



Patient Information

Living With Multiple Sclerosis

If you receive a diagnosis of multiple sclerosis (scluh-roe-sis) (MS), living with this lifelong disease may require lifestyle changes. MS is a disease that causes the nerve's myelin coating to become inflamed and eaten away in patches. When this happens, signals traveling along the affected nerve are temporarily disrupted. This interferes with movement and sensation.

How do I know if I'm at risk?

No one knows the cause of MS, but an abnormal immune response is suspected. A higher incidence of MS is found in temperate locations such as Europe and North America. The average age of diagnosis is between 20 and 40 years of age. MS is not contagious, but it does occur more often in some families than in others.

What are the warning signs?

MS symptoms vary widely, depending on where the myelin sheath has been damaged. Some possible signs to look for include:

- Visual problems
- Pain at the back of the eye
- Face pain
- Difficulty concentrating
- Anxiety
- Depression
- Mood swings
- Weakness
- Difficulty walking
- Numbness
- Dizziness
- Balance problems
- Speech problems
- Incontinence
- Sexual dysfunction

When do I need medical attention?

Although patients with MS usually start having symptoms when they're between the ages of 20 and 40, the disease may not be recognized until later. This is partly because symptoms tend to come and go. For that reason it's important to tell your doctor right away if you're having some combination of fatigue (tiredness), loss of coordination, muscle weakness, numbness, pins and needles, slurred speech, and visual problems.

What tests do I need?

Diagnosing MS can be difficult because there's no specific test for the disease. The diagnosis is usually based on symptoms and a certain pattern of scarring in the brain or changes in the spinal fluid. Since other conditions can mimic MS, MS can only be confirmed by a neurologist (nyoo-ruhl-uh-gist)—a physician who specializes in nerve diseases.

Certain procedures, such as those below, can help confirm the diagnosis of MS.

- **Magnetic resonance imaging (MRI).** MRIs provide your doctor with a picture of the tissue that's deep inside your brain or spinal cord.
- **Electrical tests.** Called "evoked potentials," these tests may determine whether your sensory nerves are working properly.
- **Blood tests.** These tests can help rule out other possible causes of your symptoms.

How can I avoid the problem?

Because so little is known about how a pa-

tient gets MS, it's hard to say how you can avoid it.

However, here are some ways to adapt to the problems with getting dressed:

- **Balance.** Get dressed in a chair with arm rests and roll from side to side to get your pants on over your hips while sitting in a chair or lying on a bed.
- **Getting clothes on.** Wear loose-fitting clothes with elastic waistbands. Choose clothing with large, flat buttons or use hook-and-loop enclosures. Use a dressing stick to get your shirt or coat on and off if you have shoulder weakness.

How is it treated?

Medications used to treat MS include:

- **Immunomodulators.** Interferon (in-tehr-feer-on) beta-1b may reduce the frequency and severity of relapses in patients with relapsing-remitting MS. Glatiramer (glah-ti-ruh-mehr) acetate (ahs-eh-tate) and natalizumab (naht-ah-lee-zoo-mahb) may be suitable for some patients with relapsing-remitting MS.
- **Potassium channel blocker.** Dalfampridine (dahl-fam-prih-deen) is used to help improve walking in patients with multiple sclerosis.
- **Sphingosine (sphihn-guh-seen) 1-phosphate (fuhs-fayt) receptor modulator.** Fingolimod (fihn-goe-lih-mahd) may help delay the accumulation of physical disability.
- **Steroids.** Treatment with oral corticosteroids (kahr-ti-koe-stehr-oids) is often gradually decreased over 2 to 3 weeks. Intravenous (in-truh-vee-nus) steroids are usually used for 3 to 5 days. Adrenocorticotrophic (a-dree-noe-kort-i-koe-truh-phic) hormone can be administered by intramuscular injection for a short time.

- **Other drugs.** Interferon (in-tehr-feer-on) beta-1a may help reduce the frequency and severity of relapses in patients with relapsing-remitting MS. Muscle relaxants are used to help reduce muscle spasticity and may help with sharp, cramping pain at night. Mitoxantrone has been shown to benefit people who have secondary progressive MS that is relapsing.

In addition to taking medications, there are additional ways to relieve other symptoms of MS.

- **Exercise and follow a healthy diet.** By eating right and exercising, numbness may be reduced. Strength training (using a special weighted vest and ankle weights) may also improve mobility without increasing fatigue.
- **Cooling your body.** Because MS can make you highly sensitive to changes in temperature, you may find that taking a cool bath, being in an air-conditioned room, or swimming helps you feel better.
- **Dealing with fatigue.** To avoid fatigue, you may find it necessary to rearrange your schedule, eliminate certain tasks, plan time to rest during the day, seek emotional support, and take advantage of valuable resources.

For more information on MS, please visit the website of the National Multiple Sclerosis Society (<http://www.nationalmssociety.org/index.aspx>).

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