments of the upper and lower extremity
- ☐ Sensory testing
- ☐ Balance and fall risk screening
- ☐ Bowel and bladder dysfunction in MS (e.g. flaccid vs spastic)
- ☐ Speech and swallowing deficits in MS
- ☐ Neuropathic pain, paresthesias, and sensory disturbance in persons with MS
- ☐ Energy Conservation and Pacing Frameworks
- ☐ Functional Electrical Stimulation (FES)