

**IMPORTANT**

**information for adults at high risk of a**

## **Heart Attack & Stroke**

**Reducing your risks for heart disease and  
stroke can save your life!**

**This information has been developed especially for adults with health conditions  
that increase their risk of having a heart attack or stroke**

## **Are you at high risk of having a heart attack or stroke?**

- ◆ Have you been diagnosed with atherosclerosis (hardening of the arteries)?
- ◆ Have you ever had a heart attack?
- ◆ Do you have angina?
- ◆ Have you had coronary bypass surgery or an angioplasty?
- ◆ Do you have high blood pressure?
- ◆ Do you have peripheral atherosclerosis (hardening of the arteries of the legs)?
- ◆ Have you ever had a stroke?
- ◆ Do you have diabetes?
- ◆ Do you have a parent or sibling who has had angina, heart attack or stroke?

If you answered yes to one or more of the above questions, you are at increased risk for a heart attack or stroke. Taking action now can decrease your risk of death and disability. Discuss your answers with your physician or other health care provider

## **What can you do to decrease your risk of having a heart attack or stroke?**

First of all, you must recognize and understand your health risks. This brochure outlines the steps you can take to improve your heart health and decrease your risk of having a heart attack or stroke.

## Quit smoking

If you smoke, quitting smoking is the single most important lifestyle change you can make to decrease your risk of a heart attack. Studies have shown a decreased death rate of up to 50% for individuals who quit smoking after their first heart attack. Smoking affects your heart in several ways, all of which are bad for your health.

- ◆ It causes blood vessels to narrow, lessening the flow of blood
- ◆ It thickens the blood so that it forms clots more easily
- ◆ It increases “bad blood cholesterol” (LDL) and decreases “good blood cholesterol” (HDL). (For more information on cholesterol, read on.)

Quitting smoking can be a challenge. Most people try to quit five or six times before they succeed. But don't be discouraged! There are many ways to quit smoking, and no single method works for everyone. Some people find aids such as a nicotine patch helpful in quitting smoking. If you are considering using a patch please ask your doctor or other healthcare professional about it. Remember smoking while on a nicotine patch can be hazardous.

Talk smoking cessation over with your physician, another health care professional, or contact the Alberta Lung Association for information on their smoking cessation programs.

They can give you more information and advice on how to approach the challenge and where you can get further support to succeed.

## Control high blood pressure

High blood pressure increases your risk of heart disease. The following steps will help to prevent high blood pressure.

- ◆ Maintain a healthy weight
- ◆ Eat a well-balanced, low-fat diet
- ◆ Exercise regularly, minimum of 3 times per week
- ◆ Have your blood pressure checked on a regular basis

Your blood pressure should be less than 140/90. If you have diabetes, your blood pressure should be lower than 130/80. If your blood pressure is not less than these targets, your physician may prescribe medication to keep it under control. When you are taking this medication, it is very important to take it exactly as prescribed. Even if you are “feeling fine,” don’t stop taking your medication.

## Keep your diabetes under control

If you have diabetes (either insulin-dependent or non-insulin-dependent diabetes mellitus), you are at a higher risk for heart disease than people who don’t have diabetes. If you have diabetes, it is very important that you:

- ◆ Measure your blood sugar levels as directed and keep them under control
- ◆ Maintain a healthy weight
- ◆ Exercise regularly
- ◆ Eat a well-balanced, low-fat diet
- ◆ Keep your blood pressure and cholesterol under control

## Get rid of that extra weight

Getting rid of those extra pounds can reduce your risk of heart disease and have a positive effect on your overall health. Reducing your weight can:

- ◆ Help to reduce your blood cholesterol levels
- ◆ Help to control high blood pressure
- ◆ Contribute to the healthy management of diabetes

If you are overweight, discuss a weight control program with your doctor or a registered dietitian.

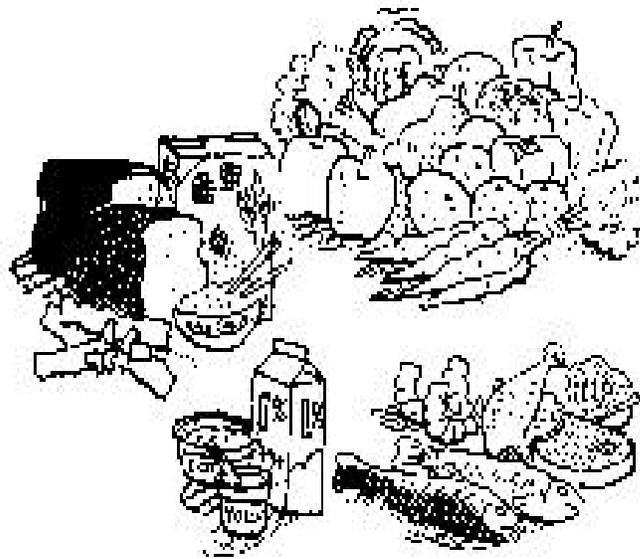
## Decrease the amount of fat in your diet

Eating foods that are high in fat raises your blood cholesterol levels and increases your likelihood of having a heart attack or stroke. If you have excess fat (cholesterol) in your blood, the arteries in your heart are more likely to become clogged with plaque which forms from the extra cholesterol. Reducing the amount of fat in your diet can help to reduce unhealthy blood cholesterol levels. To decrease fat intake, follow these easy principles:

- ◆ Avoid fried foods. Broil, bake, barbecue, poach, steam or microwave your meat and vegetables
- ◆ Reduce your daily meat consumption to six ounces of lean meat, about the size of two decks of cards. Trim off any visible fats
- ◆ Cut back on “add-on” fats such as butter, margarine, mayonnaise, cream cheese, sour cream, salad dressing, gravy, etc.

- ◆ Include more fruits and vegetables in your meals and snacks (at least 5 servings per day)
- ◆ Choose 1% or skim milk, yogurt, cottage cheese and low-fat cheese (less than 20% milk fat). Reduce the use of cream, coffee mate, and whole milk in your coffee and in cooking
- ◆ Check the labels of prepared foods for “hidden fats.” Snack foods such as cookies and crackers are often packed with extra fat. Look for products with less than 3 grams of fat per serving.
- ◆ Make an effort not to have your largest meal at the end of the day. Your body is slowing down and needs less food energy at this time of day. In fact, three quarters of your total daily calories should be consumed before suppertime.

**Let this illustration by your guide:**



## Exercise regularly

Regular exercise and increased physical activity will improve your health and your overall sense of well-being.



It will also:

- ◆ Help you to lose extra weight and keep your weight under control
- ◆ Help you to control high blood pressure
- ◆ Lower your levels of LDL (bad) cholesterol and triglycerides
- ◆ Increase your HDL (good) cholesterol level

Regular exercise means at least 30 minutes per day, four to five days per week. But, that 30 minutes doesn't all have to be at the same time. You could take a brisk walk 15 minute walk twice a day. Or you could walk for 15 minutes, then take a 15 minute bicycle ride.

**Remember:** Check with your doctor before you start any exercise program. If you experience chest pain, shortness of breath, or dizziness, don't push yourself - tell your doctor.

## **Reduce the stress in your life**

If you are under stress, it can be difficult to make changes in your lifestyle. Learning how to manage the stress in your life can make it easier to quit smoking, change your eating habits, and make other important lifestyle changes that will improve your health.

## **What if diet and exercise aren't enough?**

To reduce your risk of heart disease, you must reduce as many risk factors as possible. But sometimes lifestyle changes are not enough. Even if you take positive steps and feel better, it still may not be quite enough to reduce your risk of a heart attack or stroke.

If you answer yes to any of the questions at the beginning of this brochure, your doctor may request blood tests to determine your cholesterol and triglyceride levels. The higher the level of cholesterol in your blood, the greater risk of heart disease.

Many factors can affect cholesterol levels. For example, if you have recently had a heart attack, you will have to wait about six weeks before having your cholesterol levels checked.

Your doctor may prescribe medication if your cholesterol levels are high. When combined with the lifestyle changes outlined here, medication can help to reduce your risk of a heart attack or stroke.

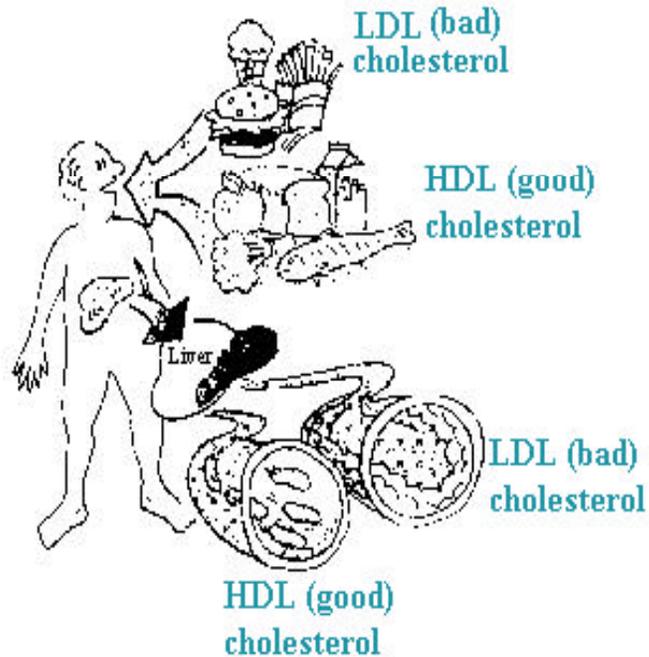
## What is cholesterol?

Cholesterol is a complex, fat-like substance which is produced naturally in the liver and is also present in foods that contain animal fat. The human body could not function without cholesterol. But, it is also the main component in plaque, a substance which forms on the linings of arteries. If the amount of cholesterol in the blood is not reduced, these plaques may cause blood vessels to narrow and become blocked. This condition is known as coronary artery disease, “hardening of the arteries,” or atherosclerosis. It is the cause of most heart attacks and strokes.

These are the main types of cholesterol:

- ◆ **HDL (High Density Lipoprotein) - “good” cholesterol** helps to protect your heart. A low level of HDL increases your risk of heart disease
- ◆ **LDL (Low Density Lipoprotein) - “bad” cholesterol** - A high level of LDL or triglycerides causes plaque to build up in the lining of the artery. This weakens the artery wall and reduces blood flow. If the wall breaks and bleeds, platelets will gather to stop the bleeding, closing off and possibly blocking the artery completely. The result is a heart attack or stroke.

- ◆ **Triglycerides** are a component of cholesterol. High levels of triglycerides can also increase risk of heart attack or stroke. If your triglycerides are already higher than normal, alcohol consumption will cause them to increase even higher. Discuss alcohol consumption with your doctor.



### Will you know if you have a “abnormal” cholesterol level?

Probably not. In fact, you may not find out that your cholesterol levels are abnormal until you have had an episode of angina or a heart attack. That’s why it is so important to have your cholesterol checked regularly.

## **What should your cholesterol level be?**

If you have already had a heart attack, have blockages in other blood vessels, or are diabetic, your LDL cholesterol should ideally be less than 2.5 (mmol/L).

Your triglycerides should be less than 2.0 (mmol/L), and your HDL cholesterol should be more than 1.2 (mmol/L). These levels are stricter / lower than those recommended for the general population.

## **What if your cholesterol levels are not normal?**

Your doctor will discuss these results of your blood tests with you and arrange for follow-up cholesterol testing if necessary. If the diet and exercise recommendations in this brochure are not enough to reduce your “bad” cholesterol, medication may be prescribed to assist in better managing your cholesterol levels and reducing your risk of heart attack. Remember: Do not change or stop medications unless directed by your doctor.

## **Where can you go for help?**

Making changes to reduce your risk of a heart attack can be difficult. As you try to make lifestyle changes to improve your health, you will need the support and encouragement of the health care team, your family and friends.

There are also many helpful books, brochures, pamphlets and programs available on heart health, including information on smoking cessation, exercise, as well as shopping for and preparing low-fat foods. Community resources such as health units, recreation and fitness centres, smoking cessation support groups, and weight loss programs can all provide support and advice. If you need more help, ask your nurse, doctor, or a registered dietitian for further information.

This patient information brochure was developed as part of the Alberta Clinical Practice Guidelines Program. This program promotes appropriate, effective and quality medical care in Alberta by supporting the use of clinical practice guidelines. The program is administered by the Alberta Medical Association under the direction of a multi-stakeholder steering committee.

The Epidemiology Coordinating and Research (EPICORE) Centre is a clinical trials and health outcomes research centre affiliated with the Division of Cardiology, University of Alberta  
[www.epicore.ualberta.ca](http://www.epicore.ualberta.ca)

Risk Factors	Your Targets	Date	
Blood Pressure			
Total Cholesterol			
LDL (bad) cholesterol			
HDL (good) cholesterol			
Triglycerides			
Next follow-up date			

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