**Text-Dependent Questions and Writing Prompt for Complex Text**

**Article Title:** Who is at Risk for Heart Disease?

**Vocabulary Questions:**

1. *Anemia* is a risk factor you can control. Using information from the article, define *anemia*.
2. *Inflammation* is considered an emerging risk factor for heart disease. Using information from the text, define *inflammation.*

**Text Evidence/Content Questions:**

1. Smoking is the most powerful risk factor a person can control in reference to heart disease. Using evidence from the article, how does smoking cause heart disease?
2. High-density lipoprotein cholesterol is considered “good” cholesterol. Using evidence from the text, explain why it is labeled “good.”
3. Metabolic syndrome is a group of risk factors that raises your chances for coronary heart disease. What are at least three risk factors of metabolic syndrome?

**Writing Prompt:**

Your best friend’s grandmother died of a heart attack about 2 months ago and now she is worried about her mother’s health. Using evidence from the article, educate her on the risk factors associated with heart disease so that both of them can make educated, healthy, and proactive decisions.

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Sample Answer Key

**Article Title:** Who is at Risk for Heart Disease?

**Vocabulary Questions:**

1. *Anemia* is a risk factor you can control. Using information from the article, define *anemia*.

*Anemia is a condition in which your blood has a lower than normal number of red blood cells.*

1. *Inflammation* is considered an emerging risk factor for heart disease. Using information from the text, define *inflammation.*

*Inflammation is the body’s response to injury or infection. In this case, the damage to arteries’ inner walls triggers inflammation that encourages plaque growth.*

**Misconceptions/common errors:** *Students may not fully understand what inflammation is on a microscopic level. They should realize that their internal body can be damaged by chemicals in their food. This damage leads to inflammation, which causes redness at the site, swelling, and increased white blood cells to the area. Even though the body will try to repair the damage, continued inflammation creates a hard battle for the body.*

**Text Evidence/Content Questions:**

1. Smoking is the most powerful risk factor a person can control in reference to heart disease. Using evidence from the article, how does smoking cause heart disease?

*According to the text, “Smoking exposes you to carbon monoxide. This chemical robs your blood of oxygen and triggers a buildup of plaque in your arteries.”*

**Misconceptions/common errors:** *Students may try to argue that this only applies to cigarette smoke. E-cigarettes don’t have enough long-term research behind them to prove they are safe. E-cigarettes still give the bloodstream nicotine, which is a stimulant that causes higher blood pressure.*

1. High-density lipoprotein cholesterol is considered “good” cholesterol. Using evidence from the text, explain why it is labeled “good.”

*Good cholesterol helps remove cholesterol from the arteries. HDL’s are like the clean-up crew. Without a good number of HDL, even if a person’s LDL is lower than expected, the risk for coronary heart disease is high.*

1. Metabolic syndrome is a group of risk factors that raises your chances for coronary heart disease. What are at least three risk factors of metabolic syndrome?

*Answers might include:*

* *A large waistline*
* *Higher than normal triglyceride level*
* *A lower than normal HDL level*
* *Higher than normal blood pressure*
* *Higher than normal blood sugar*

**Writing Prompt:**

Your best friend’s grandmother died of a heart attack about 2 months ago and now she is worried about her mother’s health. Using evidence from the article, educate her on the risk factors associated with heart disease so that both of them can make educated, healthy, and proactive decisions.

*Coronary heart disease (CHD) is the number one killer of people in the United States. First, it is important to understand what heart disease is and how it affects the body. Second, there are many risk factors that can be avoided to help decrease the chances of having heart disease. Unfortunately, there are risk factors that individuals can’t control, but being educated about them can help people make informed decisions, especially when working closely with a doctor. Being aware of the risk factors for CHD can help people achieve a healthier lifestyle.*

*To begin, imagine this scenario. Have you ever had a milkshake and gotten a piece of fruit or candy stuck in the straw? If so, you can understand coronary heart disease. It is caused by the development of atherosclerosis. Atherosclerosis causes the artery’s lining to become hardened, stiffened and swollen with fat and calcium deposits. These deposits can block or slow down blood flow, and this can cause a heart attack or stroke. In spite of the fact that this sounds very scary, there are many things people can do to decrease their chances of developing heart disease. Heart disease has many different risk factors, some can be controlled, and some cannot.*

*The risk factors that can be controlled are numerous. It is important for individuals to realize what these risk factors are so that they can live a healthier lifestyle. To start with, don’t smoke, especially if you are a woman. “Smoking is the most powerful risk factor that women can control. Even women who smoke fewer than two cigarettes a day are at increased risk for heart disease.” Another risk factor to consider is blood cholesterol and triglyceride levels. “A triglyceride level greater than 150mg/dL, a total cholesterol over 200mg/dL, a LDL (bad) cholesterol over 100mg/dL, or an HDL (good) cholesterol below 50mg/dL greatly increases a woman’s chance of heart disease.” The amount of cholesterol in the blood can increase the amount of plaque forming in the blood vessels, which can cause a blockage. In addition, paying attention to physical shape is very important. Obesity and lack of physical activity* *are risk factors that can be controlled to reduce the chances of heart disease. In addition, “Women who carry much of their fat around the waist are at the greatest risk for heart disease.” Furthermore, individuals should know and track their body mass index. A BMI greater than 24.9 and a waist measurement greater than 35 inches can lead to increased risk for CHD. Other important risk factors to be aware of include stress and depression. Stress can cause high blood pressure, as well as cause people to smoke or overeat foods high in fat and sugar, all of which increase the chances of heart disease. Depression is a risk factor that most people don’t even think about, yet the National Institutes of Health states that “people who are depressed are two to three times more likely to develop CHD than people who are not.” These are just some of the many risk factors that individuals can control to help decrease their risk for CHD.*

*On the other hand, there are risk factors that cannot be controlled, but it helps to be educated about them and work with a doctor to make informed decisions about a personalized health care plan. For instance, family history is important to research and share with one’s doctor. As one example, the risk for CHD increases if one’s brother or father was diagnosed with CHD before 55 years of age, or if one’s mother or a sister was diagnosed before 65 years of age. As another example, if a woman goes through an early menopause or had her ovaries removed early, she is twice as likely to develop heart disease. If an individual has any of these risk factors, he or she should share the information with a doctor so a proactive health care plan can be developed.*

*In sum, heart disease is real health concern for everyone because it is the number one cause of death in the United States. Ultimately, people do have control over many of the risk factors. As stated above, people that don’t smoke, keep their cholesterol at normal levels, have a healthy BMI and are active have a reduced risk of developing heart disease. Even though people cannot control their family history, being educated about it and sharing that information with a doctor is extremely important. Together, both doctor and patient can make a healthy plan for the future.*