

CHOLESTEROL AND HEART DISEASE

HOW TO CONTROL YOUR BLOOD CHOLESTEROL **AND** REDUCE YOUR RISK OF HEART DISEASE

Name: _____

Check where applicable

Eat less fat and cholesterol:

- Choose leaner meats, poultry, and fish.
- Have some meals with no meat. Use meat as a side dish rather than as a main course.
- Reduce meat portions to the size of a deck of cards.
- Eat no more than one egg yolk a week.
- Choose skim dairy products such as skim milk, cottage cheese with 1% M.F. on the label and yogurt with less than 1% M.F. on the label. For hard cheeses, choose cheese with less than 15% M.F. on the label and eat less.
- Cook with little or no fat.
- Use vegetable oils such as olive, canola, corn, sunflower, safflower, and peanut oil in small quantities.
- Avoid store-bought baked goods such as croissants, muffins, and donuts.

Eat more vegetables, fruit, whole grains such as oats or barley, and legumes such as dried peas, dried beans, and lentils.

- Control your weight.**
- Plan to be active 30 minutes or more every day.**
- Don't smoke.**
- Take your medication as prescribed.**

SOME IMPORTANT FACTS ABOUT HIGH BLOOD CHOLESTEROL AND HEART DISEASE

If you have high blood cholesterol, you are more likely to have a heart attack or a stroke.

You are at a higher risk for high blood cholesterol and heart disease if someone in your immediate family (parent, brother or sister) has high blood cholesterol.

High blood cholesterol is especially dangerous for people who smoke, and for people with high blood pressure or diabetes.

THE GOOD NEWS IS: YOU CAN REDUCE YOUR RISK OF HEART DISEASE.

Work with your doctor:

To control your blood cholesterol.

To control the other factors that can lead to heart disease.

CONTROLLING YOUR BLOOD CHOLESTEROL

WHAT IS CHOLESTEROL AND WHY DOES IT MATTER?

Cholesterol is a waxy substance made naturally in the body. Your body needs some cholesterol to work properly, and it can make all it needs.

Cholesterol may cause problems if your body makes too much or if you get too much in your food. The extra cholesterol can lead to blocked arteries. If an artery that supplies blood to your heart becomes blocked, a heart attack occurs. If an artery that supplies blood to your brain becomes blocked, a stroke occurs.

“GOOD” CHOLESTEROL AND “BAD” CHOLESTEROL

Not all cholesterol is harmful. There is a “bad” kind and a “good” kind. The “bad” kind is called LDL (**L**ow-**D**ensity **L**ipoprotein) cholesterol, and the “good” kind is called HDL (**H**igh-**D**ensity **L**ipoprotein) cholesterol. The bad cholesterol tends to block the arteries, but the good kind helps to clear out this bad cholesterol inside the arteries.

UNDERSTANDING YOUR CHOLESTEROL LEVELS

When you have your blood cholesterol checked, the lab will report on three types of cholesterol and also triglycerides. Triglycerides are the most common fats in the diet and in the blood. If you have a high reading of LDL or triglycerides, or a low reading of HDL, you may have a higher risk of having heart disease. Both cholesterol and triglycerides are measured in millimoles per litre, or mmol/L for short.

If you already have heart disease or other risk factors, your doctor may advise you to lower these levels even further. For example, the ideal level of LDL-cholesterol for people with heart disease is less than 2.5 mmol/L. The following table is a general guideline only.

TOTAL CHOLESTEROL

Ideal:	less than 5.2 mmol/L
Borderline High:	5.2 to 6.2 mmol/L
High:	6.2 mmol/L or more

HDL-CHOLESTEROL

(“Good” Cholesterol)

Desired:	more than 0.9 mmol/L
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LDL-CHOLESTEROL

(“Bad” Cholesterol)

Ideal:	less than 3.5 mmol/L
Borderline High:	3.5 to 3.9 mmol/L
High:	4.0 mmol/L or more

TRIGLYCERIDES

Ideal:	less than 2.0 mmol/L
Borderline High:	2.0 to 3.0 mmol/L
High:	more than 3.0 mmol/L



FOODS CONTAINING SATURATED FAT AND TRANS FATTY ACIDS

Saturated fat in the diet is an important cause of high cholesterol levels in the blood. Saturated fats are found especially in animal foods such as meat, butter, and cheese. They are also found in palm oil and coconut oil. Trans fatty acids are fats produced when unsaturated oils are hardened by hydrogenation or heated to high temperatures. They are found mostly in some margarines, shortening and foods made from them. Most store-bought baked goods, snack foods, cake mixes, and frozen dinners contain either saturated fats or trans fatty acids. You can see the fat in meats but not in these products, so it is best to avoid these products.

FOODS CONTAINING CHOLESTEROL

The cholesterol we eat can also add to blood cholesterol levels. However, since all foods that come from animals contain cholesterol, we can't avoid getting some cholesterol if we eat meat or dairy products. Egg yolks and organ meats like liver are very high in cholesterol.

SIX WAYS TO CONTROL YOUR BLOOD CHOLESTEROL

*If you have **any** questions about this information, ask your doctor.*

I. EAT LESS FAT AND CHOLESTEROL

Here are some tips for eating less fat and cholesterol:

MEAT, POULTRY AND FISH

- Don't make meat the centre of every meal. Centre some meals around whole grains and vegetables.
- Cut back on your meat portions. One portion is only the size of a deck of cards.
- Try meat substitutes more often like lentils and pea beans.
- When you buy meat, buy leaner cuts: round steak, rump roast, sirloin tip, lean stewing beef, and pork tenderloin that are not heavily "marbled" with fat
meat with the fat outside so you can trim it off
hamburger that is extra lean or lean

- Take the skin off chicken or turkey before you eat it.
- Eat fish more often. Choose cold water fatty fish such as salmon, mackerel, sardines, tuna or trout at least twice a week.

EGG YOLKS

- Eat no more than one egg yolk a week. You can eat as many egg whites as you like; they contain no cholesterol. Try to reduce the number of egg yolks you use in baking by using two egg whites instead of one egg.



DAIRY PRODUCTS

- Drink skim milk instead of whole milk, 2%, or 1%.
- Cut down on regular cheese and cream cheese because they are very high in fat. One slice of hard cheese may have as much fat as two teaspoons of butter! Read the labels, and look for cheese with 15% milk fat (15% M.F.) or less, such as partially skimmed mozzarella.
- Use cottage cheese with 1% M.F. on the label and yogurt with less than 1% M.F. on the label.
- Try low-fat yogurt on baked potatoes instead of butter or margarine. You can also use it as a topping for a fresh fruit dessert.

OILS AND VEGETABLE FATS

- Avoid store-bought foods such as donuts, sweet rolls and brownies, and snack foods such as chips, candy bars and buttered popcorn.
- Read labels. Avoid any product that contains “hydrogenated oil.” Beware of claims on food labels such as “cholesterol free” or “no cholesterol” or even “low in saturated fat.” Vegetable oils and margarines are high in fat, even though they are low in saturated fats and contain no cholesterol. Use less.
- On salads, try virgin olive oil with lemon juice or vinegar and add herbs and spices. Replace some of the oil with water or broth. Or use fat-free salad dressings.
- If you don't eat fish, you still need to make sure you get enough of the fats your body can't make. Try two tablespoons a day of freshly ground flax seed mixed with hot cereal.

HOW YOU PREPARE YOUR FOOD

- Use cooking methods that don't add fat: broil or roast on a rack to allow the fat to drip out of the meat.
- Don't fry or deep-fry.
- Use non-stick pans or use a non-stick cooking spray.
- Skim fat off stews and soup. (This is easier to do if they are chilled.)
- Instead of using butter, try lemon juice or salsa or low-fat sour cream or yogurt.

EATING IN RESTAURANTS

- Don't hesitate to ask how a dish is prepared. If it is high-fat, ask them to prepare it in a different way, or ask for a substitute.
- Choose foods that are steamed, roasted, broiled or baked. Avoid foods that are breaded or fried.
- Avoid foods with creamy sauces.
- Ask for fat-free salad dressing.
- Ask for sauces and dressings to be served on the side.

2. EAT MORE VEGETABLES, FRUIT, WHOLE GRAINS AND LEGUMES

According to Canada's Food Guide to Healthy Eating, we need:

- ✗ 5 to 10 servings of vegetables and fruit per day, and
- ✗ 5 to 12 servings of grains (oats, barley, brown rice, buckwheat, whole wheat) per day.

For the fruit and vegetable servings, you should have both fruit and vegetables. Aim for 3 fruit servings a day and 5 or 6 vegetable servings.

Here are some examples of typical servings:

Vegetables and Fruit

- ✗ 1 cup of raw vegetables
- ✗ 1/2 cup of cooked vegetables
- ✗ 1/2 cup of orange juice
- ✗ 1 apple, banana, or orange
- ✗ 1/2 cup of berries

Grains and Legumes

- ✗ 1 slice of whole grain bread
- ✗ 1/2 cup of oatmeal
- ✗ 1/2 cup of cooked brown rice
- ✗ 1/2 cup of pasta
- ✗ 1/2 cup of legumes

How to eat more vegetables, fruit, whole grains and legumes:

- For a few days, keep a record of how many servings of vegetables, fruit and grains you do eat. Then you'll know how many more you should eat.
- Eat fruit for snacks.
- Plan some meals around vegetables, whole grains and legumes.
- Experiment with new vegetables. Aim for variety.
- Eat foods that have been processed as little as possible:
 - bread and pastas made 100% from whole grain
 - raw or lightly cooked vegetables
 - fruit and vegetables with the skins on

Small, gradual changes are more likely to be permanent than big, sudden changes. Start with easy ones. Then when you are happy with one change, move on to the next.

3. CONTROL YOUR WEIGHT

Excess weight can lower the amount of “good” cholesterol in your blood and may raise the level of “bad” cholesterol and triglycerides. If you are overweight, losing extra weight will help control your blood cholesterol.

- Do not go on fad or miracle diets. The best way to lose weight - and to keep it off - is to eat less fat and fewer foods made from sugar and flour, and become more physically active. This will bring down your weight gradually, but successfully.

4. BE ACTIVE

Being inactive can lower the amount of “good” cholesterol in your blood. It can also result in higher levels of harmful cholesterol and triglycerides.

Being active has many benefits:

It helps increase your level of “good” cholesterol.

It helps you control your weight.

It helps you control your blood pressure.

It helps you control your blood glucose if you have diabetes.

It helps you relieve stress.

- Before you start an activity program, talk with your doctor about which activities are best for you.
- Plan to be active 30 minutes or more every day. Activities should be moderate in intensity. These activities make you breathe faster than normal, like when you're walking quickly or dancing.

But don't overdo it. Make sure that you can still talk easily.

- You don't have to do 30 minutes of activity all at once. You can work up to this by doing small amounts several times a day. Try to do at least 10 minutes of activity each time.
- Choose activities that you enjoy and that are right for you. The best ones are those that use the large muscles, especially those in the legs. When these muscles are working, they require more oxygen, so the heart has to beat faster. This way your heart becomes a stronger, more efficient pump.

Here is a sample of types of activities that are best: fast walking, biking, running, swimming and aerobics.

These activities are great, but they are not the only way to be active. Enjoy physical activities as part of your daily routine.

- Take the stairs instead of the elevator.
- Park your car or get off the bus a few blocks early, and walk the rest of the way.
- Walk around the block on your breaks at work.

5. DON'T SMOKE

Smoking can lower the amount of “good” cholesterol in your blood. Quitting smoking may help increase your “good” cholesterol. It also reduces your risk of having a heart attack or a stroke.

Some of the ways to quit smoking:

- Quit on your own; it works for many people.
- Join a smoking cessation program. Check with your doctor or your local health unit.
- Medication for smoking cessation (gum, patch or pill) is helpful for some people. Discuss this with your doctor.

6. IF YOU ARE TAKING MEDICATION, TAKE IT AS YOUR DOCTOR PRESCRIBED IT

For some people, changing what they eat and becoming more active are not always enough to control their cholesterol levels. If this happens to you, your doctor may suggest a stricter diet or recommend that you see a dietitian. Follow their advice. Your doctor may also prescribe medication.

- If your doctor gives you medication, take it just as it is prescribed. *Never* change or skip your medication, and *never* stop it without talking to your doctor.
- If you are having any side effects from your medication, talk with your doctor. You may need to switch to a different kind.
- Keep an up-to-date list handy of all your medications.

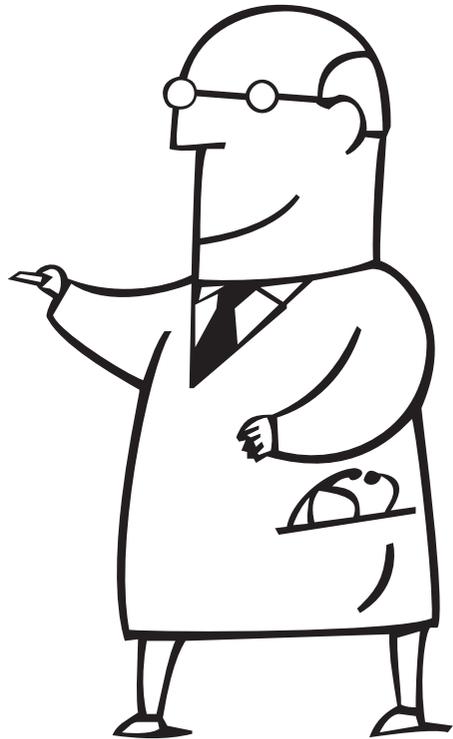
If you find it hard to remember to take your medication regularly, **here are some tips:**

- Buy a pill organizer at your drugstore. It is a small box with places to keep your medication for each day of the week. Fill it at the beginning of every week.
- Put your medication in a place that connects it to your daily routine, such as near your toothbrush or on the breakfast table. Keep your medication away from children at all times.

- Make a note on your calendar to get a refill of your prescription *before* it runs out.
- Take enough medication with you when you travel.
- Get support from your family. They can help to remind you to take your medication.

Even if you need to take medication, how you live is still very important. **Medication is not enough on its own. It does not replace a low-fat diet and regular physical activity.**

Work with your doctor. Make regular appointments, and if you miss one, call and make another one as soon as possible.



CONTROLLING THE OTHER FACTORS THAT CAN LEAD TO HEART DISEASE

In addition to high blood cholesterol, other factors can lead to heart disease. These are: smoking, high blood pressure, physical inactivity, diabetes, and overweight.

You can make a difference. The more risk factors you control, the lower your risk of heart disease and stroke. If you want to lower your risk of heart disease:

- Don't smoke.
- Control your blood pressure if it is high.
- Be active.
- Control your weight.
- Ask your doctor if you need your blood glucose checked.

Your doctor may suggest other pamphlets on each of these topics. Ask for the ones that interest you.

There are resources in your community to help you control your high blood cholesterol and other risk factors for heart disease. For more information, contact the organizations below (at no charge):

- Dietitians of Canada: www.dietitians.ca
- Heart and Stroke Foundation: 1-888-HSF-INFO (473-4636) or www.hsf.ca

To help you choose healthy food in the supermarket, you may want to read "The HeartSmart Shopper: Nutrition on the Run." This little book is available from the Heart and Stroke Foundation, along with a number of cookbooks including:

- "The Lighthearted Cookbook"
- "Lighthearted Everyday Cooking"
- "Heart Smart Cooking on a Shoestring"
- "Simply HeartSmart Cooking"
- "More HeartSmart Cooking"
- "HeartSmart Chinese Cooking"

"Canada's Food Guide to Healthy Eating" is another useful resource. It is available from Health Canada (check the "blue pages" of your phone book) or www.hc-sc.ca/nutrition

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