



## Grade 8 Sample Lesson Plan: Unit 7– Heart Disease

### **Description**

Please see attached handout for a lesson submitted by a Virginia teacher

### **Handout**

The next page includes a handout for the lesson.

# Heart Disease

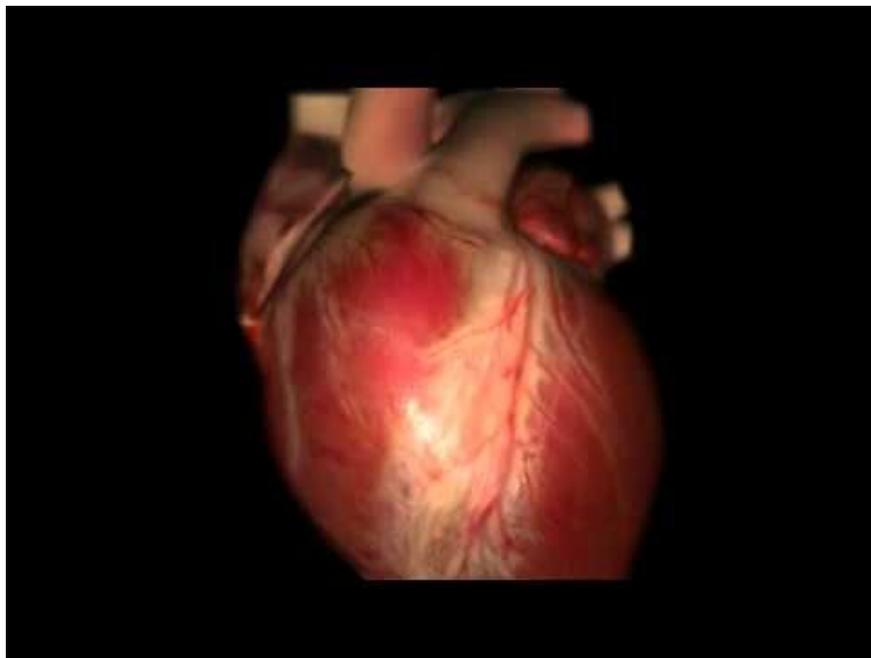
8.3.b Evaluate the physical, mental, and social benefits of physical activity.

8.3.g Develop a strategy to prevent diabetes, heart disease, stroke, and other chronic diseases and conditions.

	Link						
 <p>What is the function of the heart?</p> <p>What is Coronary Artery Disease?</p> <p>What are strategies to prevent heart disease?</p>	<p>A healthy heart is essential to a healthy body. Why? Write 3 facts that you already know about how the heart functions in the boxes.</p> <table border="1"><tbody><tr><td>1.</td><td></td></tr><tr><td>2.</td><td></td></tr><tr><td>3.</td><td></td></tr></tbody></table> <p>You may have learned that the heart is the hardest working organ that keeps the blood moving throughout your body. In this lesson you will have the opportunity to take a deeper look at how the heart functions, potential heart health issues that can arise from unhealthy habits, and develop strategies to prevent heart disease.</p>	1.		2.		3.	
1.							
2.							
3.							

	Explore
	<p>“With each heartbeat, blood is sent throughout our bodies, carrying oxygen and nutrients to every cell. Every day, the approximately 10 pints [more than a gallon] of blood in your body travels many times through about 60,000 miles of blood vessels that branch and cross, linking the cells of our organs and body parts.” –KidsHealth.org</p> <p>Watch the video, How the Heart Works (2:56) to learn about the purpose of the human heart and the vital structures that help the heart pump blood throughout the body. Double click on the image to access the video.</p> <p>Answer the following questions from the video in the boxes.</p>

Source:  
American  
Heart  
Association  
(What is  
Cardiovasc  
ular  
Disease?  
[http://www.heart.org/HEARTORG/Conditions/What-is-Cardiovascular-Disease\\_UCM\\_301852\\_Article.jsp#.WbKGrWeWyUI](http://www.heart.org/HEARTORG/Conditions/What-is-Cardiovascular-Disease_UCM_301852_Article.jsp#.WbKGrWeWyUI)



What is the purpose of the human heart?

There are four chambers in the heart. What is the purpose of the top two, the atria, and the bottom two, the ventricles?

Atria	
Ventricles	

What is the purpose of arteries?

What is the purpose of veins?

What is the role of the coronary arteries?

It is amazing that during one beat (that lub -dub sound) the heart is working to take in blood and supply oxygenated blood to the body. There are many organs and systems that work together to assure that your body is able to function throughout your day. As strong as our hearts may be, we often take them for granted. Lack of exercise, poor diet, smoking, and stress (to name a few), can all have negative effects on our heart.

“Heart and blood vessel disease —also called heart disease —includes

numerous problems, many of which are related to a process called atherosclerosis. Atherosclerosis is a condition that develops when a substance called plaque builds up in the walls of the arteries. This buildup narrows the arteries, making it harder for blood to flow through. If a blood clot forms, it can stop the blood flow. This can cause a heart attack or stroke.”

Heart disease is the leading cause of death among men and women. It is important to understand heart disease and learn ways to prevent heart disease.

Read the CDC article, Heart Disease Facts at <https://www.cdc.gov/heartdisease/facts.htm> and answer the questions.

About how many people die of heart disease every year?

What is the most common type of heart disease, killing over 370,000 people annually?

About how many Americans have a heart attack each year?

Read the CDC article, Coronary Artery Disease, at [https://www.cdc.gov/heartdisease/coronary\\_ad.htm](https://www.cdc.gov/heartdisease/coronary_ad.htm) and answer the questions.

Describe the causes of Coronary Artery Disease (CAD):

What is plaque and how does it affect heart function?

What are risk factors for Coronary Artery Disease (CAD)?

How can a person reduce their risk for CAD?

Read the CDC article, Preventing Heart Disease: Healthy Living Habits at [https://www.cdc.gov/heartdisease/healthy\\_living.htm](https://www.cdc.gov/heartdisease/healthy_living.htm) and answer the question.

What does a healthy lifestyle include?



Source:  
NIH  
National  
Heart,  
Lung, and  
Blood  
Institute  
<https://www.nhlbi.nih.gov/health/health-topics/topics/physical-activity/benefits>

## Explain

Strengthening your heart and living a healthy lifestyle are two keys to avoiding heart disease. When done regularly, moderate - and vigorous-intensity physical activity strengthens your heart muscle. This improves your heart's ability to pump blood to your lungs and throughout your body. As a result, more blood flows to your muscles, and oxygen levels in your blood rise. Capillaries, your body's tiny blood vessels, also widen. This allows them to deliver more oxygen to your body and carry away waste products.



## Apply

Imagine that you are a health care provider. You evaluate many patients each day and notice that your patients experiencing heart disease seem to be getting younger. You decide to help teens and young adult patients with earlier prevention strategies to safeguard themselves from heart disease. Using what you have learned from your readings, choose an activity to develop a strategy to prevent heart disease.

Activity 1: Create a heart disease quiz for patients to take. Look at the CDC Heart Disease Quiz <https://www.cdc.gov/heartdisease/quiz.htm> for ideas. Ensure that your quiz has different questions.

Activity 2: Create a healthy lifestyles checklist for patients to rate their current levels of a healthy lifestyle. Checklist may include items such as amount of daily physical activity.

Activity 3: You volunteer to speak at a middle school to help students understand what heart disease is and what they can do to prevent it. Draft a speech outlining your plan to help middle schoolers avoid this disease.

Activity 4: Your choice, be creative and develop a strategy to prevent heart disease.

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## Reflect

In the beginning of the lesson you were asked to write down facts that you already knew about heart function.

Write 3 new facts that you learned from this lesson about the heart and/or heart disease.

1.	
2.	
3.	

Why is it important to start protecting your heart at your age?

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Healthy heart function is critical to our survival. We don't often think about how our daily activities contribute to our heart health. Safeguarding ourselves from heart disease begins with us making healthy choices in our own lives (choosing not to smoke, eating healthy, and exercising). So get out there and make smart heart decisions today!