



Human Body Systems

Virtual Learning

9-12th PLTW[®] HBS

Overview of Neuromuscular Disorders

Reference: PLTW[®] 4.2.6 You've Got Nerve

April 17, 2020



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Lesson: April 17, 2020

Objective/Learning Target:

Students will be able to describe how neurological diseases affect overall muscle function. (*Reference: PLTW[®] 4.2.6 You've Got Nerve*)



Let's Get Started/Warm Up Activities:

Watch Warm Up Videos:

- [Two-Minute Neuroscience: The Neuron](#)
- [Nerve Cells Review: Structure, Function & Types](#)



Lesson/Activity:

Read the following website:

[Amyotrophic Lateral Sclerosis \(ALS\)](#)

Activity #1: In your notebook or on a piece of paper, answer the following after reading information about the neuromuscular disease above:

- What is the cause of the disease?
- How is the disease diagnosed?
- What are the treatments of the disease?
- What is living with the disease like?



Lesson/Activity continued:

Read the following website:

[Multiple Sclerosis \(MS\)](#)

Activity #2: In your notebook or on a piece of paper, answer the following after reading information about the neuromuscular disease above:

- What is the cause of the disease?
- How is the disease diagnosed?
- What are the treatments of the disease?
- What is living with the disease like?



Lesson/Activity continued:

Read the following website:

[Muscular Dystrophy \(MD\)](#)

Activity #3: In your notebook or on a piece of paper, answer the following after reading information about the neuromuscular disease above:

- What is the cause of the disease?
- How is the disease diagnosed?
- What are the treatments of the disease?
- What is living with the disease like?



Lesson/Activity continued:

Read the following website:

[Myopathy](#)

Activity #4: In your notebook or on a piece of paper, answer the following after reading information about the neuromuscular disease above:

- What is the cause of the disease?
- How is the disease diagnosed?
- What are the treatments of the disease?
- What is living with the disease like?



Lesson/Activity Answers:

Activity #1 Answers:

- [Amyotrophic Lateral Sclerosis \(ALS\)](#)

Activity #2 Answers:

- [Multiple Sclerosis \(MS\)](#)

Activity #3 Answers:

- [Muscular Dystrophy \(MD\)](#)

Activity #4 Answers:

- [Myopathy](#)



Practice:

Watch the Video:

[Sandra's Story: An Artist Living with ALS](#)

Practice Activity: Using what you have learned in our previous lesson activity on ALS, answer the following on your piece of paper or in your notebook:

- How did Sandra's ALS symptoms start?
- How did Sandra adapt so that she could still lead a normal life even with ALS?
- Reflection: Is this how you imagined ALS symptoms when you first wrote down information about ALS in the lesson activity? Is it worse or better than you imagined? Explain.



Answer(s):

Practice Activity Answer:

Click [HERE](#) to see the answer.



Additional Practice and/or Resources:

Learn More:

[Neuromuscular Disorders](#)

Read more about how neuromuscular disorders affect the nerves that control voluntary muscles and the nerves that communicate sensory information back to the brain.

[Cardiomyopathy Patient Story: John Hobbs](#)

Watch John's story: The countdown to save a cardiomyopathy patient's life.

[Multiple Sclerosis: Rachael's Story](#)

Watch Rachael's story: Rachael suffered from symptoms that she could not explain, blurry vision, sensory disturbance, numbness on one side of her body, and fatigue. Multiple doctors told her she was fine. She was starting to lose hope.