

Exercising your options



Physical activity may help ease MS symptoms.

by Aviva Patz



Dan Melfi, diagnosed with MS in 2009, stretches out with a yoga pose after a workout. Photo courtesy of Dan Melfi

Dan Melfi was used to bicycling up and down mountains in his home state of Colorado when he was diagnosed with multiple sclerosis in 2009 at age 58. Now, he needs some assistance to walk—a walker, scooter, forearm crutches and, occasionally, a wheelchair. He's a bigger advocate than ever of an active lifestyle. He goes to an MS swim class twice a week, which he enjoys because it helps him move all parts of his body without fear of falling, and he

practices yoga.

“There are so many times when I wake up and everything hurts so bad—my knees are tight as a drum—and I force myself to do yoga,” he says. “Then I do it and I loosen up—everything relaxes, I relax. And I think, ‘how could I not want to do this?’”

Beyond the benefits for overall health—lowering heart disease risk and blood pressure, improving sleep, boosting bone health—research suggests that exercise helps people with MS improve aerobic capacity, muscle strength, balance and other factors that make it easier to get around, while also enhancing cognition, fatigue and mood. A 2010 study in the journal *Brain Research* suggests that exercise may even help stop MS from progressing.

“It’s the fountain of youth,” says Denis Avans, a wellness-fitness coordinator and certified personal trainer with Alabama Neurology. “If you could put the effects of exercise in a pill, it could be the most potent medicine of all.”

Here’s what you need to know to put physical activity to work for you.

New evidence for exercise

Some studies show that exercise can improve symptoms for people with mild to moderate MS, but until recently, it wasn’t clear how much it could help people with more advanced disease progression. A 2016 study in the *International Journal of MS Care* showed that people with progressive MS who have moderate to severe movement issues can benefit from aerobic conditioning. In the study, those who used either a recumbent stepper or a body weight-supported treadmill three times weekly for 12 weeks felt less fatigue and had an improved quality of life.

Other new research suggests you can even train hard—and should, if possible. A 2017 study in the journal *Multiple Sclerosis* showed that high-intensity aerobic training—very high-intensity bursts of cardio followed by rest periods—improved cognition better than standard exercise.

“This flies in the face of older conventional wisdom that people with MS shouldn’t exercise aggressively—that it will be too hard or exacerbate the disease, which it won’t,” explains Herbert Karpatkin, a physical therapist and assistant professor of physical therapy at Hunter College in New York City. Karpatkin’s own research, published in the journal *Multiple Sclerosis International* in 2016, shows that after people with MS lifted weights at a maximal level, they not only had no complications from the weight training, but they improved their gait and balance. Karpatkin believes the benefits come from increased production of brain-derived neurotrophic factor, or BDNF, which helps form new neuronal connections.

Licensed physical therapist Stephen Kanter, director of Rehabilitation Services, International Multiple Sclerosis Management Practice in New York, sees every day how critical it is to keep moving. He sees exercise as an important way to improve quality of life and potentially

forestall disability for some people.

How to get started

It's a good idea before beginning an exercise program to be evaluated by your doctor or a physical therapist. Be sure that any trainer, coach or instructor you work with is knowledgeable about MS. You can find MS-certified physical therapists at [Partners in MS Care](#) on the National Multiple Sclerosis Society's website. The Society also has an online course for fitness and wellness instructors that provides information about how to help clients with MS engage in effective and safe fitness programs. Learn more at [Introduction to MS: An Online Course for Fitness & Wellness Professionals](#). MS Navigators also can help you find a reputable professional. To contact an MS Navigator, email ContactUsNMSS@nmss.org.

Checklist for a personal trainer

1. Ask your neurologist or support group for a recommendation for an MS-certified trainer or instructor, or search on the Society's website. MS fitness specialists have "MSCS" after their name.
2. If you can't find an MS fitness specialist, ask a trainer or instructor if they've worked with people with MS before and what types of modifications they've suggested. Talk to the trainer's clients or people who've taken their classes, but in the end, trust your feeling about them.
3. Before meeting with the trainer, write down your goals, concerns and any questions you might have about how the trainer can help.

Kanter suggests working with your therapist or trainer to set specific goals for physical wellness and to address deficits caused by MS (such as difficulty walking or staying balanced), as well as for overall physical and mental wellness. Once you set goals, find a realistic set of activities in your preferred setting, and make sure they're fun or at least somewhat enjoyable, so you'll actually do them.

For those with significant mobility problems, there still may be exercises or physical activity that you can do. Stretching (even with a helper) may be beneficial to keep joints healthy. Modified chair exercises, or assisted physical activity, such as moving in a pool with a helper, standing in a standing frame, having someone help move your limbs through their range of motion, or even singing to exercise respiratory muscles can be beneficial.

"Try what interests you or what you feel drawn to," recommends Cherie Hotchkiss, a yoga instructor who leads classes for people with MS and has MS herself. "I knew I needed to be in the water after the first MS event I experienced left me completely numb from the waist down," she says.

Hotchkiss, diagnosed in 2005 at age 38, got a referral from her neurologist to a therapy pool

in her community, and a therapist there created a short program she could do on her own, using a noodle. “Being in the water gave me freedom to use my body and helped strengthen my core,” Hotchkiss says. “Slowly I regained enough strength to swim a lap, walk about a quarter of a mile and practice modified yoga poses on my mat.”

Choosing an exercise

There is no one best exercise for MS because there’s no one kind of MS, Karpatkin explains, but these three types of activities have shown promise in helping people with MS:

Aerobic: Get your heart rate up with brisk walking, jogging, running, dancing, swimming or bicycling three times a week for 20 to 30 minutes or more. Gardening and laundry count, too. Take breaks and sip cold drinks to avoid getting overheated, Karpatkin suggests. He recommends “[Free from Falls](#),” a program by the Society that aims to improve balance, and a “gait endurance” program your physical therapist can design for you that intersperses walking and rest periods. In a 2015 study in the *Journal of Clinical and Experimental Neuropsychology*, walking bested yoga and cycling at improving cognitive function. And a 2016 study in the journal *Disability and Rehabilitation* reported that twice-weekly salsa dancing for four weeks improved participants’ gait, balance, motivation, physical activity and MS symptoms.

Judy Boone, who was diagnosed with MS at age 40, swears that her aerobic walking machine and twice-weekly strength training workouts have helped her continue working full time and stay involved in her kids’ activities. “It’s given me a lot more energy to do the things I enjoy and take care of my family,” she says. Since starting an exercise program, she feels less stress and pain, and has fewer muscle spasms in her legs.

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Stretching: Try yoga or tai chi, which focus on flexibility, long gentle stretches, posture, relaxation and breathing. A 2016 study in the *Journal of Clinical and Diagnostic Research* showed that for people with MS, yoga enhances physical activity, increases lower limb strength and balance, decreases fatigue and pain, and helps relieve stress and anxiety. Just avoid hot yoga if you have heat intolerance.

After Garth McLean’s MS diagnosis at age 36, he transitioned from martial arts and gym to daily Iyengar yoga, which focuses on body alignment and the use of props (ropes, blocks, chairs and blankets) for support. “Iyengar helped me keep moving,” says McLean, who had numbness and spasticity throughout his body, difficulty walking, and bladder and bowel incontinence. “After I started this practice, I felt sensation in my body again.” McLean is now a senior certified Iyengar yoga instructor based in Los Angeles.

Strength training: Lifting weights improve overall muscle strength as well as gait and balance, according to Karpatkin. And as reported in a 2017 study in *Multiple Sclerosis Journal*, six months of twice-weekly resistance training prevented the loss of neurons in people with

MS.

Melfi, in addition to practicing with yoga videos five to seven times a week, also makes sure to do weight training. “It helps me mentally and physically,” he says. “It really takes down the spasticity in my legs.”

Fitness resources

Don't let cost be an obstacle. Insurance should cover your initial evaluation, and these resources are free online:

- Check out [ChairFit with Nancy](#), a series of free, seated exercise videos on YouTube.
- The [Multiple Sclerosis Trust](#) has a series of exercise videos for people with MS to address balance, endurance, strength and flexibility.
- [14 Weeks to a Healthier You](#) is a free, personalized, web-based physical activity and nutrition program targeted to people with mobility limitations.
- The [Canadian Physical Activity Guidelines for Adults with Multiple Sclerosis](#) can help adults with mild to moderate disability improve their fitness.
- The Society lists accessible nature trails, accessible bicycling spots and a guide to finding a sport you love. See [Recreation](#).
- The Society offers an [Introduction to MS online course for fitness instructors](#) and wellness coaches.

Aviva Patz is a freelance writer in Montclair, New Jersey.

Learn more about [exercise and MS](#).