

Multiple Sclerosis and Exercise

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Fact Sheet

Multiple Sclerosis (MS) is a neurological disease that affects the information transmitted between the brain/spinal cord and the body. This leads to muscle weakness, decreased cardiovascular and muscular endurance, changes in sensation, mood fluctuations, memory loss, balance problems and walking difficulty.

Many studies support that exercise is shown to have significant benefits, including:

- Improve strength and muscle power
- Improve ease of mobility
- Improve balance and reduce the chances of falling
- Improve endurance to move more and reduce fatigue
- Improve lung function to breathe easier
- Improve bowel and bladder function
- Decrease muscle spasticity and improve flexibility and ROM
- Decrease depression
- Decrease risk of heart disease
- Create a better sense of well-being

Exercise recommendations for individuals with Multiple Sclerosis

Due to the nature of MS, symptoms can vary greatly between individuals. A physical therapist is uniquely positioned to evaluate each person individually and prescribe a comprehensive program specifically tailored to each person's needs, including:

Aerobic conditioning:

- Aerobic conditioning is the use of continuous movements of large muscle groups to strengthen and condition the heart and lungs. Start slow and gently progress duration while monitoring symptoms of breathing and perceived exertion. The American Heart Association recommends 3-5 times per week
- Examples: walking program over land, in a cool water pool, or on a treadmill, stationary bike, elliptical machine, or HIIT exercise training

Strengthening exercises:

- At least 2 days a week, performing 1-3 sets of repetitions to a comfortable level of fatigue, with focus on all major muscle groups
- Examples: use of resistance bands, weights, use of body weight for resistance, aquatic exercise with water as resistance

Stretching program:

- To be performed daily, to help reduce contractures, and improve flexibility
- Can be performed on one's own or with help of another person to optimize the range of motion
- Perform dynamic stretching (lower intensity movements to simulate the workout) before a workout and static stretching after a workout
- Examples: Tai chi, yoga, Pilates, use of stretching straps

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Balance Training:

- To reduce the risk for falls and improve ease of mobility
- Examples: Tai chi, yoga, task-specific balance exercises, balance exercises in a cool water pool (around 80 degrees)

How to combat fatigue and heat sensitivity while exercising

85% of persons with MS experience heat intolerance. Heat sensitivity can temporarily increase symptoms. It is important to plan ahead and keep core body temperature down when participating in an exercise program.

Ways to keep cool:

- Stay hydrated with cool water, iced drinks
- Use cooling garments (cooling vests, neck wraps), ice packs, misting fan or fan during exercise and lightweight, moisture-wicking clothing and shoes
- Exercise in air-conditioned environment
- Avoid outdoor exercise during warm parts of the day
- Take a cold shower or run hands under cold water post-exercise

It is also imperative to monitor and conserve energy throughout the day. Find the best time of day when least fatigued to exercise, usually in the morning.

How often to exercise

It is recommended to keep moving to avoid the secondary complications that affect optimal quality of life. A continued lifelong moderate exercise program is important to maintain health benefits.

Contact a physical therapist to develop a specialized program to meet your individual needs or receive an annual checkup to optimize quality of life.

Reach out to National MS Society or MS Association of America for wellness groups in your area to build a network for lifelong exercise maintenance.

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