



Principles of Biomedical Science

Virtual Learning

9-12 / PLTW[®] PBS

April , 27 2020



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Lesson: April 27 2020

Objective/Learning Target:

Students will be able to: Identify, describe, and evaluate if someone may be having a heart attack, and create a plans for recovery. (*Reference: PLTW[®] 4.4.1 Unblocking the Vessels*)



Let's Get Started (Bell Ringer):

Before we start our lesson today, lets start by reading the following articles:

[First Aid for Life: How would you manage a heart attack if you were on you own?](#)

[Heart Foundation: First steps for recovery](#)



Lesson/Activity continued:

First lets look at warning signs of a heart attack, you can start you research with the following article from [heart.org](https://www.heart.org) [Warning Signs of a Heart Attack](#) and from the [MAYO CLINIC: First aid Heart Attack](#). There are many great idea out there go out and also find your own resources. Write down your warning signs in you notebook or on a seperate piece of paper.



Answers:

There are many signs and symptoms leading up to a Heart Attack, According to the American Heart Association, here are 5 major warning signs to get you started:

1. Pain or discomfort in the chest
2. Lightheadedness, nausea, or vomiting
3. Jaw, neck or back pain
4. Discomfort or pain in arm or shoulder
5. Shortness of breath



Lesson/Activity:

Go back to the second article in the bell ringer [Heart Foundation: First steps for recovery](#) and write down in your notebook or on a sheet of paper the six steps outlined to help you recover from a cardiac issue.



Answers:

Six Steps to Cardiac Recovery

1. Starting a routine
2. What you can do
3. Take your medicines
4. See your doctor regularly
5. Care for your wounds
6. Keep up your cardiac rehabilitation



Practice:

Create a brochure for a group of elementary students that would help them identify if their grandparent may be having a heart attack and what they can do to help if ever put in that situation. This should not be scary but helpful and informative, assuring them that they can help in this type of emergency situation. As you have learned early help and treatment creates a better chance for a full recovery. It's style and design are completely up to you be creative and informative, who knows you may just save someone's life.



Answers:

Brochures will vary, but information from their notebooks and separate pieces of paper should be used in the creation of their brochure.



Additional Practice:

How much did you learn? Take a short quiz over signs of a Heart Attack.

[JOHNS HOPKINS MEDICINE: Heart Disease: Do You Know the Warning Signs?](#)

[Heart Disease and Heart Attack Quiz](#)

[Heart Foundation: Heart attack warning signs quiz](#)



Answers:

All Quizzes go over answers once you have completed



Additional Practice:

Additional Resources to Explore:

[Surprising signs of heart attack in women](#)

[Ted-Ed What happens during a heart attack? - Krishna Sudhir](#)