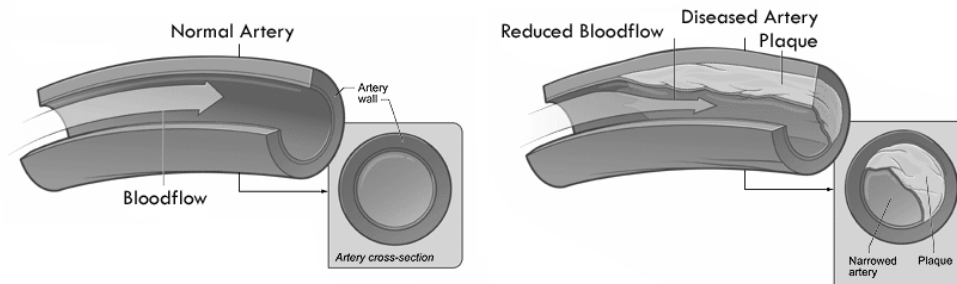


CARDIOVASCULAR HEALTH

Cardiovascular health is important to all people. In the United States and Canada, cardiovascular disease is the number one cause of death. Diseases of the cardiovascular system include **atherosclerosis** and **hypertension**.

1. Atherosclerosis

Atherosclerosis is a condition in which the artery wall thickens due to the build-up of fatty materials called **plaques**. One of these materials is a waxy, fat-like substance called **cholesterol**. Atherosclerosis slows down the flow of blood in the affected arteries.



If

atherosclerosis develops in the coronary arteries that supply the heart, it is called **coronary artery disease** (CAD). When this happens, the heart muscle receives less blood, which may lead to a heart attack. A **heart attack** occurs when the blood flow to a part of the heart muscle becomes totally blocked. Heart muscle cells die in that part of the heart because they do not receive blood. This permanently damages and weakens the heart.

Treatment and prevention of mild atherosclerosis usually includes a low-fat diet and a regular exercise. Medication that lowers the levels of cholesterol and fats in the blood may also help. People with severe atherosclerosis may need surgery to unclog blocked arteries.

2. Hypertension

Hypertension is a disorder in which a person's blood pressure is consistently higher than normal. It is also simply called "high blood pressure". High blood pressure forces the heart to work harder and also damages the walls of blood vessels over time. Hypertension is sometimes called the "silent killer" because people often have no symptoms to warn them.

Hypertension is closely linked to atherosclerosis. As the arteries narrow due to atherosclerosis, blood pressure increases, much like squeezing a garden hose makes the water come out with greater force. Other factors that increase the risk of hypertension are being overweight and not getting enough exercise.

For mild hypertension, treatment usually begins with regular exercise and a healthy diet. People with hypertension need to reduce their intake of salty foods, since salt increases blood pressure. For some people, medication is necessary.

To maintain healthy hearts, people should exercise regularly, eat a healthy diet low in saturated fats, trans fats, cholesterol and salt, and avoid smoking. Exercise strengthens the heart and also prevents atherosclerosis. Avoiding fatty foods prevents the formation of fatty deposits on artery walls. Smokers are more than twice more likely to have a heart attack than non-smokers.

Name: _____

Class: _____

Date: _____

REVIEW QUESTIONS - CARDIOVASCULAR HEALTH

1. What is atherosclerosis?

2. What is cholesterol?

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3. What is hypertension? What is frequently named?

4. Give 2 reasons why hypertension is a serious problem.

5. What can be done to treat hypertension?

6. To maintain cardiovascular health, people should eat a diet low in these 3 substances:

- a. _____
- b. _____
- c. _____

7. In the table below, explain why each behaviour is important for cardiovascular health.

Behaviour	Why It Is Important
Regular exercise	
Eating healthy foods	
Not smoking	

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2. What is cholesterol?

One of these materials is a waxy, fat-like substance called **cholesterol**.

3. What is hypertension? What is frequently named?

Hypertension is a disorder in which a person's blood pressure is consistently higher than normal. It is also simply called "high blood pressure".

4. Give 2 reasons why hypertension is a serious problem.

High blood pressure forces the heart to work harder and also damages the walls of blood vessels over time. Hypertension is sometimes called the "silent killer" because people often have no symptoms to warn them.

5. What can be done to treat hypertension?

For mild hypertension, treatment usually begins with regular exercise and a healthy diet. People with hypertension need to reduce their intake of salty foods, since salt increases blood pressure. For some people, medication is necessary.

6. To maintain cardiovascular health, people should eat a diet low in these 3 substances:

- a. Saturated fats (+ trans fats)
- b. Cholesterol
- c. Salt

7. In the table below, explain why each behaviour is important for cardiovascular health.

Behaviour	Why It Is Important
Regular exercise	Exercise strengthens the heart and also prevents atherosclerosis.
Eating healthy foods	Avoiding fatty foods prevents the formation of fatty deposits on artery walls.
Not smoking	Smokers are more than twice more likely to have a heart attack than non-smokers.