

What is a heart attack?

The heart's muscles, valves and chambers pump oxygen-rich blood to all parts of the body and send oxygen-depleted blood back to the lungs to reload. Vessels carrying blood away from the heart are called arteries. Those that lead to the heart are veins.

When an artery is blocked, the tissue or organ it supplied is deprived of life-sustaining oxygen. When blood stops flowing to a part of the brain, a stroke occurs. If blood flow to a portion of the heart muscle is cut off, the result is heart attack.

These three conditions are often confused: a **heart attack** is an injury to part of the heart muscle due to sudden elimination of oxygen; **cardiac arrest** is when the heart stops beating due to failure of the electrical mechanism that controls it; and **heart failure** occurs when the heart is too weak to pump adequately, resulting in decreased blood pressure or fluid accumulation in the tissues.

Do many people have heart attacks?

Unfortunately, yes. Heart attacks are the most common medical emergencies today and, at 80,000 victims annually, the number one cause of death in Canada.

One in ten Canadians has some form of heart disease — that's 275,000 British Columbians and over 2.6 million people nationwide. Cardiovascular ailments kill twice as many people as cancer and five times as many as household or traffic accidents. And, although the incidence of heart attack and stroke is down for people under 65, more women suffer heart attacks and heart-related illnesses than just a few years ago.

How can I avoid having a heart attack?

First, consider your family history. If your parents or grandparents have had hypertension (consistently high blood pressure), stroke, arteriosclerosis (hardening of the arteries) or other cardiovascular illnesses, you're more likely to suffer these health problems than someone from a family with no heart disease.

Then, take a long hard look at your lifestyle. If you are sedentary, overweight, smoke and/or eat a

high-fat diet, you run a greater risk of heart disease — whether it follows from your family history or not. Genetic inheritance can't be changed, but the risk of heart disease (and other health problems) can be significantly lowered if you adopt a healthy lifestyle.

Don't smoke

Nicotine is a powerful stimulant. It makes the heart beat faster, work harder and use up more oxygen. At the same time, carbon monoxide in tobacco smoke lowers the amount of oxygen the blood can carry.

A pack-a-day smoker has twice the risk of heart attack as a nonsmoker. Smokers who suffer heart attacks have less chance for survival than nonsmokers. And smoking after a heart attack increases the risk of a subsequent attack.

The good news is, as soon as you stop smoking, the health risk starts to diminish. Ten years after quitting, it's about the same as if you had never started.

Keep your blood pressure in check.

Like the plumbing in a house, the body's circulatory system can tolerate elevated pressure for brief surges. But when high blood pressure persists, damage is likely. The heart, working harder to maintain the pressure, may enlarge and weaken. Strain on blood vessel walls may cause them to harden and become obstructed more rapidly, or to break and leak.

People with uncontrolled hypertension are four times as likely to have a heart attack. But hypertension rarely shows any symptoms until it's too late. The simple act of a yearly blood pressure check should be high on anybody's list.

Avoid cholesterol and saturated fats.

A diet heavy in red meats, eggs and dairy products is also high in calories, cholesterol and saturated fats. If cholesterol intake is excessive, it collects on the linings of blood vessels, causing them to thicken and harden. This can obstruct blood flow and cause a heart attack.

Emphasize foods that are low in cholesterol and saturated fats, such as poultry, fish, skimmed milk products, fruits, grains, nuts and vegetables. Egg yolks, the greatest single source of cholesterol, should be limited to three per week.

Watch your weight.

Hypertension, which can lead to heart attack or stroke, is two to four times more common in people who are overweight (ie who weigh more than 20 per cent of the ideal for their age, height and build).

Cut down on salt.

Excessive salt causes the body to retain water, increasing the fluid volume in blood vessels and turning up the pressure. Limit salt intake to less than a teaspoon a day. Be aware of the salt hidden in processed foods, such as cold cuts, canned soups and vegetables, TV dinners and snacks.

Exercise more and minimize stress.

A regular exercise program conditions the heart to beat slower, which helps lower blood pressure and reduce stress. A "fit" heart also pumps larger volumes of blood with each beat and doesn't have to pump as hard to get oxygen all over the body.

Choose aerobic exercises such as brisk walking, jogging, swimming, bicycling and other active sports. But unless you are sure you are fit, don't embark on a strenuous exercise program without consulting your doctor.

Blood pressure also drops when you relax. Be sure to make time for rest and leisurely activities. And if you don't know how, ask your doctor to help you learn to manage stress.

Moderate your alcohol intake.

Heavy drinking contributes to high blood pressure, raising the risk of heart attack. Limit alcohol consumption to a maximum of two ounces per day.



How can I tell if I'm having a heart attack?

Sensations of pressure, fullness, squeezing or pain in the chest (usually in the centre, not slightly to the left where the heart is actually located) are all heart attack warning signs. Pain may radiate to the shoulders, neck and down the arms, particularly the left. Sometimes the pain mimics indigestion, and feels like a gas bubble under the breastbone. Some victims also feel faint, dizzy, nauseated, short of breath and sweat profusely.

Symptoms may persist or subside quickly. In any case, **get help immediately**. Call an ambulance and your doctor. **The majority of heart fatalities take place at home during the first few hours after an attack simply because people wait too long to get medical help.** Even if the external signs of the attack disappear, it's important that damage to the heart and other tissues be assessed.

What is the treatment for heart attack?

Not so long ago, treatment for victims of heart attack was prolonged bed rest and not much hope.

Today, heart attack patients go home from the hospital in as little as one or two weeks. Advances in technology and emergency care have boosted the chances of surviving a heart attack and improved the possibility of returning to a full, active life afterwards.

Medication and surgery can limit or even reverse damage from heart attack. These include:

- oxygen, to protect the heart muscle;
- medicines which correct abnormal heart rhythms;
- drugs that block calcium uptake, to prevent damage to internal cell structure;
- beta-blocking drugs that prevent the heart from responding to stimuli that push it to overexertion;
- procedures that open blocked vessels or dissolve blood clots;
- by-pass surgery, where blocked or damaged arteries are replaced with healthy vessels from other parts of the body;
- and, in extreme cases, heart transplant.

What can I expect life to be like after a heart attack?

Heart attacks scare people. Some victims are anxious to change their living habits all at once.

Don't try to alter your entire lifestyle. Lasting changes need to be accomplished gradually. Isolate and avoid high stress events, and try to eliminate risk factors such as improper diet and tobacco smoking. Follow your prescribed treatment, take your medicine and, above all, learn to listen to your body.

A post-attack exercise program should also develop gradually, beginning with walking and working up to regular, aerobic activity such as tennis or cross-country skiing. Many cardiac patients fear exercise may bring on another attack. Actually, the risk of dying from heart attack while exercising is extremely low. In fact, the opposite is true: people who develop a regular training program after a heart attack are better equipped to avoid, and to survive, another one.

One more question... is sex safe after a heart attack?

After recovering, most heart attack patients can return to sexual activity as they would to any other part of normal life. Talk to your doctor to find out what is right for you.

led by your physician
and the British Columbia
Medical Association
to promote better health
care in BC.

BC Doctors.
A commitment to
good health.



ACADEMY OF MEDICINE BUILDING
1807 West 10th Avenue
Vancouver, B.C. V6J 2A9
Telephone (604) 736-5551

PROJECT
2000

Heart attack

