What Increases the Risk of Cardiovascular Disease? Lesson Idea

Objectives

- Identify the major and contributing risk factors for cardiovascular disease.
- Distinguish between controllable and noncontrollable risk factors.
- Recognize high blood pressure as one controllable risk factor for cardiovascular disease.
- State the factors contributing to high blood pressure and methods to control it.

Materials

- Chart paper, markers, Your Heart Works for You Activity Sheet

Explore

1. Discuss people students have known who have had a heart attack, a stroke, or high blood pressure. What age are most of the people you know who have had heart or circulatory problems? (Middle-aged or older) What are some causes of heart disease in middle-aged and older people? (Blocked coronary arteries; faults in the heart’s electrical system that cause irregular heartbeats) What are some causes of heart diseases in young people? (Congenital heart defects; defects caused by the mother’s use of tobacco, alcohol, or drugs during pregnancy; untreated strep infections leading to rheumatic fever; other viral or bacterial infections that affect the heart)

2. Discuss diseases that people can contract and the degree to which these diseases can be controlled. What are some illnesses that we are able to prevent entirely? (Diseases for which there are vaccines, such as measles, mumps, polio, diphtheria and tetanus) What are some illnesses over which we have some control through our behavior? (Viral diseases such as colds, flu and AIDS) On chart paper, make a list titled “Diseases We Can Control.” Have students add diseases to the list. What about high blood pressure, strokes and heart attacks? Encourage discussion, leading students to recognize that there are risk factors for heart and artery problems, that is, factors that can increase a person’s chances of developing these problems. Some risk factors, such as age, sex and heredity, can’t be controlled. But some risk factors can be controlled.

   According to the article, what can people do to help prevent heart disease? (Don’t smoke, eat a diet low in fats and cholesterol, watch their blood pressure, exercise regularly.) Point out that people can modify, treat or control these risk factors by changing their lifestyle or taking medicine: exposure to tobacco smoke, high blood cholesterol levels, high blood pressure and physical inactivity, obesity and diabetes. If people reduce these risk factors, they reduce their risk of coronary heart disease and stroke. Most young people don’t worry about heart problems. But what habits can you adopt now to reduce your risk of heart disease?
   Record students’ responses, such as the following: Eat foods that are low in saturated fats and cholesterol; get plenty of physical activity; maintain healthy weight; don’t smoke.

3. Point out that high blood pressure is one of the controllable risk factors for heart disease. Ask students what they know about high blood pressure. What is another word for high blood pressure? (Hypertension) On a sheet of chart paper, write the heading “High Blood Pressure” and two column headings, “What Contributes to It?” and “Ways To Control It.” Write students’ responses to the following questions: What are some factors that contribute to high blood pressure? (Being overweight and too much salt in the diet) What are some ways to control high blood pressure? (Eat a healthful, low-saturated-fat, low-salt diet; get regular physical activity.)

   Help students get their blood pressure measured. This may be done in several ways:

   - Invite the school nurse to visit the classroom, demonstrate how blood pressure is measured and explain what the results mean. The nurse can then take students’ blood pressure.
   - Many pharmacies have blood pressure equipment. Students may visit one with an adult to take and record their own blood pressure.
   - Students may be able to find out their blood pressure from their most recent physical exam.
Students may have family members or neighbors who have the necessary equipment and know how to take their blood pressure.

When students have recorded their blood pressure, help them identify the systolic pressure (the first number, which tells the amount of pressure of the blood on the arteries when the heart beats) and the diastolic pressure (the second number, which tells the amount of pressure when the heart rests). The average measurement for this age group is 100/60.

4. Ask students to complete Your Heart Works For You Activity Sheet to test their knowledge of how the heart works and what the risk factors are for heart disease.