

What you need to know about Multiple Sclerosis

Multiple sclerosis (MS) is a disease that causes the body's immune system to attack the protective coating around nerve fibers in the central nervous system. The exact cause of MS is unknown. Scientists believe MS is triggered by unknown environmental factors in people who are genetically predisposed to respond. MS affects the brain, optic nerves, and spinal cord.

MS is estimated to cost the United States more than \$10 billion a year. In a study published by the U.S. National Library of Medicine National Institutes of Health (NIH), the total health care costs for an MS patient can be up to \$54,244 a year (Fielding School of Public Health, 2013).

In order to avoid these high costs and also slow the progression of the disease, it is important that you follow your doctor's orders and take your medication exactly how your doctor prescribed it.

Why is taking my medication important?

Your doctor has told you that you have to take this medication. What does it do? Why should you take it? Taking MS drugs as prescribed may have one or more of the following effects:

- Reduction in numbers of new lesions shown on magnetic resonance imaging (MRI)
- Reduction in the number of exacerbations (also called relapses, attacks, flare-ups)
- Reduction in the progression of disability
- Probable reduction in future disease activity

Why start treatment now?

Research indicates that permanent damage may be occurring in the central nervous system even before someone starts experiencing any symptoms.

Medicine slows disease progression, decreases exacerbations, and can help lower the number of attacks and their severity. By slowing the disease progression, you slow the damage to the brain.

Reluctant to start treatment?

We understand that starting therapy can be scary. Let's explore some of the reasons you might be hesitant:

- **Absence of symptoms** — Not experiencing symptoms yet? Research shows that the disease can be causing significant, irreversible damage in your nervous system even if you aren't experiencing any symptoms (Multiple Sclerosis Coalition, 2015).
- **Fear of needles** — Many people hate needles. Your PerformSpecialty nurse can help! We can help you get assistance that will help you learn how to self-inject comfortably. There are methods to help with self-injection anxiety.
- **Fear of side effects** — Most medications have side effects. MS medications do, too. Some patients experience only injection site reactions. Others may experience temporary symptoms that can feel like a mild flu. Some people — particularly those whose MS symptoms are mild or in remission — may hesitate to take a medication that could make them feel worse rather than better. However, your doctor and your stePS nurse can give you tips and strategies to reduce the side effects and make them more manageable. Most side effects diminish over time.

Remember, you can always talk to your stePS nurse at PerformSpecialty about any concerns you have.

Staying on track

Taking your drugs as prescribed is the most important way to help manage your MS. These medications can help slow the disease.

Since MS is a lifelong condition, treatment is also lifelong. Your stePS nurse will support you while you get used to your therapy. Drugs to treat MS may include weekly or daily shots. Some drugs can be taken by mouth. Regardless of how you treat your condition, you should do your best not to miss any doses. Otherwise, your MS symptoms may worsen and the condition will progress.

Remember, even though you don't feel MS damaging to your body, it is happening. MS drugs can limit this damage. Even if you can't see or feel a difference, your therapy may be working to slow the progression of your MS.



Exercise/rehabilitation

Exercise is helpful in managing many MS symptoms and is essential to general health and well-being. A study published by researchers at the University of Utah in 1996 showed the benefits of exercise for people with MS. Patients who took part in an aerobic exercise program had healthier hearts, improved strength, and better bladder and bowel function. They also had less fatigue and depression. In addition, they had a positive attitude and increased participation in social activities.

The goal of rehabilitation is to improve and maintain function — it's essential!

Rehabilitation specialists are there to help you improve and maintain function. This is an essential component of MS care. Your doctor will help you build a team of specialists who can help promote good health, reduce fatigue, and help you feel your best.

Your rehabilitation team may include physical therapy, occupational therapy, cognitive rehabilitation, speech-language pathology, and more. This team is especially helpful if your symptoms begin to interfere with everyday activities like mobility, dressing, and personal care. They can also help with evaluation and treatment of speech and swallowing difficulties, and/or problems with thinking and memory.

Be sure to talk to your doctor before starting a new exercise program.



Nutritional education

There is no specific diet for MS, but it is important to stay in good health. When healthy, your body has an easier time coping with your condition. Fatigue is a common MS-related symptom, which can affect the way you eat. When people are tired, they may skip meals or rely on fast food. Over time, this can cause nutrient deficiencies.

Make meal time easier by stocking your kitchen with healthy food that is easy to cook.

The MS-friendly kitchen should contain foods like:

- **Frozen vegetables.** Choose the vegetables you like. Then, just pop them in the microwave or heat them on the stove.
- **Rice.** Rice is simple to prepare and can be cooked in less than 20 minutes. Brown rice is better than white rice because it has more fiber. Wild rice may be the best choice as it is a good source of fiber, folate, magnesium, phosphorus, manganese, zinc, vitamin B6, and niacin. Wild rice also provides more protein than most other whole grains.
- **Whole-grain crackers or rice cakes.** Foods with whole grains keep you full longer.
- **In-season fruits and vegetables.** These items are usually cheaper and fresher than out-of-season items.
- **Pre-cut vegetables and fruits and bagged salads.** You don't have to chop anything. Just open the bag and pour into a bowl.
- **Peanut butter.** Peanut butter has great protein content, and you can use it in many different meals. Try it with bananas or apples, on bread, or with celery.
- **Omega 3s.** The National MS Society reports that omega 3s have been the focus of MS studies, with some evidence pointing to benefits for relapsing-remitting MS. Omega-3 fatty acids can be found in large quantities in certain fatty fish such as salmon, mackerel, herring, and sardines, as well as in fish oil products. The highest amounts can be found in fish oil supplements, while smaller amounts are in canola oil, flaxseed, and walnuts. A daily dose of 3 grams is considered safe for most people.

Tips for preparing meals

- **Plan ahead.** Have you thought about cooking ahead? Try baking several chicken breasts instead of just enough for one meal. You can also roast a pan full of vegetables in the oven. This way you have lunch prepared for the rest of the week, and you are making good and healthy decisions!
- **Ask your family and friends to help.** Grocery shopping may leave you tired. Don't be afraid to ask your family or friends to help you.
- **Spend less energy.** Try sitting down while you prepare your food. This will help you save energy for the other things you want to do.



Resources:

What is Multiple Sclerosis? National Multiple Sclerosis Society. Available at www.nationalmssociety.org/What-is-MS/Definition-of-MS. Accessed September 17, 2015.

Facts & Comparisons eAnswers. Interferon Beta-1A. Accessed March 16, 2016.

Multiple Sclerosis. Cleveland Clinic. Available at www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/neurology/multiple_sclerosis/Default.htm. Accessed September 17, 2015.

Adherence. National Multiple Sclerosis Society. Available at www.nationalmssociety.org/Treating-MS/Medications/Adherence. Accessed September 17, 2015.

Wild Rice September Grain of the Month. Oldways Whole Grains Council. Available at wholegrainscouncil.org/node/7314/print. Accessed September 21, 2015.

Just the Facts Brochure. National Sclerosis Society. 2010.

MS Progression. MS Active Source. Available at www.msactivesource.com/msasProject/masas.portal/_baseurl/threeColLayout/MSASRepository/en_US/masas/home/ms-information/ms-progression.xml. Accessed June 25, 2014.

Staying on MS Treatment. MS Active Source. Available at www.msactivesource.com/msasProject/masas.portal/_baseurl/threeColLayout/MSASRepository/en_US/masas/home/experienced-with-ms/staying-on-treatment.xml. Accessed June 25, 2014.

MS Meal Planning. MS Active Source. Available at www.msactivesource.com/msasProject/masas.portal/_baseurl/threeColLayout/MSASRepository/en-en_US/masas/home/wellness/ms-diet-nutrition/multiple-sclerosis-meal-planning.xml. Accessed June 25, 2014.

Exercise. National MS Society. Available at www.nationalmssociety.org/living-with-multiple-sclerosis/healthy-living/exercise/index.aspx. Accessed June 25, 2014.

The Omega-3 Factor. Available at www.nationalmssociety.org/Living-Well-With-MS/Health-Wellness/Diet-Nutrition/Omega-3. Accessed March 2016.

All images are used under license for illustrative purposes only. Any individual depicted is a model.

PRXS-16210