



This booklet is dedicated to Employee Wellness and the concept that everybody wants to:

**Be Healthy.....Live Longer**

Make it work for YOU! Take a look inside.

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# HEART DISEASE...THE #1 KILLER

## HOW IT HAPPENS

Although the onset of a heart attack often appears suddenly and unexpectedly to those affected, the conditions that cause it are in many cases developed over a period of ten to twenty years or longer. Coronary heart disease results from the blockage or the narrowing of the coronary arteries which supply blood containing oxygen and nutrients to the muscular tissues of the heart. In the vast majority of cases, this blockage can be caused by a progressive buildup of plaque deposits on the walls of the arteries. The plaque can either rupture or gradually reduce the area through which the blood flows. When the blood supply is inadequate, complications such as angina may occur. When there is a significant increase in the obstruction, sudden cardiac arrest or heart attack (myocardial infarction) involving damage to a portion of the heart muscle may occur. The narrowing or blocking of the arteries that supply blood to the brain can allow blood clots to form, resulting in a stroke.

## YOU CAN FIGHT IT - HERE'S HOW

The progression of coronary heart disease can be delayed or prevented by controlling the "Risk Factors;" these are the conditions and behaviors that



may lead to this disease. It is the largest single killer in Canada and the United States. Ideally, modification and control of these Risk Factors should start by developing positive health attitudes and lifestyles at an early age, the earlier the better. **Parents must be aware that they play a major part in this development.**

There are two categories of Major Risk Factors for heart attack and stroke: Those that can be controlled, and those that cannot. The more Risk Factors that are present, the greater the individual's chance of developing coronary heart disease and stroke.

### 1. Risk Factors That *Cannot Be Controlled*

- ♥ **Advancing Age** - Coronary heart disease rates increase with age. Over one half of the people who suffer heart attacks, and four out of five who die from a heart attack, are over age 65.

- ♥ **Gender** - Coronary heart disease is present more often in young men than young women. However, coronary heart disease is the leading cause of death in women after menopause.
- ♥ **Heredity** - There is an increased risk of coronary heart disease if a parent or sibling has experienced coronary heart disease before age 55 in men and/or 65 in women. African Americans have a higher risk of heart attack and stroke.

## 2. Risk Factors That *Can Be Changed* (**START NOW with a physical examination, and follow your physician's recommendations**)

- ♥ **Cigarette Smoking** is by far the leading, single cause of preventable death and the most dangerous Risk Factor of all. Fortunately, even after many years of smoking, the body will begin to repair the damage to the coronary arteries when smoking is stopped. In time, the risk of coronary heart disease will be reduced to the level of a person who has never smoked. Be good to yourself: Kick the Habit!
 
- ♥ **High Blood Pressure (Hypertension)** is a disorder that is estimated to be present in about one out of every four adults. Approximately 53% are undiagnosed and untreated because people who have this grave disorder often feel fine. For this reason, hypertension has been called the “silent killer.” A healthy blood pressure is 120/80mm.Hg. The higher the blood pressure, the greater the risk of stroke, heart attack, kidney failure and premature death. This condition needs to be evaluated and treated by a physician. Treatment involves lifestyle modification and drug therapy.
- ♥ **High Blood Cholesterol** and the other lipids are a type of fat made by the liver. Cholesterol is also found in foods containing saturated fat, such as: eggs, beef, pork, duck, organ meats, shellfish and hydrogenated vegetable oils. Low density lipoprotein (LDL), the so-called “bad” cholesterol, delivers cholesterol to the body. The high-density lipoprotein (HDL), the “good” cholesterol, removes cholesterol from the blood stream. The National Cholesterol Education Program recommends that total cholesterol levels be kept below 200 mg/dl to reduce the risk of coronary heart disease. High cholesterol is controllable. Care usually includes lifestyle changes that range from diet and vitamins to exercise and smoking cessation. Medications may also be prescribed.

- ♥ **Triglycerides** like cholesterol are a form of fat transported in the bloodstream. They are suspected of playing an important role in the process that causes arterial blockages. Several studies have found a clear association between elevated triglycerides and coronary heart disease. Usually, elevated levels of triglycerides can be reduced through lifestyle changes, particularly losing weight. Other useful measures include decreasing intake of foods high in sugar, cholesterol, saturated fats; eating more fiber-rich foods such as fruits and vegetables; decreasing alcohol consumption and exercising.
  
- ♥ **Lack of Exercise** and physical inactivity are indicated as major risk factors for cardiovascular disease. On the other hand, moderate levels of physical activity on a regular basis can provide significant health benefits. Some of these benefits are improved heart function, reduction of blood pressure, control of body weight, relief of stress, lower levels of harmful LDL type cholesterol and increased levels of beneficial HDL cholesterol. According to a Consensus Statement from the National Institutes of Health, children and adults alike should set a goal of accumulating at least 30 minutes of moderately intense physical activity (equivalent to brisk walking) on most, preferably all, days of the week.
  
- ♥ **Diabetes** When the amount or concentration of sugar in the blood is found to be too high, the diagnosis of diabetes is made. In some people the symptoms are mild or non-existent. It is estimated that about half of all the people with diabetes in the United States do not know that they have it. Yet, it is too dangerous to ignore. Under a physician's care the disease can be treated. However, even careful control of blood sugar levels does not entirely eliminate the increased risk of coronary heart disease associated with diabetes. For this reason, diabetics must make a concentrated effort to control the other risk factors.
  
- ♥ **Obesity** Recently issued guidelines have lowered the threshold at which people are considered overweight. The change was intended to highlight the significance of being overweight as a Risk Factor for coronary heart disease. Obesity also increases your risk of developing high blood pressure, stroke and Type II diabetes. The guidelines also recommend considering waist circumference as part of estimating risk due to overweight and obesity. A waist circumference of greater than 40 inches in men and 35 inches in women is considered abdominal obesity and an increased risk. Weight reduction is best achieved by a

combination of reduced caloric intake and increased physical activity.

Risk Factors can often reinforce each other. If a person has two or more Risk Factors, it is essential to avoid or reduce other risks. Your physician can help with this effort. For example, a number of new blood studies which include fibrinogen and the amino acid, homocysteine, may help to identify those people who are at an increased risk for coronary heart disease.

Other causes of cardiac arrest are electric shock (currents as low as 50 milliamperes for more than a second can cause ventricular fibrillation). Drug overdose, near drowning, toxic exposure and suffocation are other potential causes of cardiac arrest.

**Stroke:** The University of Cincinnati has developed a 3-part test to check for Stroke. One: Have the person smile, showing his teeth. Two: Ask him to close his eyes, extend his arms out in front and hold them there for 10 seconds. Three: Ask him to repeat a simple phrase such as "I went to the store and bought a loaf of bread." When the response to any one of the three tasks is abnormal, the person may be having a stroke. Do the same thing that you would do for a heart attack: Call 911 immediately.

Five major ways to prevent having a stroke: Lower your blood pressure, maintain healthy cholesterol levels, stop smoking, lose weight and exercise regularly.

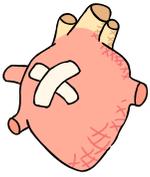
## WHAT TO LOOK FOR

### RECOGNIZING THE SIGNS AND SYMPTOMS OF A HEART ATTACK



When many of us think of a heart attack, we see the classic scenario of a person either suddenly struck down and unconscious, or a person suffering from the pain often described as "an elephant sitting on the chest." Under these conditions, we almost instinctively call for help. However, heart attacks do not always strike with severe pain and/or unconsciousness. Many heart attacks begin with early warning signs and symptoms. By recognizing these signs/symptoms and by seeking immediate care, cardiac damage and sudden death can often be prevented.

## SOME CONDITIONS TO LOOK FOR ARE:



A mild aching sensation or a discomfort or pressure in the center of the chest that increases with activity and diminishes at rest, can be symptoms of a heart attack. Other symptoms may include weakness, shortness of breath, sweating, nausea and dizziness that lasts for more than ten minutes. These conditions can often be confused with heartburn or indigestion. Pain may spread to the neck, shoulder, arms (especially the left arm), and jaw. Be aware that not all of the signs/symptoms are present in every attack, especially if the person is diabetic or elderly. Women tend to have less pronounced symptoms.

Expect the person to deny that he or she is having a heart attack, especially if the symptoms are mild. There is a tendency to delay seeking help until the symptoms become severe, and heart damage is imminent. If uncertain as to whether the discomfort is due to indigestion or heart attack, ask the following questions:

- ♥ Is the discomfort located in the center of the chest?
- ♥ Is it recurring?
- ♥ Has it increased in intensity?
- ♥ Does it get more intense with activity and then diminish with rest?
- ♥ Is there numbness, pain, or other uncomfortable sensations in one or both arms, the back, neck, or jaw?
- ♥ Does the person exhibit a cold sweat and/or unexplained shortness of breath?
- ♥ Has it lasted longer than ten minutes?

If the answer to any of these questions is “Yes,” seek immediate medical attention. In most areas of the country, this situation means a call to 911. After doing so, give the patient either 4 low-dose 81 mg. (baby) aspirins or 1 regular 325mg. (adult) aspirin to chew if he has no allergy to aspirin, no signs of stroke and no serious bleeding.

## **SURVIVAL REQUIRES WINNING A RACE AGAINST THE CLOCK... ACT FAST!**



### **BE PREPARED FOR A CARDIAC EMERGENCY**

**FOUR STEPS VITAL FOR SURVIVAL** - The following four steps must be taken as soon as possible:

1. **Phone First-** In a medical emergency such as cardiac arrest, heart attack and stroke, call for professional help as soon as you determine that the person is unresponsive. Also, if you get a “Yes” answer to any of the questions on pages 5 and 6, immediately call 911 or the appropriate emergency number for your area.
2. **Prompt CPR-** Begin CPR – (30 Compressions/2 Breaths. PRESS HARD/PRESS FAST) as soon as the need has been determined. CPR provides a supply of oxygenated blood to the brain while awaiting the arrival of an Automated External Defibrillator (AED) and professional help.
3. **Defibrillation-** Sudden cardiac arrest is usually caused by a condition known as ventricular fibrillation which results in a rapid, abnormal heartbeat. Blood flow to the brain ceases. This life-threatening condition can only be corrected by a defibrillator, a machine that sends an electrical shock into the heart in order to restore a normal rhythm. The sooner the heart’s natural rhythm is restored, the greater the person’s chance for survival. With every minute that passes after collapse, the person’s chance for survival diminishes by seven to ten percent. Therefore, the speed with which the defibrillation is performed is the primary determinant of the success of the resuscitative efforts.
4. **Advanced Care-** Begins with the arrival of Emergency Medical Personnel at the scene and continues with the arrival of the patient at the hospital. Care may include defibrillation, CPR, airway maintenance and cardiac drugs.

**NOTE: IN THE VAST MAJORITY OF CASES OF OUT-OF-HOSPITAL HEART ATTACKS AND CARDIAC ARRESTS, THE STRICKEN PERSON’S SURVIVAL DEPENDS UPON THE QUICK ACTION OF A LAY PERSON WHO CALLS FOR EMERGENCY ASSISTANCE AND BEGINS CPR. GREATER LEVELS OF EFFICIENCY AND MORE LIVES WILL BE SAVED WHEN THE PERSON ON THE SITE CAN ALSO PROVIDE THE THIRD STEP VITAL FOR SURVIVAL, DEFIBRILLATION.**

## **BUT BE CAREFUL**



### **BLOODBORNE PATHOGENS - UNIVERSAL PRECAUTIONS**

Pathogens are defined as any disease-producing micro-organism. They may be present in the bloodstream. Always be alert for the possibility of bloodborne disease transmission at the rescue scene. The Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and the Human Immunodeficiency Virus (HIV),

linked to the Acquired Immune Deficiency Syndrome (AIDS), are the three agents that are the greatest source of concern.

While none of these have been documented as having been transmitted during the administration of CPR, blood-to-blood transmission is possible with these viruses if either the patient or the rescuer has the disease. There is also a possibility of transmission if there is blood present in the saliva of the infected person, if there are any open cuts or sores in the mouth or throat area and/or if the blood borne pathogens come in contact with the mucous membranes of the non-infected person. Mucous membranes are thin layers of tissue that line all of the cavities of the body that open externally (mouth, nose, intestines), and they secrete mucous. As a result, there is at least, theoretically, a risk of transmitting these agents during Rescue Breathing or CPR. This “worst case” scenario may not be as great a cause of concern for the non-professional rescuer who in many cases will be assisting a family member. However, in every case, **“Universal Precautions”** must be followed whenever a rescuer is exposed to another person’s bodily fluids. **Universal Precautions** refers to a method of infection control in which all human blood and other infectious materials are treated as if they are known to be infectious for HIV, HBV and HCV.

Always, at a minimum, use latex or nitrile gloves whenever there is any potential exposure to blood or other bodily fluids. Additionally, a protective barrier device or other ventilation equipment should be used to eliminate mouth-to-mouth contact during the performance of CPR. Depending upon exposure potential, other personal protective equipment may be necessary.

**GOOD SAMARITAN LAWS:** While the laws vary among the individual provinces and states, the basic idea is to provide legal protection to rescuers who come to the aid of others in a medical emergency. The general rule in order to qualify for this protection is that the rescuer should act prudently and perform only those rescue activities for which he or she has been trained. For specific information on the Good Samaritan Laws in Canada refer to [www.e-law.org](http://www.e-law.org) or in the U.S. contact your state’s Department of Health.