



**A Gift for New
Heart and Stroke
Foundation
Volunteers**

Heart Health Handbook



**HEART &
STROKE
FOUNDATION
OF BC & YUKON**

Finding answers. For life.

Heart Health Handbook

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The following readings and activities are designed to help you enjoy your experience as a volunteer.

As a Heart and Stroke Foundation volunteer you will become a role model for a heart healthy lifestyle and a resource for the Heart and Stroke Foundation of BC & Yukon in your community. It is important that leaders like you are aware of **your own heart health** and can encourage others in your community to lead a healthy lifestyle.

keep the beat
VOLUNTEER

Getting Ready - cont'd

Heart disease and stroke are the leading causes of death in Canada. The Heart and Stroke Foundation of BC & Yukon is committed to increasing heart health awareness and to reducing the burden of heart disease and stroke in Canada.

This Heart Health handbook will provide information on cardiovascular function, discuss some abnormal conditions, and examine risk factors that may increase an individual's chance of developing heart disease.

We'll also discuss what to do if you are ever in a situation where someone is having a heart attack or stroke. Throughout the handbook there will be questions which will help you assess your risk factors, reinforce important concepts, or ask you to reflect on certain issues.



- Indicates questions or reflections for you to consider.



- Reveals the answer.

The handbook will take about three hours to complete. You may choose to complete it in one sitting or work through it in small pieces.

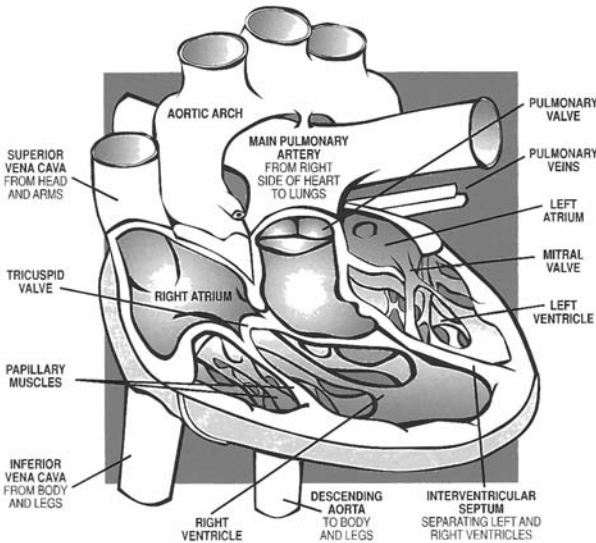
Now, let's get started with a review of heart function, heart disease and, then brain function and stroke. The handbook finishes with a review of factors that may increase an individual's chance of having heart disease or stroke and how you can improve your lifestyle to reduce the risk for you and your family.

By the end of this section you will be able to:

- Describe how the heart functions and list common forms of heart disease.
- Outline the symptoms and warning signs of a heart attack and stroke.
- Describe what to do if someone around you has a heart attack or stroke.

All About the Heart

First we need to understand more about how the circulatory system works. (Rest easy, we won't be asking you to label a heart diagram).



The heart is a strong, muscular pump a little larger than your fist. It is part of the body's circulatory system, the network of blood vessels and body organs, which includes the heart, the lungs, the arteries, veins, and capillaries.

Every cell in the body works to keep us alive. To do their work, cells require oxygen for energy, received from the lungs when we breathe in (inhale). When the cell has completed its work, waste products are produced and removed from the body when we breathe out (exhale). The oxygen is carried to the cells by the arteries and waste products in the blood are returned to the heart by the veins. The heart is the pump that moves the blood around the body. It receives its oxygen supply through the coronary arteries. The heart has its own electrical system that regulates the heart rate, to increase when we exercise or slow down when we sleep.

All About the Heart - cont'd

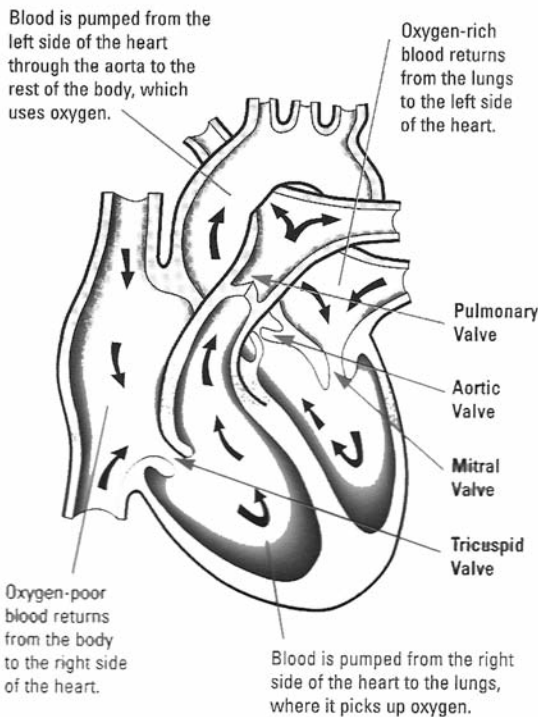
So the heart is responsible for:

- a. Pumping blood through the circulatory system.
- b. Filtering blood to remove wastes.
- c. Re-directing un-oxygenated blood to the lungs.
- d. Generating love.



Correct answer: both a) and c).

The heart pumps blood through the cardiovascular system and re-directs un-oxygenated blood to the lungs, so it can be re-oxygenated and used again. Blood is filtered by the kidney, liver and lungs, not the heart, so b) is wrong, and your emotions come from your brain, even though we use terms like heartache.



What is Heart Disease?

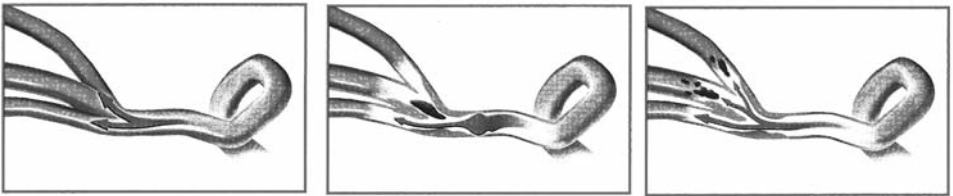
The term “heart disease” defines many different disorders of the heart. The type of heart disease a person develops and how it affects their lifestyle will depend on whether the problem is related to oxygen supply to the heart muscle, coronary artery disease, electrical abnormalities or an arrhythmia, or structural problems such as valve malfunction or a weakened heart muscle.

Some common heart problems include:

- **Coronary artery or ischemic heart disease:**
The coronary arteries supplying oxygen rich blood to the heart muscle become narrowed with atherosclerotic plaque. If there is intermittent reduced blood flow it is called angina. If there is a total lack of blood flow then a portion of the heart muscle will die and this is called a heart attack or myocardial infarction.
- **Arrhythmias:**
The electrical system of the heart which controls the heart rhythm or beat is altered. A common arrhythmia is atrial fibrillation.
- **Valve disorders:**
One or more of the heart valves does not function properly.
- **Heart muscle disease:**
The heart muscle itself can become diseased (for example, myocarditis or congestive heart failure).
- **Congenital Heart Disease:**
These are heart conditions that are present at birth and are primarily related to heart structure abnormalities. They may require surgery to correct.

Coronary Artery Disease (CAD)

CAD or Ischemic Heart Disease (IHD) is the most common cause of heart disease. It develops as a result of plaques or collections of materials in the coronary arteries. This process may occur in any artery of the body. As the plaque grows over time, it begins to narrow the diameter of the coronary artery thus reducing the flow of oxygenated blood to the heart muscle. When the plaque causes a temporary reduction in blood flow to the heart muscle it may cause **angina**. If the coronary becomes totally obstructed either from a plaque rupture that causes a blood clot to form or if the plaque grows to completely obstruct the coronary artery the consequence is the same. When no oxygenated blood reaches a part of the heart muscle, that part of the heart muscle will die. Death of heart muscle is called **myocardial infarction** or heart attack.



Over 90% of heart attacks are caused by a blood clot in a coronary artery. Heart attacks can also be triggered by a severe contraction or spasm in one of the coronary arteries. When this happens, the artery narrows and blood flow to part of the heart muscle decreases or even stops.

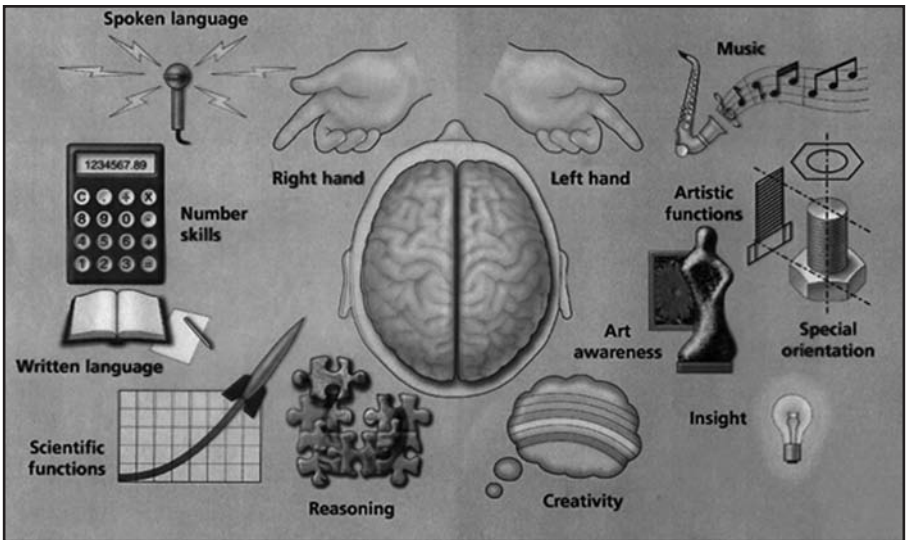
A common complication of heart attack, especially within the first few hours from the onset of symptoms, is cardiac arrest. Cardiac arrest is when the breathing and pumping of the heart stop. Heart attack may cause cardiac arrest, but a heart attack and cardiac arrest are not the same.

All About the Brain

The brain sits in the skull at the top of the spinal cord and is about the size and shape of your two fists pressed together at the palms and looks like a soft walnut. It is divided into regions that control various movement and sensory functions. The largest part of the brain is the cerebrum. The cerebrum is divided into four lobes, named after the anatomical area they represent. Each lobe has specific functions related to motor activities, sensory activities, speech, language, hearing, memory and information to interpret visual messages.

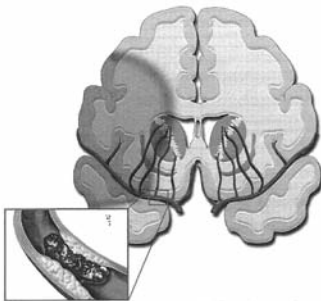
LEFT BRAIN

RIGHT BRAIN

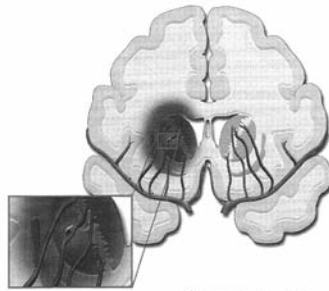


Strokes: What they are and Why they occur

The brain receives its supply of oxygenated blood from the carotid and vertebral arteries. When oxygenated blood flow is interrupted to the brain a **stroke** or **cerebrovascular accident (CVA)** results. If it is a temporary interruption it is called a **transient ischemic attack or TIA**. If there is a lack of oxygen reaching the brain cells and cells die it is a **stroke or CVA**. There are two types of stroke, ischemic or hemorrhagic. An ischemic stroke is a result in blockage of blood flow; where a hemorrhagic stroke is the result of a blood vessel rupture, which causes bleeding into the brain. The result is the same, either cause loss of brain function or a stroke. The symptoms that a person experiencing a stroke will exhibit will depend on the area of the brain affected. A stroke is a sudden loss of brain function.



Ischemic stroke



Hemorrhagic stroke

A stroke may affect your:

- Ability to move and coordinate movement.
- Ability to feel or touch.
- Temperature, pain and movement.
- Ability to see or to interpret what you see.
- Ability to think, remember, understand, plan, reason or problem-solve.
- Ability to communicate (speaking and understanding speech, as well as reading, writing and the ability to do mathematics).
- Personality.
- Emotions.
- Behaviour.

5 Minute Quiz



Now it's time to put your heart disease and stroke knowledge to the test. Take the following quiz to see how much you absorbed in this preparation exercise. Try not to look back at your notes too much.

1. The heart is:
 - a. A muscle we use to filter waste from the blood.
 - b. A muscle that is part of the body's circulatory system.
 - c. An organ that controls emotions.
 - d. None of the above.
2. Coronary artery disease is when the coronary arteries supplying blood to the heart become narrowed with atherosclerotic plaque.
 - a. True.
 - b. False.
3. A heart attack occurs when:
 - a. Blood supply to part of the heart muscle is obstructed.
 - b. Blood supply to the brain is stopped.
 - c. A contraction or spasm stops blood flow in a coronary artery.
 - d. Both a and c.
4. Atherosclerosis is defined as:
 - a. A spasm in a cerebral artery.
 - b. The build up of plaque on artery wall.
 - c. A contraction or spasm in a coronary artery.
 - d. Both a and c.
5. A hemorrhagic stroke causes an interruption of blood flow to the brain.
 - a. True.
 - b. False.
6. A stroke can affect your:
 - a. Ability to move and coordinate movement.
 - b. Ability to see or to interpret what you see.
 - c. Ability to communicate.
 - d. All of the above.

5 Minute Quiz - cont'd

Try these Bonus Point questions!

7. Myth: Breast cancer is a "woman's disease". Heart disease is a "man's disease".

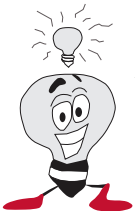
Reality: Out of every 10 female deaths in Canada, _____ are caused by heart disease and stroke. The number that belongs in the space is:

a.1, b.2, c.3, d.4

8. Myth: Women's heart attack symptoms are the same as men's.

Reality: Women and men experience different heart attack symptoms. Can you identify the symptoms that a woman might experience when having a heart attack? Select the answers that apply:

- a. Sharp chest pain.
- b. Vague chest tightness, pain or a crushing radiating chest pain.
- c. Unusual pain that spreads down one or both arms.
- d. Shortness of breath, paleness, sweating or weakness.
- e. Heaviness, pressure or squeezing that begins in the center of the chest and spreads to the neck, jaw.
- f. Nausea, vomiting and/or indigestion.
- g. Feeling extreme anxiety, fear and/or denial.
- h. Persistent chest discomfort or pain.
- i. Lightheadedness.
- j. Intermittent chest discomfort.
- k. All of the above.



Answers:

1-b; 2-a; 3-d; 4-b; 5-b; 6-d; 7-d; 8-k.

Signals for Action for a Heart Attack or Stroke

Now that you know more about heart disease and stroke, let's learn more about the signals for action for a person experiencing a heart attack or stroke.

When you have completed this section, you will be able to:

- List the signals for actions for a heart attack and stroke.
- Describe the difference between a heart attack and a cardiac arrest.
- Describe the emergency procedures for a person in cardiac arrest.

Heart Attack



List three symptoms you think a person experiencing a heart attack might have:

- 1.
- 2.
- 3.

The following are the symptoms a person may experience when having a heart attack. Are any of these in your list? A person does not need to exhibit all of these symptoms to have a heart attack, it may be one major symptom or a combination of the symptoms listed below.

Pain/Discomfort



- Sudden discomfort or pain that does not go away with rest.
- Discomfort that may be in the chest, neck, jaw, shoulder, arms or back.
- Discomfort that may be described as burning, squeezing, heaviness, tightness or pressure.
- In women, pain may be more vague or be intermittent.
- Classical discomfort is in the center of the chest, going down the left arm, and into the jaw.
- The discomfort is not relieved with rest, change in position, or by taking antacids.
- The discomfort usually lasts for 30 minutes or more.

Signals for Action for a Heart Attack or Stroke - cont'd

Shortness of Breath

- Difficulty breathing.

Nausea

- Indigestion.
- Vomiting.

Sweating

- Cool, clammy, pale skin.

Fear

- Anxiety.
- Denial.

Chest pain/discomfort is the most common symptom of heart attack for both women and men. However, studies show that women are more likely to have subtle symptoms of heart attack such as:

- Indigestion.
- Abdominal or mid-back pain.
- Nausea or vomiting.

Name five things you are going to remember to look for from the previous list if you suspect someone is having a heart attack:

- 1.
- 2.
- 3.
- 4.
- 5.



Stroke

List three symptoms you think a person experiencing a stroke might have:

- 1.
- 2.
- 3.



Signals for Action for a Heart Attack or Stroke - cont'd

Now let's go over the Stroke Signals For Action. It is important to differentiate these signals from those of a heart attack. Compare your answers to the list that follows.



The following are the symptoms a person may exhibit when having a stroke. It is important to tell the family physician or go to the nearest hospital emergency if these occur. It is also important to go to the hospital or see a physician even if these symptoms are temporary. Make a note of the last time the person was without any of the following symptoms.

Weakness

- Sudden loss of strength or sudden numbness in the face, arm or leg.

Trouble speaking

- Sudden difficulty speaking or understanding or sudden confusion.

Vision Problems

- Sudden trouble with vision, particularly in one eye, or double vision.

Headache

- Sudden, severe or unusual headache.

Dizziness

- Sudden loss of balance, especially with any of the above signs.

Transient Ischemic Attack (TIA)

Sometimes a person may exhibit symptoms of a stroke but they will only last for a short time and the person will recover all previous function. This is called a mini-stroke or **transient ischemic attack (TIA)**. It is caused by a temporary lack of oxygen rich blood to the brain. It may be an indicator that a person will have a stroke in the future. TIAs are considered a warning sign for a stroke and the person should seek prompt medical attention.

How do I know if a person is having a stroke?

There is a very quick method to assess a person for signs of a stroke. It is called the **Cincinnati Prehospital Stroke Scale**.¹, and identifies a stroke based on the presence of three findings, facial droop, arm drift, and abnormal speech. Pictures of the assessment can be found in the link to stroke on the American Heart Association website: www.aha.org.

The three components to look for are:

1. **Facial droop**: have the person smile. Normally, both sides of the face should move equally. It is abnormal if one side of the face does not move as well as the other side.
2. **Arm drift**: have the person close their eyes and extend both arms straight out with the palms up for ten seconds. Normally, both arms move the same or don't move at all. It is abnormal if one arm does not move or one arm drifts down when compared to the other.
3. **Abnormal speech**: have the person repeat after you, "you can't teach an old dog new tricks". It is normal if the person repeats the sentence with no slurring. It is abnormal if the person slurs the words, uses the wrong words, or is unable to speak.

If any of these signs are present, then the person should have immediate medical attention and go to the Emergency Department of your local hospital. The presence of one finding indicates a 72% probability of a stroke. The probability increases when more findings are present.

¹Kothari R, Hall K, Brott T, Broderick J. Early stroke recognition: developing an out-of-hospital NIH Stroke Scale. *Academic Emergency Medicine* 1997;4:986-990

Helping Yourself or Others

Recognizing the warning signs of a heart attack or stroke is an essential first step in helping either yourself or someone around you if you suspect a heart attack or stroke. But once you have determined that you or someone else is having a heart attack or stroke, what do you need to do?

If you are experiencing the signs of a **HEART ATTACK**, this is a medical emergency and you should **IMMEDIATELY** do the following:

- Call 911 or your local emergency number for help, or have someone call for you (It's a good idea to keep a list of emergency numbers and your address near the phone at all times).
- Stop all activity and sit or lie down, in whatever position is most comfortable.
- If you take nitroglycerin, take your normal dosage.
- If you are experiencing chest pain, chew and swallow one (1) adult 325 mg ASA tablet (e.g., Aspirin®) or two (2) 80 mg tablets. Do NOT use pain medicines like acetaminophen (e.g. Tylenol) or ibuprofen (e.g. Advil®).
- Rest comfortably and wait for emergency medical services (EMS) (e.g., ambulance) to arrive.

If you are with someone who is experiencing signals for action of a heart attack, this is a medical emergency. You should:

- Help the person with all the activities listed above.
- Expect denial. If the person does not look well, describes chest discomfort as listed previously, you must take charge and call 911 or your local emergency number.
- A person who is suspected of having a heart attack is treated as if they are - until proven otherwise. Do not drive the person to hospital or let them drive they **MUST** be transported by ambulance.
- If the person becomes unresponsive (no breathing, coughing, movement or signs of life), call 911 and be prepared to start CPR. Press on the center of the chest 30 times and then give two breaths, continue in this fashion until help arrives.

What does CPR stand for?

When performing cardiopulmonary resuscitation (CPR), you will be giving the person breaths and pumping their heart by doing chest compressions in order to circulate blood and oxygen to the heart and brain. If you do not know how to do CPR, you can take a course in your community or obtain a CRP Anytime™ Family and Friends™ training kit from the Heart and Stroke Foundation.

Doing CPR until help arrives, buys time and keeps the brain and heart primed with some oxygen rich blood, so that further treatments will have a greater chance of success. One of the most common causes of cardiac arrest after a heart attack is a malfunction in the heart's electrical system. First responders or paramedics will treat the heart with a device, a defibrillator, which will provide an electrical charge to the heart in an attempt to restore its regular heart beat.

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Helping Yourself or Others - cont'd

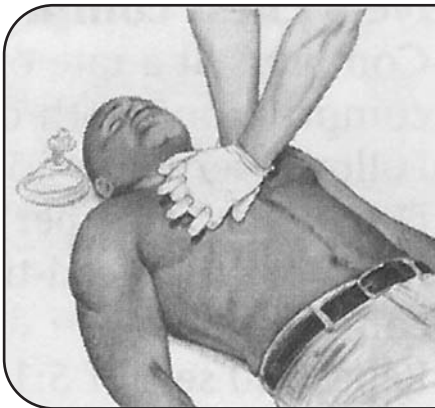
If you are experiencing the warning signs of a **STROKE**, this is a medical emergency. You should **IMMEDIATELY** do the following:

- Call 911 or your local emergency number for help, or have someone call for you (It's a good idea to keep a list of emergency numbers near the phone at all times).
- Stop all activity and sit or lie down, in whatever position is most comfortable.
- Rest comfortably and wait for emergency medical services (EMS) (e.g., ambulance) to arrive.

If you are with someone who is experiencing the stroke signals for action, this is a medical emergency. You should:

- Help the person with all the activities listed above.
- Expect denial. You must take charge and call 911 or your local emergency number.

If the person becomes unresponsive (no breathing, coughing, movement, or signs of life), call 911 and be prepared to start CPR. Press on the center of the chest 30 times and then give two breaths, continue in this fashion until help arrives.



Heart Attack and Stroke List

1. Located on the last page of this handbook is the Heart Attack and Stroke List.

There is room to put five prompts for remembering the signs or warnings of a heart attack and stroke. There is also room to write down the prompts of what to do during a heart attack or stroke. Complete the list, cut it out of this handbook and post it in your home where it will be easily accessible.

Take a few minutes now to write down the five heart attack signs and five stroke signs and what you need to do to help yourself or someone experiencing these signs.

2. Go to the front of the phone book to locate instructions for completing CPR.

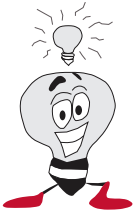


5 Minute Quiz



Answer true or false to the following questions:

1. Heart attack and cardiac arrest are the same conditions.
2. Weakness, trouble speaking, visual disturbances, new or unusual headache, and dizziness are signs of a stroke.
3. A transient ischemic attack is a temporary stroke or mini-stroke.
4. Atherosclerosis or plaque build up will decrease the flow of oxygen rich blood to cells.
5. Veins and arteries carry oxygen rich blood to the cells.
6. A person experiencing the signs of a heart attack should chew an Aspirin or ASA tablet while waiting for the ambulance.
7. Women exhibit exactly the same symptoms of a heart attack as men.
8. Angina results from a temporary interruption of oxygen rich blood to the heart muscle.
9. Heart attack causes heart muscle death from a lack of oxygen to the cells.
10. CPR can be taught from a self directed instructional package available from the Heart and Stroke Foundation.



Answers:

1. False. A heart attack is heart muscle death caused by a block in the coronary artery. A cardiac arrest is the stoppage of breathing and heart beat that may be the result of a heart attack. Other conditions also cause cardiac arrest. For example, being struck by lightning, a drug overdose, or drowning may also cause a cardiac arrest.
2. True. These are the classical signs of a stroke, they may be temporary or permanent signs.
3. True.
4. True.
5. False. Only arteries carry oxygen rich blood to the cells. Veins carry de-oxygenated blood to the heart.
6. True.
7. False. Women do not always display classical signs of a heart attack. Go to page 13 to review women's presentation for a heart attack.
8. True. Angina results from a temporary decrease in oxygen rich blood to the heart muscle, whereas heart attack results from a lack of oxygen rich blood to the heart muscle.
9. True.
10. True. The name of the program is Family & Friends, CPR Anytime. It is a self directed CPR training program that includes an inflatable CPR doll, an instruction manual, and instruction DVD to teach you and the members of your family how to perform CPR. The training package can be ordered from the Heart and Stroke Foundation office.

Risk Factors for Heart Disease

Risk factors are behaviours or medical conditions that make people more likely to develop a disease. Some of the risk factors associated with the development of heart disease and stroke you are not able to control, others you can do something about.

At the completion of the section you will be able to:

- Identify the risk factors for heart disease and stroke.
- Discuss the role of hypertension and high cholesterol as a risk factor for heart disease and stroke.
- Identify heart healthy lifestyle choices that have the potential to reduce your risk for developing heart disease or stroke.

Risk factors for **heart disease** that you can't control:

- **Age:** As you get older your risk of heart disease increases.
- **Gender:** Men over the age of 55 years are at greater risk as well as women after menopause.
- **Family history:** You are at a greater risk if your parents, siblings, or children developed heart disease before age 55 or for female relatives before menopause.
- **Ethnicity:** Persons from First Nations, African, or South Asian descent are more likely to have high blood pressure and diabetes therefore, they are at a greater risk of developing heart disease, than the general population.

Risk factors for heart disease that you can do something about:

- High blood pressure, hypertension
- High blood cholesterol
- Smoking
- Diabetes
- Being overweight
- Physical inactivity
- Excessive alcohol consumption
- Stress

Almost 70% of Canadians will be impacted by heart disease and/or stroke. The impact of the disease can be managed by looking after yourself and reducing your risk factors.

Risk Factors for Stroke

Risk factors for **stroke** that you can't control:

- **Age:** most strokes occur in persons over 65, but can occur at any age. Children are known to have strokes.
- **Gender:** Women have a lower risk for stroke until they reach menopause. Ultimately more women die from stroke than men.
- **Ethnicity:** Persons from First Nations, African, or South Asian descent are more likely to have high blood pressure and diabetes therefore, they are at a greater risk of developing a stroke than the general population.
- **Family history:** Your risk of stroke is increased if a close family member, parents, siblings, or children, had a stroke before age 65.
- **Prior stroke or TIA:** If you have had a previous stroke or TIA your risk is greater.

Risk factors for stroke that you can do something about:

- High blood pressure, hypertension.
- High blood cholesterol.
- Smoking.
- Diabetes.
- Heart disease, heart rhythm irregularity atrial fibrillation.
- Being overweight.
- Physical inactivity.
- Excessive alcohol consumption.
- Stress.

Almost 70% of Canadians will be impacted by heart disease and/or stroke. The impact of the disease can be managed by looking after yourself and reducing your risk factors.

Activity:

Go to the Heart and Stroke Foundation website www.heartandstroke.ca and complete your personalized risk profile from the Risk Assessment link. If you want to assess the risk for your other family members, have them go to the website and complete the risk assessment.

If you don't want to go to the website at this time, take a moment and complete the two lists as it pertains to you. The list on the left is risk factors that we can change or influence ourselves and the right is risk factors that we cannot influence.

Risk factors you CAN influence	Risk factors you CAN'T influence

Identify a risk factor that you would like to influence.

Age, Gender, Family History and Ethnic Descent

All of these risk factors are factors we cannot change. It is, however, important to be aware of these factors, so that we can ensure that we lower our risk of heart disease with other things such as diet, stress, and physical activity.

Take a minute to think about your family history...

From the list below, check off any of the medical conditions that a member of your family has had.

- Heart attack or stroke before 65.
- Angina.
- High blood pressure.
- High cholesterol.
- Diabetes.

Your family history can contribute to your risk of heart disease.

Remember though, your risk can be greatly reduced by leading a healthy lifestyle.

Your ethnic descent can also increase your risk of heart disease. People of African, South Asian, and First Nations descent are at higher risk of heart disease because they have a greater incidence of high blood pressure and diabetes.

B is for Blood Pressure

B is for Blood Pressure, specifically high blood pressure (HBP) or hypertension

Blood pressure (BP) measures the pressure or force of the blood against the walls of your blood vessels. It is a reflection of the work of the heart as it contracts and forces oxygenated blood out of the left ventricle of your heart into the arteries and then relaxes as the heart fills with blood. Consequently, there are two numbers to a blood pressure.

A blood pressure reading looks like this:

120/70 mm Hg

The "120" is the **systolic pressure**, the pressure when the heart contracts and forces the blood into the blood vessels. This number is a barometer of the body's environment. The number can be variable depending on the time of day, location, level of activity, and situation when the blood pressure is measured. Smoking, some medications, and emotions can make this value increase. It is normal to have this value be different throughout the day. For example, the systolic pressure will be lower during periods of rest or inactivity and will increase with exercise.

The "70" is the **diastolic pressure** representing the pressure within the heart when it relaxes as it fills with blood.

So what do we mean by "high blood pressure" or hypertension?

In adults, **high blood pressure** or **hypertension** is usually defined as a blood pressure that is **consistently** greater than 140mm Hg systolic pressure, or greater than or equal to 90 mmHg diastolic pressure. However, if you have several risk factors for heart disease or stroke or other problems related to blood pressure (e.g. diabetes or kidney disease), your doctor may decide to treat your blood pressure even if it is not as high as 140/90.

High blood pressure:

- Usually has no symptoms.
- Can double or triple your risk of stroke, heart disease and kidney disease.

The only way to find out if you have high blood pressure is to get your blood pressure checked. If you are concerned about your BP ensure that you have it taken a few times and watch for the trend, not one value, one time.

What are the Risk Factors for High Blood Pressure?

Age

- Blood pressure tends to rise with age; about 50% of people over the age of 65 have high blood pressure.

Ethnicity

- Incidence of high blood pressure is higher among members of some ethnic groups, such as South Asians, First Nations, Aboriginal Peoples or Inuit, and African Canadians.

Family History

- If one of your parents has high blood pressure, you have a 1 in 5 chance of developing the condition. If both your parents have this condition, your risk is 1 in 3.

Obesity

- Excessive weight is a risk factor - especially if weight is stored around the abdomen.

Diabetes

- Increases risk for high blood pressure.

Stress

- Repeated exposure to stress may raise blood pressure levels or contribute to unhealthy lifestyle choices, such as overeating, and excessive drinking.

Excessive alcohol consumption

- Alcohol increases blood pressure.

Cigarette smoking

- Smoking can cause high blood pressure in certain individuals.

What are the Risk Factors for High Blood Pressure? - cont'd

Some additional risk factors for women include:

Oral Contraceptives

- A small percentage of women who take oral contraceptive pills develop high blood pressure.
- Cigarette smoking while taking the pill for women aged 35 and over significantly increases risk of complications, such as blood clots.

Pregnancy

- High blood pressure can occur during pregnancy especially during the last three months.
- Those at increased risk for high blood pressure in pregnancy include:
 - Teenagers and women over the age of 35.
 - Women experiencing their first pregnancy.
 - Women with a history of high blood pressure, diabetes, kidney disease or heart problems.
 - Women whose mothers had a high blood pressure disorder in pregnancy.

Do you have any risk factors for high blood pressure?
What are they?

When was the last time you had your blood pressure checked?
Do you remember what it was?

It is recommended that all Canadians over the age of 20 have their blood pressure checked regularly, at the minimum every two years or as frequently as recommended by their doctor. If your blood pressure is higher than normal, or if you are starting new medications to lower your blood pressure, you will probably need to have it checked more frequently.

C is for Cholesterol

What is cholesterol?

It is:

- a lipid (fat) manufactured by our bodies and found in the blood.
- a vital chemical building block that the body uses to make cell membranes and hormones.
- something the body cannot function without.

Cholesterol is produced by the body and found in some of the foods we eat. Cholesterol found in the food we consume is known as "dietary cholesterol".

Having too much cholesterol in the blood is a major risk factor for atherosclerosis, which was discussed earlier. Maintaining a cholesterol balance is therefore important to heart health. What do we mean by "cholesterol balance"?

Cholesterol Testing

When you are tested for cholesterol, you will likely get a measure of your:

- total blood cholesterol.
- high density lipoprotein (HDL).
- low density lipoprotein (LDL).
- triglycerides.

Blood cholesterol is the total amount of cholesterol in your blood. This number, while significant, doesn't necessarily tell you everything you need to know about your blood cholesterol. Your levels of HDL and LDL and the ratio between total and HDL cholesterol are very important.

Look at the table on the next page and read the descriptions of the different types of cholesterol, HDL and LDL. Can you guess which description goes with HDL and which one describes LDL?

C is for Cholesterol - cont'd



Write your guess at the top.

Kind of Cholesterol	A.	B.
(fill in the blanks)	<ul style="list-style-type: none"> • Often called the "bad" cholesterol but normal amounts needed by our bodies for cell growth and repair. • Cause gradual buildup of fatty plaque on walls of arteries. • If levels are too high, they can lead to atherosclerosis, a main cause of _____ & _____. 	<ul style="list-style-type: none"> • Often referred to as "good" cholesterol because it carries away the "bad" cholesterol from blood vessel walls. • Higher levels are considered good. • May help to protect us from atherosclerosis and heart disease, according to current research. • Carries cholesterol formed by the body to the liver so it can be removed.



- **Column A** describes **LDL, low density lipoproteins**. The answers in the blanks at the bottom of the column are **heart disease and stroke**.
- **Column B** describes **HDL, high density lipoproteins**. I remember it by calling HDL the 'helpful lipoproteins'.

Triglycerides

The body contains another type of fat called triglyceride, which:

- is not a cholesterol but is the most common form of fat found in our bodies.
- does not adhere to blood vessel walls.
- at high levels often associated with low levels of "good" cholesterol.

Triglycerides are like "thick cream" in the blood and increase the tendency of the blood to clot. The greater the tendency to clot, the greater the risk of a heart attack or stroke.

Interpreting cholesterol test results

The results of a cholesterol test will tell you whether or not your cholesterol levels are within acceptable limits, or slightly elevated, or significantly elevated. When deciding what is the "right" level of cholesterol for you, your doctor will take into account your age, gender, and any other heart disease risk factors you may have.

Cholesterol testing isn't necessary for everyone, but should be considered when other coronary heart disease risk factors are present, or when there is a strong family history of elevated cholesterol or premature heart disease.

Keeping the Right Balance Between HDL And LDL

This balance is important to good health. So what can we do to maintain a healthy balance? Our diet is one major way.

Become familiar with the different types of fat.

All fats are not the same and some fats are better for you than others.

- 1. Polyunsaturated Fats** Liquid at room temperature; contain essential fatty acids your body cannot manufacture; found in corn, safflower, sesame, soybean, sunflower oils, & some fish and shellfish.
- 2. Saturated Fats** Can raise blood cholesterol; solid at room temperature; found in animal fats, fatty cuts of meat, poultry with skin on, palm oils and coconut oil and whole milk products like butter, cream, and cheese.
- 3. Trans Fatty Acids** Made during hydrogenation process; increases blood cholesterol; found in shortening, pastries, fast/convenience/package foods, commercially made muffins, cookies/crackers, deep fried food, and some margarines.

C is for Cholesterol - cont'd

4. **Monounsaturated Fats** Help lower cholesterol; liquid at room temperature; found in canola, olive, and peanut oils and avocados.
5. **Hydrogenated Fats** Fats processed from liquid form to solid or spreadable form.
6. **Omega-3 Fatty Acids** A group of polyunsaturated fats that help to lessen the risk of stroke and heart disease; found in salmon, lake trout, albacore tuna, flax seed oil, canola oil, and walnuts.

While you do need some fat in your diet, it is a good idea to try to reduce your fat intake. Here are some ways to reduce fat in your diet:

- Spread less butter or margarine, on bread, buns and bagels.
- Have salads with less dressing or with a lower-fat dressing.
- Try vegetables without butter, margarine or rich sauces.
- Try skim, partly-skim or reduced-fat milk products in recipes.
- Choose meat, poultry or fish that are baked or broiled. Serve with light broth or herbs.
- Have fried or deep-fried foods less often.
- Have snacks such as chips and chocolate bars less often.

Each of these fats has different effects on our blood cholesterol. On the following page you will find a chart. Fill in the space on the left with the type of fat that corresponds with the effect on blood cholesterol on the right.

C is for Cholesterol - cont'd



Fat Type

Effect on Cholesterol

1.	<ul style="list-style-type: none">• Raises blood cholesterol levels.• Found in fatty meat, poultry skin.• High intake of this fat in the diet is main dietary cause of high blood cholesterol.
2.	<ul style="list-style-type: none">• Lowers blood cholesterol.• Found in mainly in vegetable oils like corn, sesame and sunflower oils.
3.	<ul style="list-style-type: none">• Lowers cholesterol and may also help body to maintain proper levels of HDL cholesterol.• Found in olive oil and avocados.
4.	<ul style="list-style-type: none">• Has same effect on blood as saturated fat.• Often found in commercially made products, deep-fried food.
5.	<ul style="list-style-type: none">• Has same effect as polyunsaturated fats.• Found in salmon, lake trout, canola oil.



How did you do?

Were you able to identify the types of fat described in the above chart.

- 1 = saturated fats;
- 2 = polyunsaturated fats;
- 3 = monosaturated fats;
- 4 = transfatty acids; and
- 5 = omega 3 fatty acids.

For your best chance for a healthy heart ensure that your diet is rich in omega 3 fatty acids, polyunsaturated fats, and monosaturated fats. Remember to stay away from fats that are solid at room temperature, e.g. Fat around meat, hard margarine, cheese.

Heart Healthy Living

The previous readings presented information on two very specific risk factors, high blood pressure and high cholesterol. Now we are going to review the other risk factors and their relationship to healthy living and reducing heart disease and stroke.

Let's begin with your awareness of your own heart health and healthy lifestyle.



What six things would you say are important to having a heart healthy lifestyle?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Heart Healthy Living - cont'd

If you mentioned any of the following, well done!

A healthy lifestyle includes:

- Eating a balanced diet.
- Being physically active everyday.
- Reducing stress.
- Being knowledgeable about heart health through regular visits with a family physician, or other health care professional, or through self directed learning activities.
- Knowing if you are at risk of heart disease or stroke due to family history, age, gender or lifestyle.
- Leading a smoke-free lifestyle.



Poor nutrition, lack of physical activity, smoking and stress can not only increase your risk of heart attack and stroke, but they can also affect your day-to-day lifestyle. While leading a healthy lifestyle can help to prevent heart attacks and strokes, it also can benefit you in other ways. Leading a healthy lifestyle can give you more energy, help you to be more productive, help you to enjoy a more active lifestyle with friends and family, and give you more self-confidence and self-worth.

Focusing on You

The following two quizzes, the Nutrition Quiz on page 35 and the Stress Quiz on page 42 are designed to give you an indication of your current knowledge on nutrition, and to help you to determine whether or not you are currently leading a stressful lifestyle.

Nutrition Quiz



The following is based on Canada's Food Guide (www.healthcanada.gc.ca/food_guide), which is a guide that can help us make wise choices on the foods we eat. The Canada Food Guide was revised in 2007 to include expanded categories for different ages of children, men, and women and different serving size for the new age and gender classifications.

According to the Canada Food guide for adults, older than 19:

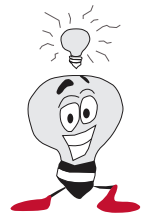
- 1) How many serving of fruits and vegetables should we eat each day?
 - a. 2 to 3
 - b. 3 to 5
 - c. 7 to 10
 - d. 10 to 12
- 2) How much is one serving of grains?
 - a. $\frac{1}{2}$ a cup of rice or 1 slice of bread, (35 g)
 - b. One bagel, any size
 - c. As much as you can eat in one sitting
 - d. 2 cups of pasta
- 3) What is the recommended maximum number of alcoholic drinks a woman can consume each week?
 - a. Less than or equal to 2
 - b. Less than or equal to 5
 - c. Less than or equal to 7
 - d. Less than or equal to 1
- 4) Each day we should consume at least _____ glasses of water.
 - a. 2
 - b. 4
 - c. 6
 - d. 8
- 5) Which is better for you?
 - a. Whole grain products
 - b. Whole wheat bread
- 6) Fresh foods may be more expensive than packaged foods.
 - a. True
 - b. False
- 7) A product that claims to be "Lite" means it is definitely a healthy food choice.
 - a. True
 - b. False

Nutrition Quiz - cont'd

- 8) How many teaspoons of fat are in 1 teaspoon of butter or margarine?
- $\frac{1}{4}$
 - $\frac{1}{2}$
 - 1
 - 2
- 9) Which of the following fats are healthy fats?
- Saturated Fats
 - Omega-3 Fats
 - Polyunsaturated and Monounsaturated fats
 - Trans fats
 - None, all fats are unhealthy

Answers to the Nutrition Quiz

- 1) c. The range of servings of vegetables and fruits incorporates the needs for male and female adults, from 19 years old to 51 years old and older.
- 2) a. 35 grams of cereal, $\frac{1}{2}$ cup of rice or slice of bread all equal 1 serving, while a bagel or a cup of pasta equals 2 servings.
- 3) c. Women may consume a maximum of one alcoholic drink per day or seven per week with no more than four drinks in one sitting.
- 4) d. Always drink lots of water, especially when you are active or it is hot outside.
- 5) a. Try to choose whole grain or enriched products as they contain starch, fiber and many essential vitamins.
- 6) b. Packaged foods actually cost more, just plan meals around the seasons so you can buy cheaper, seasonal vegetables.
- 7) b. "Lite" is comparative. Therefore this claim is meaningless unless you know what they are comparing the fat content to.
- 8) c. Margarine and butter are fats, therefore 1 teaspoon equals 1 teaspoon of fat.
- 9) b. and c. There ARE healthy fats and we need fats to survive.



Using Canada's Food Guide to Healthy Eating

Four Food Groups

Being knowledgeable about nutrition not only includes knowing what foods are low in fat, but also how much of each food group you should eat, and what food will provide the most energy for your active lifestyle.

Canada's Food Guide recommends food servings of specific products for a specific audience. In addition to recommending food guides for men and/or women 19 to 51 years old and older, the Guide identifies the nutritional recommendations for children's age groups of 2 to 3 years, 4 to 8 years, 9 to 13 years and teens 14 to 18 years. If you need more specific information related to one of these age groups, you should go directly to the website to review Canada's Food Guide. We are going to use the range of recommendations for men and women over 19 years of age.

Vegetables and Fruit

The recommended daily servings per day for an adult is 7 to 10. A serving size of fresh, frozen, canned vegetables, fresh or frozen juice is $\frac{1}{2}$ cup or 125 milliliters (ml), raw vegetables is 1 cup.

- Eat at least one dark green and one orange vegetable each day.
- Have vegetables and fruit more often than juice.
- Use vegetables and fruit prepared with little or no added fat, sugar, or salt.

Grain Products

The recommended daily servings per day for an adult are 6 to 8. One food guide serving is 1 slice of bread (35g), $\frac{1}{2}$ a bagel, pita, or tortilla, $\frac{3}{4}$ cup of hot cereal, $\frac{1}{2}$ cup of rice or bulgur, or $\frac{1}{2}$ cup of pasta or couscous.

- Half of your daily grain products should be whole grain that are lower in fat, sugar, or salt.
- Try to choose whole grain and enriched foods more often.

Milk and Alternatives

Recommended daily servings of milk and alternatives are 2 to 3. A food guide serving is 1 cup of milk or reconstituted powder milk, $\frac{3}{4}$ cup of yogurt, $1\frac{1}{2}$ oz of cheese, or 1 cup of fortified soy beverage.

Using Canada's Food Guide to Healthy Eating - cont'd

- Drink skim, 1% or 2% milk each day. 2 cups of milk daily are required for adequate Vitamin D.
- Fortified soy beverages are an acceptable milk alternative.

Meats and Alternatives

Recommended daily servings of meats and alternatives are 2 to 3. A food guide serving is 2½ ounces of cooked fish, shellfish, poultry or lean meat, ¾ cup of cooked legumes or tofu, two eggs or 2 tbsp of peanut or nut butters, or ¼ cup of shelled nuts and seed.

- Have meat alternatives often.
- Eat 2 servings of fish per week, heart healthy fish are salmon, herring, mackerel, sardines, and trout.
- Trim visible fat from meat, remove skin from poultry.
- Use cooking methods that require little or no fat, e.g. roasting, poaching.
- Use luncheon meats that are lower in salt.

How did you do?

Now compare what you ate yesterday with what you've just learned about the four food groups and the corresponding recommended daily servings.



What could you change (add/subtract) to make your diet more heart healthy?

Remember, Canada's Food Guide recommends:

- Enjoy a variety of foods.
- Emphasize cereals, breads, other grain products, vegetables and fruits.
- Choose lower-fat dairy products, leaner meats and foods prepared with less or no fats.
- Achieve and maintain a health body weight by enjoying regular physical activity and healthy eating.
- Limit salt, alcohol and caffeine.

Fats: "The good, the bad and the ugly..."



Earlier in the handbook we reviewed the different kinds of fats, the "good" and the "bad". List the three "bad" fats and three "good" fats.

"BAD FATS"	"GOOD FATS"

Which of the above is "the ugly" fat? _____.

When you see "partially hydrogenated fats" on food labels, it means what?

Everyone needs some fat in their diet because:

- without it, your body cannot absorb vitamins A,D,E, and K;
- it is a key source of two essential fatty acids;
- it keeps your nails, skin and hair from drying out.



BAD FATS

1. Trans fatty acids
2. Saturated fats
3. Hydrogenated fats

GOOD FATS

1. Polyunsaturated fats
2. Omega 3 fatty acids
3. Monounsaturated fats

The ugly fats are saturated fats. We can reduce their intake by healthy nutritional choices. For example – removing skin from chicken, baking or barbequing chicken not frying it.

Partially hydrogenated fats means that the fat in the food has been processed so that the fat in the product now has the same effect as a saturated fat.



Scenario 1

Susan has come to you and tells you that she is worried about heart disease as it tends to run in her family. Not only is she interested in making her diet more heart healthy (her diet: mostly red meat and potatoes, lunches are usually of the fast food or pastry variety; 6-8 cups of coffee a day), she's also interested in finding ways to reduce the amount of fat in her diet.

How would you coach her to create a heart healthy diet?

Points to consider might be:

- Reducing her caffeine consumption.
- Increasing the amount of fruit and vegetables.
- Adding fish to her diet, not deep fried, eat lean meat.
- To go to the Heart and Stroke Foundation website, www.heartandstroke.ca and explore the links for Healthy Living, Healthy Eating, Recipes, Health Check or Family Health.
- See a nutritionist.
- Look at the Heart and Stroke Foundation print resources, pamphlets, books, or cookbooks.



Stress Factors and De-Stressors

Stress

When an event occurs in our lives, we automatically evaluate the situation mentally and decide whether or not it is threatening to us and what skills we need in the situation. If we decide that the demands of the event outweigh our skills, we determine that the situation is stressful (a stressor) and react with a “stress response”.

The Three Stages of Stress

Stage 1: Mobilization of Energy (primary stressor)

- Bodily activity is increased in response to a stressor; “fight-flight” reaction is induced.
- Your heart may pound, your palms may sweat, and your breathing may speed up.

Stage 2: Exhaustion or Consuming Energy

- When there is no escape from Stage 1, the body may begin to release stored sugars and fats.
- Symptoms include: feeling driven, pressured, tired, increase in smoking, coffee drinking, alcohol consumption, anxiety, memory loss, illness such as colds and flu.

Stage 3: Draining Energy Stores

- When the stressful situation is not resolved, you may become chronically stressed.
- Symptoms include: insomnia, errors in judgment, personality changes, serious illness (heart disease, mental illness).

Activity: Think of a recent experience when you felt stressed. Which stage of stress reflected your experience?

Stress Quiz



No two people are the same and therefore everyone reacts to stressful situations differently. One person may find a situation extremely stressful while another may not, but the symptoms of stress can be similar and it is important to look for these symptoms and find ways to reduce stress in our daily lives. Stress can not only make it difficult to maintain a healthy lifestyle, but it may also cause increases in blood cholesterol and blood pressure, and it may increase the likelihood of forming blood clots.

The following quiz will help you to determine your stress index. Please complete it as fully as possible. This survey is for your personal use only.

Do you frequently:	Yes	No
Neglect your diet?	<input type="radio"/>	<input type="radio"/>
Try to do everything yourself?	<input type="radio"/>	<input type="radio"/>
Blow up easily?	<input type="radio"/>	<input type="radio"/>
Seek unrealistic goals?	<input type="radio"/>	<input type="radio"/>
Fail to see the humor in situations others find funny? ...	<input type="radio"/>	<input type="radio"/>
Act rude?	<input type="radio"/>	<input type="radio"/>
Make a "big deal of everything?	<input type="radio"/>	<input type="radio"/>
Look to other people to make things happen?	<input type="radio"/>	<input type="radio"/>
Have difficulty making decisions?	<input type="radio"/>	<input type="radio"/>
Complain you are disorganized?	<input type="radio"/>	<input type="radio"/>
Avoid people whose ideas are different from your own?	<input type="radio"/>	<input type="radio"/>
Keep everything inside?	<input type="radio"/>	<input type="radio"/>
Neglect exercise?	<input type="radio"/>	<input type="radio"/>
Have few supportive relationships?	<input type="radio"/>	<input type="radio"/>
Use sleeping pills and tranquilizers without a doctor's approval?	<input type="radio"/>	<input type="radio"/>

Stress Quiz - cont'd

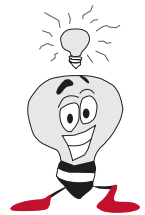
- Get too little rest?
- Get angry when you are kept waiting?
- Ignore stress symptoms?
- Put things off until later?
- Think there is only one right way to do something?
- Fail to build relaxation time into your day?
- Gossip?
- Race through your day?
- Spend a lot of time complaining about the past?
- Fail to get a break from noise and crowds?

Total your score: "1" point for every Yes.

Total: _____ out of 25

Now compare this to the stress index listed below:

- 1 to 6 points:** There are few hassles in your life. Make sure, though, that you are not trying so hard to avoid problems that you shy away from challenges.
- 7 to 13 points:** You've got your life in fairly good control. Work on the choices and habits that could still be causing you some unnecessary stress in you life.
- 14 to 20 points:** You're approaching the danger zone. You may well be suffering stress-related symptoms and your relationships could be strained. Think carefully about choices you've made and take relaxation breaks every day.
- Above 20 points: **Emergency!**** You must stop now, re-think how you are living, change your attitudes, and pay careful attention to diet, exercise, and relaxation.



Ten Tips for Dealing with Stress and Tension

1. Recognize your symptoms of stress.
2. Look at your lifestyle and see what can be changed, in your work situation, your family situation, or your schedule.
3. Use relaxation techniques: yoga, meditation, deep breathing, or massage.
4. Exercise! Physical activity is one of the most effective stress remedies.
5. Time management – do essential tasks and prioritize the others.
6. Watch your diet – alcohol, caffeine, sugar, fats and tobacco all put a strain on your body's ability to cope with stress.
7. Get enough rest and sleep.
8. Don't try to be perfect.
9. Tackle one thing at a time; don't try to do too much at once.
10. Have some fun! Laugh and be with people you enjoy.

Which ones did you select?

Physical Activity for a Healthier Lifestyle

The Heart and Stroke Foundation of BC & Yukon recommends being physically active at moderate intensity for at least 30 minutes most days of the week to ensure a healthy, active lifestyle.

How much time do you spend on physical activities in a week?

_____.

Physical activity can prevent or help reduce high cholesterol, high blood pressure, diabetes and it can also reduce the risk of heart disease and stroke.

This is an opportunity for you to reflect on your current physical activity plan. You may already have an exercise plan that you follow but any plan needs updating from time to time in order to keep you interested and motivated.

keep the beat
VOLUNTEER

Updating your Activity Plan

The following is a list of physical activities you may be currently involved in or would like to include in your plan. There may be some that aren't listed here so feel free to add any more that you can think of.

Check off two to three activities that you already fit into your daily routine from the list below. The only rules are:

1. Physical activity must be done continuously in 10 minute bouts for at least 30 minutes per day.
2. Large muscle groups must be used.
3. The exercise must be FUN!
 - Walking at a brisk pace, alone, with a friend or with your dog
 - Cycling (road, trail or at the gym)
 - Aerobics class
 - Jogging
 - Swimming or an aqua-fit class
 - Jumping rope
 - Hiking
 - Dancing, ballroom, ballet, jazz, etc.
 - Cross county skiing/ downhill skiing
 - Ice skating or roller blading
 - Racket sports such as tennis, squash or racket ball
 - Using gym equipment such as step-mills, elliptical trainers, etc.
 - Team sports such as basketball, ultimate frisbee, soccer, and volleyball
 - Yoga/Pilates
 - Martial Arts
 - Tai Chi

Physical Activity for a Healthier Lifestyle - cont'd



What new activities would you like to incorporate in your plan?

A Recipe for Success ...

You want to do everything you can to make sure you experience success.

- Consult your family doctor first if you haven't been active for awhile.
- Make sure your activities are "do-able", and set goals for yourself that are realistic and achievable.
- Start off easy/small. For example, 10 minutes of walking; you can always add on or increase the pace.
- Try getting a family member or a friend as an exercise buddy; having the support of others and being accountable can help to up your chances of following through.
- Make a date for exercise. Schedule your exercise in your day planner or on the calendar. You are more likely to exercise if it is scheduled into your life.

Now take one last look at your physical activity plan to ensure that you have set some achievable goals for yourself.



Scenario 2

Remember Susan? She works full-time and is mother to three children, so her schedule is pretty hectic and finding time to go to the gym seems impossible. Yet because her job is sedentary (mostly sitting) and she's in the habit of driving everywhere, she needs to build in more physical activity.

How could you coach her to increase her daily physical activity?

Points to consider might be:

- Park the car further away from work.
- Walk for ten minutes during breaks at work.
- Schedule time on the calendar or in her day planner for activities she enjoys.
- Make an appointment with herself at the gym.
- Make plans with a friend to stay motivated.



Leading a Smoke-Free Life

Smoking and/or exposure to second-hand smoke is a major risk factor for cardiovascular disease. It causes the heart to work harder and decreases the amount of oxygen available to the heart. Oxygen is carried in the blood by attaching to the hemoglobin. Smoking produces carbon monoxide. Carbon monoxide attaches to the hemoglobin ten times easier than oxygen. So, given the opportunity for hemoglobin to carry oxygen or carbon monoxide, it prefers to attach to the carbon monoxide. Nicotine in cigarettes increases the heart rate and makes the diameter of the blood vessels smaller. It also makes components in the blood "sticky" and more likely to attach to damaged plaques, thus further decreasing the diameter of an artery narrowed by atherosclerosis. When a person quits smoking within one year, the risk of smoking-related cardiovascular disease decreases by about 50%. After five years of non-smoking the risk of heart disease is equal to the risk of a non-smoker.

Reduce the risk:

1. Commit to a date and write it down.
2. Keep your hands busy.
3. Make your car and home smoke-free.
4. Drink plenty of water.
5. Get support from others. Join a support group. The support group may meet regularly or you may consider joining an internet group. Go to www.quitnow.ca or to www.heartandstroke.ca for internet resources.
6. Use sugarless gum, raw vegetables, or low calorie snacks to help with the urge to smoke.
7. Health Canada has a website, The Benefits of Quitting, available at: <http://www.hc-sc.gc.ca/hecs-secs/tobacco/quitting/road/benefits.html>.

Glossary

Amyloid Angiopathy:

A condition that involves the buildup of a particular protein (amyloid), which can accumulate in various parts of the body (e.g. in the brain or in the arteries bringing blood to the brain).

Antiphospholipid Antibody Syndrome:

A condition where people have significant antiphospholipids (phospholipids are fat molecules containing phosphorus; in some cases the body forms antibodies to these phospholipids) in their blood and one of the following: blood clots in veins or arteries, or a deficiency in blood platelets, or experience having frequent miscarriages.

Blood Cholesterol:

Amount of cholesterol circulating in our blood.

Blood Pressure:

A reflection of the pressure or force of the blood in your heart when the blood is forced into the arteries and a reflection of the resting pressure in your heart when it fills with blood.

Cardiovascular Diseases:

Diseases and injuries of the cardiovascular system: the heart, the blood vessels of the heart, and the system of blood vessels (veins and arteries) throughout the body and within the brain.

Coronary Artery:

The artery that provides oxygen rich blood to the heart muscle or myocardium.

Diabetes:

A disorder of carbohydrate metabolism.

Dietary Cholesterol:

Cholesterol found in some of the foods we eat.

Diastolic Pressure:

Representing the pressure when the heart relaxes; usually the bottom number in a blood pressure reading.

Factors that Increase Blood Pressure:

Emotions, pregnancy, smoking, the general environment, and medication.

Glossary - cont'd

Heart Attack:

Occurs when the oxygen rich blood supply from a coronary artery to the heart muscle, the myocardium, is severely reduced or blocked. The medical term for heart attack is myocardial infarction or MI.

High Blood Pressure:

In adults, without diabetes, is usually defined as a blood pressure that is consistently greater than 140mm Hg systolic pressure, or greater than or equal to 90 mmHg diastolic pressure.

High Density Cholesterol (HDL):

Often referred to as "good" cholesterol because it carries away the "bad" cholesterol from blood vessel walls. Higher levels are considered good; may help to protect us from atherosclerosis and subsequent heart disease.

Hydrogenated Fats:

Fats processed from liquid form to a solid or spreadable form.

Hypertension:

High blood pressure.

Low Density Cholesterol (LDL):

Often called the "bad" cholesterol but normal amounts needed by our bodies for cell growth and repair. Causes gradual buildup of plaque on walls of blood vessels; high levels contribute to the development of atherosclerosis.

Monounsaturated Fats:

Help to lower blood cholesterol, liquid at room temperature.

Omega-3 Fatty Acid:

A group of polyunsaturated fats may help to lessen the risk of heart disease and stroke.

Polyunsaturated Fats:

Liquid at room temperature, contain essential fatty acids your body cannot manufacture.

Saturated Fats:

Can raise blood cholesterol, solid at room temperature. Contribute to the development of atherosclerosis.

Glossary - cont'd

Stressors:

Situations that are considered stress-provoking.

Stroke:

A sudden loss of brain function. It is caused by the interruption of the flow of blood to the brain (an ischemic stroke) or the rupture of blood vessels in the brain (a hemorrhagic stroke) that causes brain cells in the affected area to die.

Systolic Pressure:

The pressure when the heart contracts and forces the blood into the aorta; the top number in blood pressure reading.

Trans Fatty Acids:

Made during hydrogenation, may increase blood cholesterol.

Triglycerides:

Most common form of fat found in our bodies; like "thick cream" in the blood and increases the tendency of the blood to clot.



Congratulations!

Well done!
**Congratulations on completing the
Heart Health Handbook!**

**Thank you for volunteering for the
Heart and Stroke Foundation of BC & Yukon
and for helping to achieve our vision of
generations free of heart disease and stroke.**

Heart and Stroke Foundation of BC & Yukon

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Revised: April 2008 (Original LeaderSkills Teleclass Module)

Clip the following list and post it on your fridge:



Heart Attack and Stroke List

Warning Signs of a Heart Attack

Warning Signs of a Stroke

What to do if Someone has a Heart Attack

What to do if Someone has a Stroke

keep the beat
VOLUNTEER



keep the beat
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