

UPGRADE to the Growing Bundle

CLICK HERE



Save 75%!

- ✓ **Covers ALL Science Topics**
- ✓ **Daily Work or as a Sub Plan**

6th, 7th, 8th Grade Reading Mega Bundle

Reading Comprehension Passage & Questions

- ✓ Over 115 Readings! Covers all Science Topics
- ✓ No Prep, Ready-to-Use Resource in Google and Office Format
- ✓ Includes Comprehension and Extension Questions



Multiple Sclerosis

What is Multiple Sclerosis?

Multiple sclerosis (MS) is a **central nervous system**¹ (CNS) disorder that makes moving difficult (sometimes impossible). It can also affect the ability to think clearly in some people. Symptoms of MS usually get worse over



Some people with MS need to use a walker.

time, but it affects each patient differently. In fact, two-thirds of people who have MS don't become **paralyzed**² and never lose the ability to walk, but they may need help like a wheelchair, cane, or walker. In this article, we will take a look at the symptoms of the disease and how it works, as well as ways to treat it.

Did You Know?

Almost 2.3 million people around the world have MS.

What are the Symptoms?

Ecobottle Sample

TWTF

This section has been removed

How Does It Happen?

It isn't yet known exactly how people get MS, but scientists have learned how the disease works once someone has it.

¹ **Central nervous system:** the body system made of nerves that control the body's activities; made up of the brain and spinal cord

² **Paralyzed:** unable to move

When someone has MS, their immune system attacks healthy tissue in the CNS. The immune system's attack on the CNS leads to swelling that damages **myelin**³. Myelin makes up the **myelin sheath**⁴, a protective layer that wraps around **axons**⁵ (nerve cells that send **neurotransmitters**⁶ – signals – to **dendrites**⁷ – nerve cells that receive signals). The myelin sheath helps neurotransmitters travel more easily through axons. Damage to the myelin sheath is not good for health, and can lead to many MS symptoms.



Ecobottle Sample

TWTF

This section has been removed

Treatment

There isn't a cure for MS, but there are medicines and treatments that may help. Most medications decrease swelling in the central nervous system and make the symptoms less uncomfortable and less frequent. These medications may slow the disease down. Taking vitamin D and exercising are natural ways to help reduce symptoms of MS while also taking medicine.



Getting both exercise and vitamin D are recommended to help reduce MS symptoms.

People with MS now live longer than they used to. However, they still live about 7 years less, on average, than healthy people. With more research, scientists hope to find a cure.

³ **Myelin:** a fatty substance

⁴ **Myelin sheath:** a protective layer of myelin that surrounds axons and helps nerve cells communicate faster

⁵ **Axons:** nerve cells that send neurotransmitters

⁶ **Neurotransmitters:** signals sent throughout the central nervous system to control feeling and movement

⁷ **Dendrites:** nerve cells that receive neurotransmitters

Reading Comprehension Questions:

1. How many people suffer from multiple sclerosis worldwide?
2. List
3. What happens inside the body when someone has MS?
4. What

Extension Questions:

5. Perform some research online and choose one treatment currently used for MS. How does it work and how good is it at treating the disease?
6. Find a

Ecobottle Sample



This section has been removed

References

- Charand, K. X. (n.d.) "Nerve Cell." *Hyper Physics, Georgia State University*. Retrieved August 17th, 2016 from <http://hyperphysics.phy-astr.gsu.edu/hbase/biology/nervecell.html>
- Mayo Clinic Staff (2015). "Multiple Sclerosis". *Mayo Clinic*. Retrieved August 17th, 2016 from <http://www.mayoclinic.org/diseases-conditions/multiple-sclerosis/symptoms-causes/dxc-20131884>
- Morell, P. and Richard H Quarles (1999) "The Myelin Sheath." Basic Neurochemistry: Molecular, Cellular and Medical Aspects. 6th edition. *American Society for Neurochemistry, Neuroscience Center, University of North Carolina*. Retrieved August 17th, 2016 from <http://www.ncbi.nlm.nih.gov/books/NBK27954/>
- "Central Nervous System." (n.d.) *Merriam Webster Dictionary*. Retrieved August 17th, 2016 from <http://www.merriam-webster.com/dictionary/central%20nervous%20system>
- "Multiple Sclerosis FAQs." (n.d.) *National Multiple Sclerosis Society*. Retrieved August 17th, 2016 from <http://www.nationalmssociety.org/What-is-MS/MS-FAQ-s>
- "Physiology." (n.d.) *Merriam Webster Dictionary*. Retrieved August 17th, 2016 from <http://www.merriam-webster.com/dictionary/physiology>
- "Who Gets MS?" (n.d.) *National Multiple Sclerosis Society*. Retrieved August 17th, 2016 from <http://www.nationalmssociety.org/What-is-MS/Who-Gets-MS>