FACT SHEET

Multiple Sclerosis and Exercise

Author: Maria Rundell, PT, DPT, MSCS

Why is an individualized exercise program beneficial to people with Multiple Sclerosis?

Multiple Sclerosis is a neurologic disease that can lead to weakness, decreased walking, decreased balance and coordination, and a decreased activity level that in turn can lead to a sedentary lifestyle. For a long time exercise was thought to be detrimental to Multiple Sclerosis, but in recent years studies have shown that exercise is not related to worsening of Multiple Sclerosis; in fact, exercise has many positive benefits associated with it, including:

- Improved strength and mobility
- Improved balance and endurance
- Improved lung function
- Improved bowel and bladder function
- Decreased fatigue and spasticity
- Improved function and quality of life, and sense of well-being
- Decreased depression
- Decreased risk of heart disease

What types of exercises are beneficial for people with Multiple

There are a wide variety of symptoms that can be experienced by someone with Multiple Sclerosis. Because no two people with Multiple Sclerosis present with the same symptoms, each person should be evaluated by a skilled Physical Therapist to determine their specific exercise needs. Some components of a comprehensive exercise program are listed below.

Stretching Program:

- Should be performed daily, and helps manage spasticity and reduce risk of contractures
- Can be done individually or with a helper
- T'ai Chi, yoga, and pilates have also been shown to improve range of motion

Aerobic Conditioning:

- Performed 3-5 times per week for 20-30 minutes, may need to gradually work up to 20 minutes
- Can be done by participating in walking programs over land or on a treadmill, using the Nu-Step, upper or lower body ergometer, elliptical, or stationary bike

Strengthening:

- Should be performed 3-5 times per week, 1-3 sets of repetitions to fatigue for each muscle group exercise
- Focus on specific muscle groups that are the weakest and contribute to decreased function; muscles that affect your walking, ability to go up and down stairs, as well as getting up from the floor

APTA American Physical Therapy Association Neurology Section

1111 North Farifax Street
Alexandria, VA 22314-1488
Phone: 800-999-2782,
Ext 3237
Fax: 703-706-8578
Email: neuropt@apta.org
www.neuropt.org

Parkinson's Disease and Exercise

NeurologySection

- Balance and coordination training can decrease risk of falls and prevent injuries sustained as a result of a fall
- T'ai Chi, Swiss ball exercises, and task specific balance and coordination exercises performed with a Physical Therapist can improve balance and coordination

Aquatic Exercise

- Cool water exercise, in the 80-degree temperature range.
- Buoyancy of water makes it easier to move and perform exercises while the cool temperature combats hypersensitivity and reduces fatigue
-

When should someone with Multiple Sclerosis Exercise?

To get the most out of a an exercise program and decrease the limiting factor of fatigue, choosing a time to exercise when they are less fatigued is beneficial; this is typically in the morning.

How to combat heat sensitivity while exercising

Around 85% of people with Multiple Sclerosis suffer from heat intolerance. Heat sensitivity can temporarily increase symptoms. It is important to plan ahead and keep core body temperatures down when participating in an exercise program. Some suggestions to keeping cool:

- Keeping hydrated with cool water/iced drinks
- Using cooling garments such as cooling vests or neck wraps
- Using a fan or misting fan during exercise
- Using ice packs
- Exercising in an air conditioned environment
- Avoid outdoor exercise during warm parts of the day
- Wear proper lightweight clothing and shoes
- Taking a cold shower or running hands under cold water post exercise

How much should someone with Multiple Sclerosis Exercise?

It is important to keep moving and avoid the secondary complications that a sedentary lifestyle brings. A continued lifelong moderate exercise program is important to maintain the health benefits. Contact a Physical Therapist to develop a specialized program to meet your individual needs. It may be necessary to annually assess your

APTA
American Physical Therapy Association
Neurology Section

1111 North Farifax Street
Alexandria, VA 22314-1488
Phone: 800-999-2782,
Ext 3237
Fax: 703-706-8578
Email: neuropt@apta.org
www.neuropt.org

References

1. Karpatkin HI. Multiple Sclerosis and exercise, A review of the evidence. *Int J MS Care.* 2005;7:36-41.
2. Gulick, EE et al. Physical Activity Among People with Multple Sclerosis. *Int J MS Care*. 2006;8:121-129.
3. Petajan JH, White AT. Recommendations for physical activity in patients with multiple sclerosis. *Sports Med*. 1999;27:179–191.
4. Latimer-Cheung, AE et al. Effects of Exercise Training on Fitness, Mobility, Fatigue and Health-Related Quality of Life Among Adults with Multiple Scleosis: A Systematic Review. *Archives of Physical Medicine and Rehabilitation*. 2013;9;94:1800-1828.
5. Patejan, J et al. Impact of Aerobic Training on Fitness and Quality of Life in Multiple Sclerosis. *Annals of Neurology*. 1996;39(4):432-441.