
MULTIPLE SCLEROSIS

Overview

Multiple sclerosis (MS) is a disease that damages the body's central nervous system. There is no cure for MS. But while it is sometimes disabling, it is not fatal.

The central nervous system is composed of the brain and the spinal cord. It controls voluntary movements. When you move, the brain sends a message down the spinal cord to nerves that go throughout the body and to the muscles, telling them what to do. The nerves send reports back to the brain about how you are moving and what you are feeling.

A protective substance called myelin covers the nerves in the brain and spinal cord. It works like the insulating cover on an electric wire, enabling electric impulses to travel to and from the brain.

Multiple sclerosis causes the body to attack its own myelin, creating hard scar tissue on the damaged myelin and sometimes severing the nerve fiber itself. These damaged or destroyed areas interrupt the nerve impulses in their travels. The messages from brain to body and back again can get lost or distorted by these bumps in the road. The body may not work like it is supposed to because of lost or garbled messages.

The term sclerosis in the name of this disease refers to the scar formation, and multiple refers to the many areas of the central nervous system that are damaged.

How Does MS Affect the Body?

Some common signs and symptoms of MS:

- Weakness
- Numbness and tingling
- Stiffness
- Tremors
- Difficulty walking
- Visual problems
- Speech problems (slurred or slow)
- Swallowing problems
- Pain (in face, body, legs and arms)

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- Bowel and bladder problems
- Sexual difficulties
- Fatigue
- Depression
- Difficulty remembering things
- Difficulty solving problems

What Happens to People With MS?

Multiple sclerosis is very unpredictable, and it follows a different course and causes different symptoms in every individual. Not knowing what will happen is very frustrating for the person with MS.

Many people with MS do well over their lifetime and do not need much help. Others become disabled and may need home health, assisted living or skilled nursing care.

Usually, people with MS develop symptoms that may last a few days or several months, after which the symptoms may disappear or level off for a while (remission). The symptoms can appear again at any time (exacerbation). Some people may completely recover between exacerbations. Others may never have a remission. Some people continue to get worse, losing more functions with time.

Common Problems in MS

About 90% of people with MS experience fatigue. It often interferes with the ability to perform routine daily activities. The body is working extra hard because nerve impulses have to struggle past scar tissue to get to their destination, creating overwhelming fatigue that can happen at any time, without warning or apparent cause. In addition, it takes more effort to do things because of other symptoms of MS, such as difficult movement or depression. Some things that may worsen MS fatigue are:

- Heat, fever, increased body temperature
- Stress
- Excessive physical activity

Problems with movement are often disabling and cause the individual with MS to need the help of others. When a person can't control arm or leg movements, he or she will have difficulty doing everyday activities.

When messages from the brain to the limbs are interrupted or distorted, many different things can happen. The muscles might tighten up or spasm, or the hands may have tremors. Or, a message to move might get

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through only partially or not at all, resulting in weakness, paralysis, clumsiness or falling. When the muscles around the mouth or throat are affected, the individual may have difficulty speaking or swallowing.

Stress, fatigue and heat may temporarily worsen MS symptoms. Hot weather, or hot bath or shower water, may make it difficult for the person to see or move for a while.

Problems with sensation include difficulties with any of the five senses: hearing, sight, smell, taste and touch. When messages from the nerves in the body cannot be properly sent back to the brain, the person may not be able to feel normal sensations, such as temperature, pressure or position. The individual with MS might have poor vision, double vision or see “holes” in the field of vision. Hearing, taste and smell are rarely affected.

The individual with MS might have feelings of numbness, burning or tingling. A person may feel pain even when there is no injury. Muscle spasms can be very painful, as can the stabbing pains MS sufferers sometimes experience in the face. Injuries can result from sensory problems. For example, if someone with MS can't feel that bath water is too hot, he or she might get burned. Falls or foot damage can occur if the person cannot feel the ground under his or her feet.

Cognitive changes affect some, though not all, people with MS. Thought processes may be slowed. Common problems are:

- Difficulty remembering things
- Difficulty solving problems, leading to poor judgment
- Language problems, such as being unable to think of the right word
- Difficulty in concentrating or focusing

People who have these problems are not crazy or lazy. The symptoms may come and go and may get worse with depression, anxiety, fatigue, or stress.

Emotional discomfort, such as depression or anxiety, is a serious difficulty in MS. Many people with MS become depressed if they can't do things for themselves. Signs of depression include social withdrawal, altered sleeping or eating habits, and talk of hopeless feelings or suicide. Always report these to a supervisor.

Bowel and bladder problems, such as constipation, diarrhea, bowel incontinence, urinary incontinence and urinary retention (unable to void) are common in people with MS because of the disrupted communication between the brain and the body.

Helping People With MS

There are many different ways to assist people with MS and to alleviate discomfort. Because MS symptoms are different in every person, guidance on how to help is listed by symptom.

Managing fatigue

The following guidelines can help people with MS manage their fatigue and maximize their activities:

- People with MS should stay in a comfortably cool, well-ventilated room
- Bath or shower water should not be too hot
- Activities and tasks should be planned ahead and spread throughout the day
- Activities and tasks should be paced, with periods of rest during the day
- Focus on activities and tasks that must be done or have the highest priority

When helping someone with MS, remember that fatigue has a big impact on an individual's ability to carry out activities of daily living. A person might be able to transfer with assistance in the morning but be so fatigued or weak by evening that he or she must be lifted. Even someone who can normally do certain things might need your help occasionally.

Assisting with movement and muscle problems

Because people with MS may have problems with movement, be sure to:

- Encourage as much independence in self-care as possible.
- Keep mobility aids such as walkers, canes, crutches, scooters and wheelchairs maintained and ensure they are used properly and safely.
- Keep the physical environment as safe and uncluttered as possible.
- Respect privacy for hygiene and dressing. Ask the person what he or she would like to wear.
- Remember that hot bath or shower water, or hot weather, may temporarily worsen symptoms.
- Help the individual stay well groomed. Put a magnifying mirror at eye level and style hair or assist with makeup as requested.
- Check that braces or splints worn by someone to support a leg or arm do not cause pressure sores or skin irritation.
- Follow the therapist's instructions if the individual with MS needs to have his or her arms and legs moved through a range of exercises and you are responsible for helping.

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- Turn the person and ensure he or she changes positions at least every two hours to prevent pressure sores and skin breakdown if that person cannot move independently in bed or a chair must be used.
- Keep assistive devices within reach.
- Provide a straw, cut up tough foods and open food containers at meals.
- Be very careful with hot food or liquids if the person's ability to feel is impaired.
- If you are feeding a person, ask what he or she would like to eat next.
- Allow plenty of time for chewing and swallowing. Watch for swallowing problems.
- Supervise the person constantly during eating to reduce the risk of choking. Also:
 - Have the person sit up while eating, and encourage the individual to eat slowly.
 - Reduce distractions by turning off the TV or eliminating other noises.
 - Be sure the food is the proper consistency for their needs.
- Immediately report any choking or coughing problems associated with drinking or eating.

Relieving painful and abnormal sensations

To help a person who might be in pain or experience abnormal sensations, remember that wearing a glove or stocking may ease the burning or tingling in a hand or leg and that range-of-motion and stretching exercises may ease the discomfort caused by immobility.

Managing cognitive and emotional difficulties

The following are some strategies that can help manage cognitive problems:

- Organize the environment so that items used regularly remain in familiar places.
- Develop a consistent daily routine.
- Limit activities for a short time period.
- Conduct conversations in quiet places to minimize distractions.
- Repeat information and write down important points.
- Follow verbal instructions with written backup and visual aids when possible.
- Introduce change slowly, one step at a time. Work on one task at a time.
- Encourage the person to keep a notebook of important information.
- Provide a quiet environment for activities that require more mental activity.

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Helping people with depression and anxiety

Encourage people who are feeling depressed or anxious to express their feelings. Listen without judging. Help people stay connected to others by phone and letters; support friendships. Assist with hobbies, interests, and activities.

Managing bowel and bladder problems

People with MS often experience issues with bowel and bladder function. The following guidelines can help you assist the person and ease discomfort.

Constipation

Observe how often the person has a bowel movement, and:

- How hard or soft the stool is and how much difficulty the person has passing the stool
- Any complaints of fullness in the stomach area

Report these signs to a supervisor. A high-fiber diet and plenty of fluids help with constipation.

Diarrhea and bowel incontinence

Diarrhea can occur if a person has been constipated and developed an impaction. Irritating foods, such as coffee and some spices, also might cause it. In people with MS, diarrhea might be due to other problems with the muscles and organs. Report diarrhea to your supervisor.

To help a person with bowel incontinence:

- Respond quickly when he or she needs help going to the bathroom.
- Encourage a high-fiber diet and offer fluids often.
- Become familiar with the person's pattern of bowel elimination, and then offer opportunities for bathroom use as often as needed. Assist the individual to the bathroom and give him or her sufficient time and privacy. Be sensitive to the embarrassment the person might feel.
- Use protective undergarments. Change them as soon as they become soiled.
- Wash affected areas with gentle soap and dry thoroughly after each bowel movement.
- Observe skin for moistness, redness or breakdown.

Urinary incontinence

You may need to help the person control the amount and timing of fluid intake. If the person is incontinent at night or during a recreational activity, he or she might want to avoid fluids in the evening or before the

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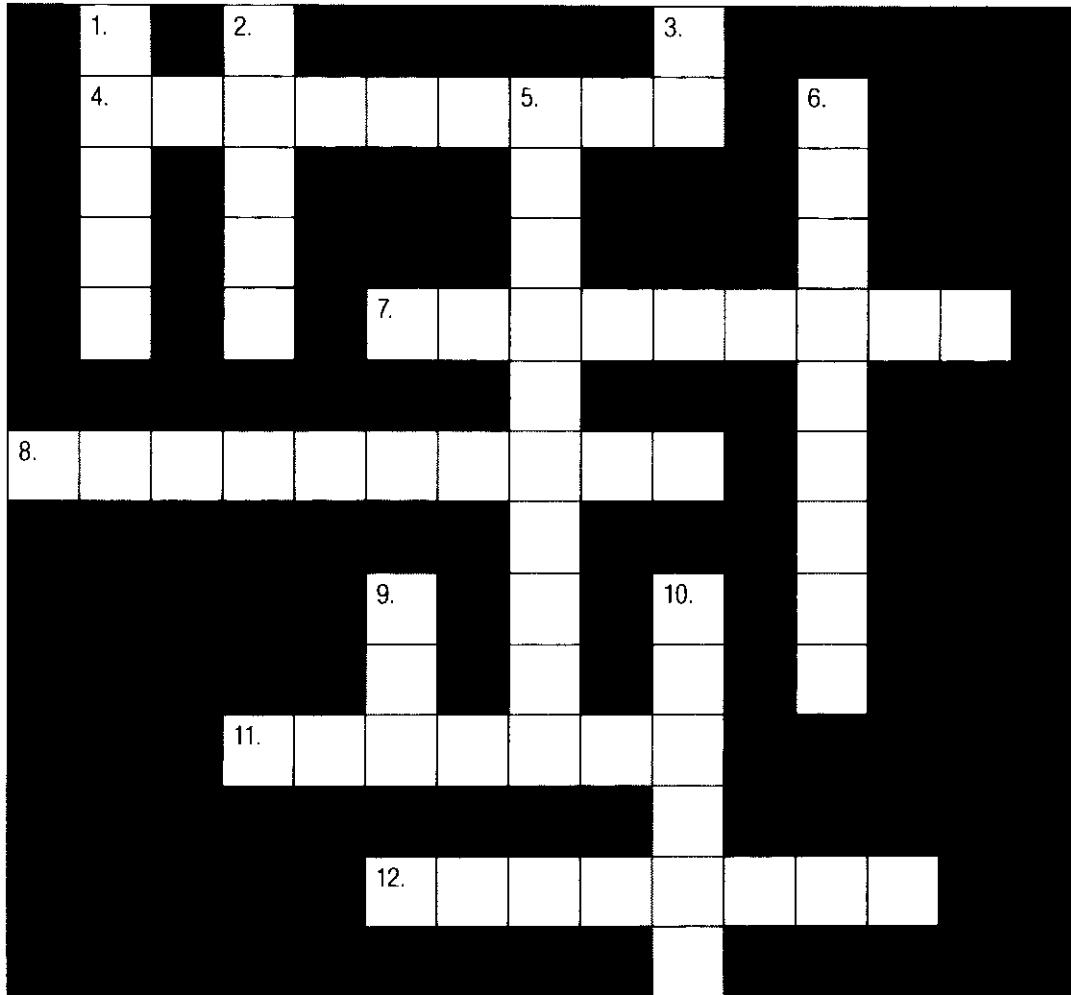
activity. It is important to get at least eight glasses of liquid per day. Always be prompt in answering requests for assistance to get to the bathroom.

Urinary retention

Sometimes people with MS are unable to completely empty urine from the bladder because of nerve damage or medications. To help, monitor voiding patterns so that you will notice if they are experiencing an inability to empty the bladder. Some people with MS insert a catheter into their bladder several times per day to drain the urine. You can help by gathering the necessary supplies. Sometimes a catheter must stay in all the time. Help by keeping the tubing and drainage bag as clean as possible.

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FIGURE 28.1 | MULTIPLE SCLEROSIS CROSSWORD PUZZLE



Across:

- 4. Means the muscles are unable to move.
- 7. Hard scar tissue on the covering of the nerves.
- 8. This connects the brain to the nerves. (two words)
- 11. A symptom experienced by 90% of people with MS.
- 12. Means that many places in the nervous system are affected.

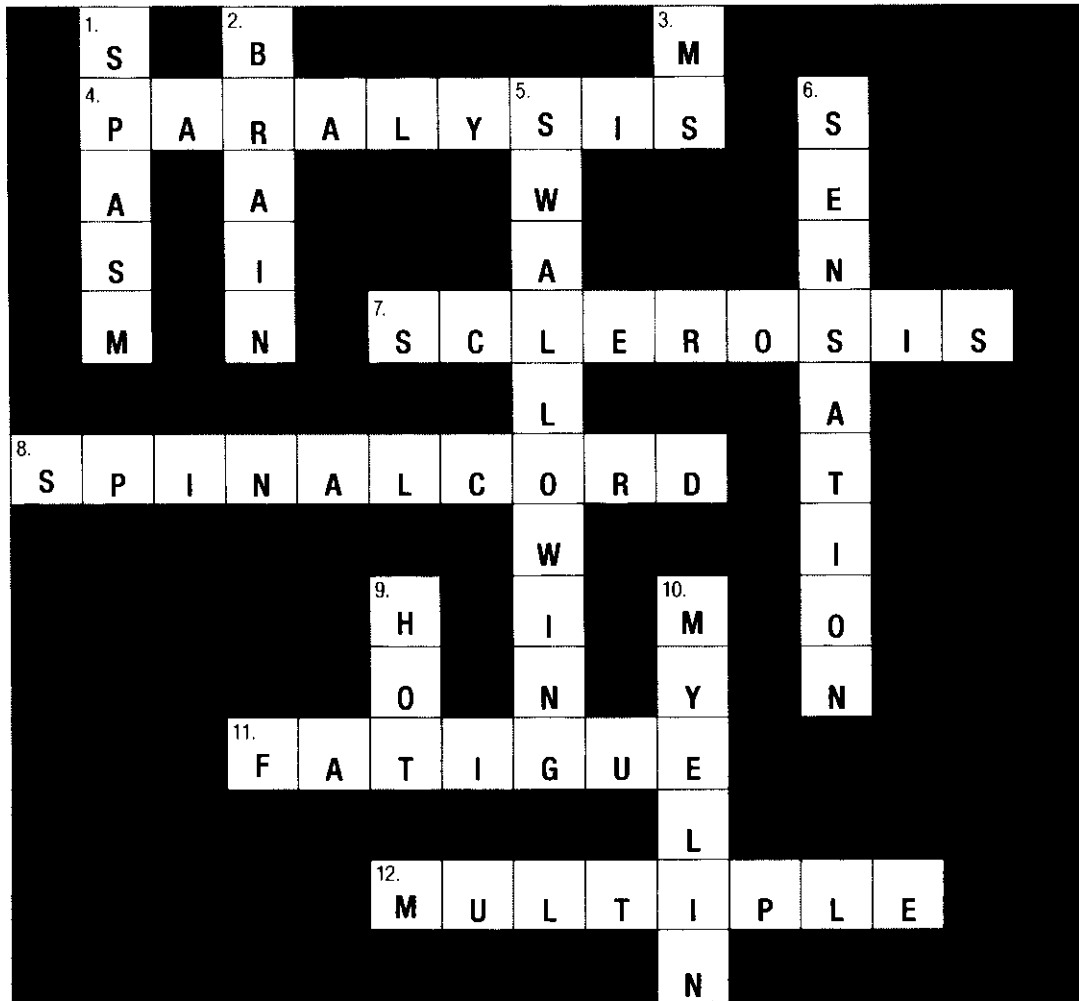
Down:

- 1. What happens when a muscle tightens up and can't relax.

- 2. This sends and receives messages to and from the nerves and muscles.
- 3. Initials that stand for a disease of the central nervous system.
- 5. When people with MS have trouble with this, it can be difficult to eat.
- 6. Feeling or awareness of conditions within or without the body.
- 9. If bath water is at this temperature, it can worsen MS symptoms temporarily.
- 10. The insulating sheath that covers the nerves.

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FIGURE 28.2 | MULTIPLE SCLEROSIS CROSSWORD PUZZLE ANSWER KEY



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FIGURE 28.3 | SAMPLE DIAGRAM OF THE NERVOUS SYSTEM

