Coping with
CHOLESTEROL

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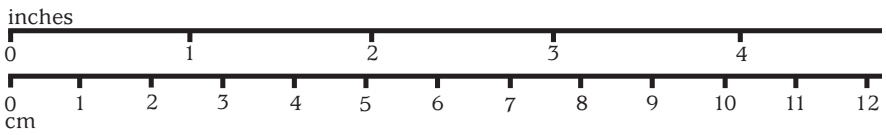
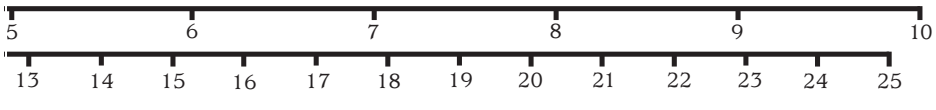
Heart Disease Risk Profile

	Date (day/mo/yr) :	/ /	/ /	/ /	/ /	Optimal Values: Without CVD or diabetes	Optimal Values: With CVD or diabetes	Goals
	Cholesterol (mmol/L)					< 5.0	< 4.2	
	Triglycerides (mmol/L)					< 2.0	< 1.7	
	LDL-cholesterol (mmol/L)					< 3.5	< 2.0 (CVD) < 2.5 (diabetes)	
	HDL-cholesterol (mmol/L)					> 1.2	> 1.2	
	Ratio Chol/HDL-C					< 5.0	< 4.0	
	Fasting blood glucose (mmol/L)					3.8 - 5.7		
	HbA1C					4.4% - 6.4%		
	Lp(a) (mg/dl)					< 25	< 25	
	Homocysteine (mmol/L)					< 9.0	< 9.0	
	hs CRP (mg/L)					< 1.0		
	Weight (kg)							
	Body Mass Index (BMI)					19-27		
	Waist circumference					men < 102 cm / 40 inches women < 88 cm / 35 inches		
	Blood pressure					< 130/85		

[< less than, > greater than]





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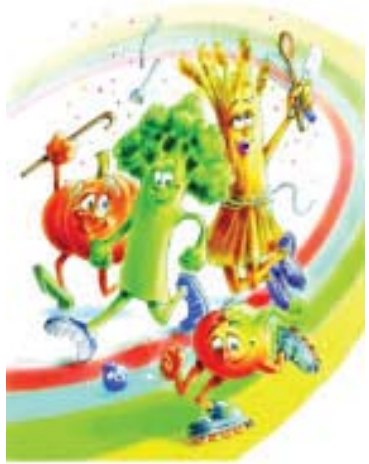
Introduction

Your doctor has asked you to read this booklet and to use it to help improve the aspects of your lifestyle that are increasing your risks of heart disease and stroke. If you have already been diagnosed with either cardiovascular or coronary heart disease, your doctor has asked you to read this booklet to reduce your risks of further complications.

This booklet contains information and useful tools that will help you to improve your diet, to enjoy regular physical activities as part of your life, and to achieve – and maintain – a healthy body weight. You will learn about the lifestyle changes that you need to make in order to improve your blood lipids and thereby reduce your risk of heart disease and stroke.

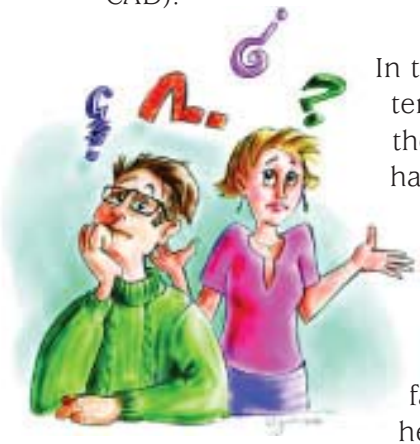


In addition, you will find valuable information and explanations about the effects of blood cholesterol and other blood lipids on your overall health, as well as the dangers of a blood cholesterol level that is too high. This booklet also contains information about the medications that are commonly prescribed to control levels of cholesterol and other lipids in the blood.

What you need to know about heart disease and blood lipids

Heart disease and stroke are the primary causes of death in Canada, in addition to being significant causes of disability for both men and women, and include:

- disease due to cholesterol build-up in the blood vessels in the heart (coronary heart disease or CHD);
- disease of other blood vessels (cardiovascular disease or CVD), which includes the vessels going down to your stomach, kidneys and legs (peripheral vascular disease or PVD); and disease of the blood vessels going to your brain (carotid artery disease or CAD).



In the 1960s, scientists coined the term “risk factors” to describe the personal traits and lifestyle habits that can contribute to our chances of being affected by heart disease and stroke. Some risk factors we have little or no control over (e.g., our age, gender or a family history of premature heart disease). There are other risk factors that we *can* control (e.g., diabetes, obesity, elevated blood cholesterol and triglycerides, elevated blood pressure, metabolic syndrome) or even change – in particular, our lifestyle habits.

Too much food, too little exercise and smoking are the lifestyle habits that are primarily responsible for heart disease and stroke.

Additional technical information about lipid and non-lipid risk factors, and about medications that are commonly prescribed to lower levels of blood lipids, is found in Appendix B of this booklet. You can stay up-to-date by reading new information as it is posted on the website www.copingwithcholesterol.ca.

Lipid risk factors for heart disease

Blood lipids are fat-like substances in the blood, and include cholesterol, lipoprotein carriers of cholesterol and triglycerides (TG). The levels of lipids in the blood are affected by a combination of factors, including diet, obesity, lifestyle habits, hormone levels, genetic factors and drug use, as shown in Table 1 (p.7).

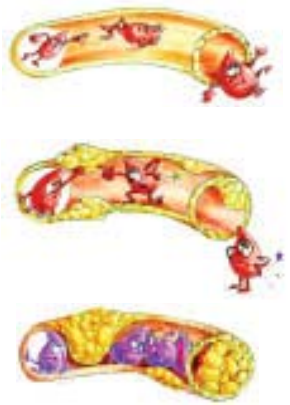
Cholesterol

Cholesterol is produced primarily by your liver, although some of the cholesterol in your blood comes from the foods you eat. The most important types of cholesterol in the blood are:

- low density lipoprotein cholesterol (LDL-C), and
- high-density lipoprotein cholesterol (HDL-C).

Remember: LDL = Lousy cholesterol and HDL = Healthy cholesterol

LDL-C causes a build-up of cholesterol on the walls of your arteries that is known as *plaque*. Eventually, it can become so thick that it narrows the space in which blood moves – the *lumen* – and slows down or even blocks blood flow. Blocks can also occur when a piece of plaque breaks off. *Angina* – a chest tightness or pain in your left arm or jaw – is caused by poor blood flow in the heart muscle.



HDL picks up cholesterol from the walls of the arteries and returns it to the liver for recycling or excretion. The more HDL-C you have in your blood, the better protected you are against the build-up of plaque in your arteries.

Because there are no symptoms of high LDL-C or low HDL-C, only a blood test can tell your doctor whether or not your blood cholesterol levels are putting you at risk for heart disease or stroke.

Triglycerides (TG)

Triglycerides (TG), are another type of fat in your blood-stream. The liver produces triglycerides from the foods that you eat. Foods that are high in fat, sugar and alcohol make the liver produce more triglycerides. Being overweight (especially if you carry too much fat around your midsection) also makes the liver produce more triglycerides. High TGs increase the chances of blood clots forming in your arteries and can also lower HDL-C (healthy cholesterol) levels.

Table 1. Factors that affect blood cholesterol and triglyceride levels

Raises LDL-C	Lowers HDL-C	Raises Triglycerides
High saturated fat diet	Smoking	Excess sugar and sweets
High intake of dietary cholesterol	Obesity	Alcohol
Obesity	Inactive lifestyle	Excess refined carbohydrate
Thyroid disease	High triglycerides	Obesity
Renal disease	Diabetes	Poorly controlled diabetes
Liver disease	Genetic factors	Inactive lifestyle
Genetic factors	Certain drugs	Genetic factors
Certain drugs		Certain drugs

Reducing your risks

What can you do to reduce your risk of heart disease? Start by knowing the facts. Identify your risk factors for heart disease with your doctor and eliminate or modify as many of them as you can. When you take responsibility and control your risk factors, you deal heart disease a serious blow. It's never too late to take control of your risk. A few changes in your lifestyle can lower your LDL-C and triglycerides and may even boost your HDL-C. Table 2 (p.9) shows the effects that lifestyle changes can make on the levels of lipids in your blood.

Taking charge of your lifestyle means that you:

- **Get moving!** by incorporating physical activities in your life;
- **Eat smart!** by making better choices in your diet; and
- **Shape up!** by losing excess body weight.

A healthy heart is up to you! Read on…

Get moving! – the effects of physical activity on blood lipids

Physical activities that are part of your daily routine as well as part of your recreational activities will help you achieve healthier blood lipid levels, especially in combination with weight loss. Table 2 (p.9) shows the rewards of increasing physical activity. For example, a daily physical activity program that includes 30 to 60 minutes of moderate to vigorous physical activities (fast walking, hiking, cycling, swimming, skating, cross country skiing, running) in combination with weight loss will increase HDL-C by 5-30%. The more time you spend being physically active, the greater the effect on your triglycerides. Weight loss in combination with physical activity can reduce triglycerides by 10-40%.

Section I of this booklet contains information on determining your readiness to increase your activity level, and how to choose an activity that is right for you and your lifestyle.

Eat smart! – dietary strategies to prevent heart disease

"Let food be thy medicine and medicine be thy food".
- Hippocrates

Compelling evidence from research into nutrition over the past thirty years indicates that there are three dietary strategies that are effective in preventing heart disease:

1. Eating a daily diet that consists mainly of unrefined plant foods - vegetables, fruit, legumes, whole grains nuts and seeds - and minimal amounts of refined food products.

Table 2. Effect of lifestyle changes on blood lipid levels

Lifestyle change	Effect on blood lipid levels (↓ lowers, ↑raises)		
Get moving!	LDL-C	HDL-C	TG
Increase physical activity in daily routine as well as recreational activities	↓		
Include moderate to high amounts of physical activity (aerobic exercise) such as fast walking, running, hiking, cycling, swimming, skating, or cross country skiing)	↓	↑	↓
Eat smart!			
Reduce calories, especially calories from refined sugars and carbohydrates	-	-	↓ 5 -20 %
Reduce saturated fats to less than 7 % of total calories	↓ 8-15 %	-	-
Replace some saturated fats with unsaturated fats – especially polyunsaturated fats	↓ 5-10 %	-	-
Reduce dietary cholesterol to < 200 mg/day	↓ 3-5 %	-	-
Limit alcohol	-	-	↓5-50 %
Add 25-40 grams/day of soy protein plus reduce saturated fats and dietary cholesterol	↓ 5 %	-	-
Add 2 grams/day of plant sterol/stanol esters	↓ 6-15 %	-	-
Add 5-10 grams/day of soluble fibre (e.g., psyllium)	↓ 5 %	-	-
Add omega-3 polyunsaturated fats (e.g., flax oil and salmon oil)	-	-	↓10-30 %
Shape up!			
Weight loss of 10 lbs	↓5-8 %	-	-
Weight loss, especially around the stomach, in combination with increased activity	↓	↑5-30 %	-
Weight loss through increased activity and reduced calorie/saturated fats/cholesterol intake	↓	↑	↓10-40 %

* note that these effects are not cumulative but they do work together to reduce your risks of CHD

2. Substituting non-hydrogenated unsaturated fats for saturated fats and trans fats.
3. Choosing more often those plant and animal foods that are sources of omega-3 fatty acids such as fatty fish, plant oils, and omega-3 enriched eggs.

Section II – Eat Smart! – contains information on improving your diet by assessing where you need to make changes, and how to make heart-healthy choices.

Shape up! - weight loss and blood lipids

Losing excess body fat and keeping it off will improve cholesterol and triglyceride levels and further reduce the risks of heart disease, diabetes and high blood pressure. Table 2 (p.9) shows how much LDL-C and triglyceride levels can be reduced by losing as little as four kilograms (10 pounds). Taking the next step and becoming physically fit while maintaining that weight loss can improve your HDL-C levels as well.

Section III contains information on identifying, achieving and maintaining a healthy body weight.

Staying on track

Once you have made some decisions about the healthy lifestyle changes you would like to make, it's time to put them into action.

The most important thing to remember is to make changes that you can live with.

Ask yourself if the change that you are making today is something that you can do for the rest of your life. If you can do it again tomorrow then you are on *track*!

Where to go for more help?

Visit the Coping with Cholesterol website at www.copingwithcholesterol.ca for regular nutrition and health updates as well as links to other websites that may be helpful to you as you take charge of your lifestyle and reduce your risk of heartdisease!

Improving your health

Your doctor is the person best able to help you plan your course of action to improve your health. S/he will also decide whether you need medication(s) along with your lifestyle changes. You can also ask your doctor to refer you to other health professionals to help you with any concerns about nutrition, physical activity or body weight that you may have.

Your Physician's recommendations:

_____

_____

_____

Diet:

❑ Appointment with dietitian

Date _____ Time _____ Place _____

Physical Activity:

❑ Treadmill test for exercise capacity

Date _____ Time _____ Place _____

❑ Appointment with exercise specialist

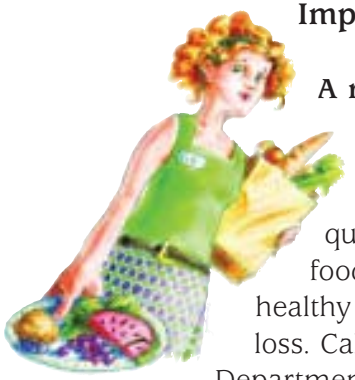
Date _____ Time _____ Place _____

Medication(s):

❑ Statin _____

❑ Fibrate _____

❑ Other _____



Improving your eating habits

A registered dietitian can help you to improve your eating habits. S/he can help you develop a personalized healthy eating plan and discuss any questions you might have about the foods you eat, a heart healthy diet, a healthy body weight and eating for weight loss. Call your nearest Public Health Department and speak with their registered dietitians if your doctor does not have a registered dietitian whom s/he works with on a regular basis. You can also go to the Dietitians of Canada website at www.dietitians.ca to find a dietitian in your area.

Improving your physical fitness

A certified physical activity or fitness professional can help you become more physically active. S/he can help you develop a physical activity plan and discuss any questions you might have regarding flexibility exercises, strength training, endurance activities, fitness programs and the best types of activities for strong muscles and bones and a healthy heart. If your doctor does not have a certified physical activity or fitness professional whom s/he works with on a regular basis, speak with the physical activity professionals at your local recreational facilities.

GET MOVING!

for your heart

In this section, you will learn if you are ready to increase your level of physical activity, the different components of a physically active lifestyle, and how to safely incorporate these components into your physical activity plan.

If all the benefits of physical activity could be put into a pill, it would be the most widely prescribed medication in North America.

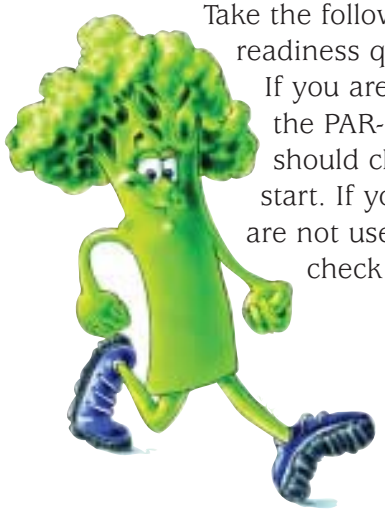
Your doctor may have already talked to you about the benefits of a physically active lifestyle and given you advice on how to exercise safely. Or maybe you have made the decision on your own. Whatever the reason, once you get moving with daily physical activities you will have:

- more energy
- less stress
- improved sleep
- fewer aches and pains
- improved insulin sensitivity and better blood sugar control
- toned muscles
- a positive self image
- a healthier heart!

Are you ready to be physically active?

Regular physical activity is fun and healthy. More and more people are starting to become more active in their every day life. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming more physically active. If you are not involved in regular physical activities, you cannot maintain your muscle mass or the fitness of your heart and lungs. In this section you will learn about the types of physical activities that are important for your heart's health and maintaining your independence as you age.

Any amount of daily physical activity, however small, is beneficial to your heart.



Take the following physical activity readiness questionnaire (PAR-Q©).

If you are between the ages of 15 and 69, the PAR-Q© will tell you whether you should check with your doctor before you start. If you are over 69 years of age and are not used to being physically active, check with your doctor first.

Table 3. Physical activity readiness questionnaire - PAR-Q© (Canadian Society for Exercise Physiology)

YES	NO	Question
		Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
		Do you feel pain in your chest when you do physical activity?
		In the past month, have you had a chest pain when you were NOT doing physical activity?
		Do you lose balance because of dizziness or do you ever lose consciousness?
		Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?
		Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
		Do you know of any other reason why you should NOT do physical activity?

If you answered NO honestly to all questions, you can be reasonably sure that you can start becoming much more physically active. Begin slowly and build up gradually. This is the safest and easiest way to go. Take part in a fitness appraisal – this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active. If you are not feeling well because of a temporary illness such as a cold or a fever – wait until you feel better. If your health changes so that you then answer

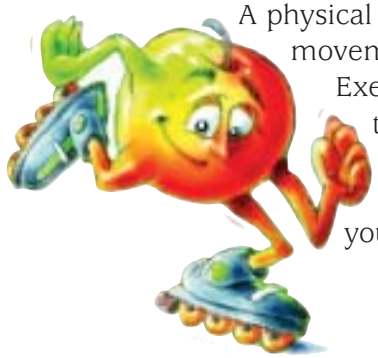
YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

If you answered YES to one or more questions, talk with your doctor by phone or in person ***before*** you start becoming much more physically active or ***before*** you have a fitness appraisal. Tell your doctor about this questionnaire and which questions you answered with a YES.

You may be able to do any activity you want – as long as you start slowly and build up gradually – or you may need to restrict your activities to those that are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice. Find out which community programs are safe and helpful for you.

Components of a physically active lifestyle

The best form of physical activity is the one that you are willing to stick with!



A physical activity is any body movement that you make. Exercise is a physical activity that follows a planned format with the goal of improving or maintaining your level of physical fitness.

Aerobic exercises / endurance activities

Endurance activities are the most important physical activities for improving your cardiovascular health. These activities are good for your heart, lungs and circulatory system. They raise your heart rate and make you breathe deeply. They make you feel warm. They help you to increase your energy and keep moving for longer periods of time. To get the best health benefits, try to do endurance activities for at least 10-15 minutes at a time. If you can't do 10-15 minutes when you start out, do what you can and work up to it. Begin with an activity that you can do comfortably. Try three times a week and progress to four to five times a week.

Choose activities that match your health and lifestyle goals.

Here are some activities to choose from: walking, cycling, swimming, dancing, cross-country skiing, hiking, etc. Once you start you may surprise yourself by how quickly you feel the positive effects!

Your doctor may prescribe a certain level of exertion for you to build up to, based on your health goals and specific concerns. When you feel comfortable, slowly increase the intensity of your activities. One way to estimate how hard you are working is by using your intensity of effort (p.16). The numbers on the left are simply a way of describing, on a scale of one to ten, how hard you feel you are working. For endurance activities, you should gradually work your way up to a level of 4-5. At this level you should feel that you are working at a somewhat hard pace. Some people might feel this level of intensity when they are walking quickly on flat ground while others might feel this level only when they are jogging. Both are right – only you know how much you are exerting yourself.

Table 4. Levels of intensity of effort

Level	Intensity of Effort	Walking pace
0	Nothing	Standing
0.5	Very, very weak effort	Very, very easy pace
1	Very weak effort	Very easy pace (slow walk)
2	Weak effort	Somewhat easy pace
3	Moderate effort – can walk and talk and sing a song!	Somewhat hard pace (fast walk)
4	Somewhat strong effort	Hard pace (fast walk pumping arms back and forth to increase pace)
5	Strong effort– can walk and talk but can't sing a song	Somewhat harder pace (as fast as you can walk on flat ground, pumping arms back and forth to increase pace)
6	Stronger effort	Very hard pace (fast walk up a gentle slope)
7	Very strong effort	Very hard pace (fast walk up a steep hill)
8 9	Can't talk in sentences, only a few words at a time.	Very, very hard pace (fast walk up stairs)
10	Very, very strong effort Maximum effort	As hard as you can go!

Flexibility activities

Flexibility activities help you to move more easily and keep your joints healthy. Take time to relax and stretch. Five to ten minutes a day of easy stretching will reduce potential injuries and increase the range of motion of your joints. Stretching releases tension and helps you cope with the demands of life! In addition, stretching will improve your posture and generally make you feel good all over. Warm up your muscles with 5 to 10 minutes of easy walking and then stretch your large muscle groups using slow stretching and holding techniques. Do the stretch slowly in a controlled fashion, without bouncing. Hold the stretch for 15-20 seconds. Take deep, slow breaths.

Many community centers and fitness clubs offer stretching classes. These classes are a great way to learn to stretch properly and they are good for your social life!

Muscular conditioning activities

Muscular conditioning activities challenge your muscles to become stronger. Even very small changes in muscle strength can make a big difference in your independence, especially as you age. To increase your muscle strength, you need to lift or push weights, and gradually increase the weight. You can use store bought hand and ankle weights or you can use home made weights such as empty, small water bottles filled with sand to varying weights. You can also use resistance bands (they look like big rubber bands) or the specialized weight machines at fitness centers. Avoid heavy weight lifting, especially if you have high blood pressure, diabetes or heart disease (angina). Aim for exercises that target all the major muscle groups, including arms, shoulders, chest, back, abdomen, and upper and lower legs. Focus on strengthening your stomach muscles. Try to include at least one strength workout a week. Always include a few minutes of light to moderate aerobic activity and easy stretching before and after your strength workout.

Talk to your doctor before you begin your strength-training program and make sure that you get proper instruction from a certified fitness professional. Many community centers and fitness clubs offer muscular strength and conditioning classes. These are a great way to improve your strength in the company of others!

Get moving! … but don't forget to drink up!

Once you've started on your exercise program, don't forget to drink plenty of fluids to replace what you may sweat out during exercise. Fluids are your body's natural cooling system. Water is your best choice if you are trying to lose weight. Bring a water bottle with you when you are exercising – and drink up to 1/2 cup (125 ml) of water every 15 minutes to replace sweat losses during your physical activity sessions, especially during spring and summer.
So drink when you're thirsty!

Table 5. Components of physical activity and improvement strategies

Component	Definition	How to improve
Endurance	Physical activities that raise your heart rate and breathing for an extended period of time are called "aerobics," "aerobic exercises," "endurance activities" or "endurance exercises." They improve the health of your heart, lungs and circulatory system.	Challenge your heart and lungs with endurance activities such as walking, cycling or swimming. These large muscle group activities are the most effective for maintaining the capacity of your heart and lungs.
Flexibility	Physical activities that involve gentle reaching and stretching keep your body limber and your joints mobile. They increase the range of motion at a joint or joints. These are called "flexibility" exercises.	Flexibility activities such as stretching (daily) or yoga will maintain your joint range of motion, keep your joints supple and mobile and reduce injury.
Muscle Strength	Physical activities that build muscle have a variety of names, including "strength training," "resistance training," "weight training" and "weight lifting." They make you strong enough to do the things you want to do in your daily life.	Physical activities involving lifting and carrying (such as housework and gardening) or strength training programs using free weights, machines, bands or your own body weight will increase your strength and help protect your joints.

Track your progress

Keep a weekly activity journal to record your walks and other types of physical activities throughout your day. Write down your daily physical activities, including the amount of time spent doing each activity. Use the physical activity log (on the inside back cover) to keep track of your progress.

Studies prove that lifestyle changes are easiest to do when you keep track of your progress!

Add up your minutes of physical activities. Compare this to the goals that you have set for yourself. Keep tabs on your energy level – it should be higher as you start to get into better physical shape. You may also notice additional benefits: you cope better with stress, you feel more refreshed from your sleep and your muscles not only feel stronger and toned they look it too!

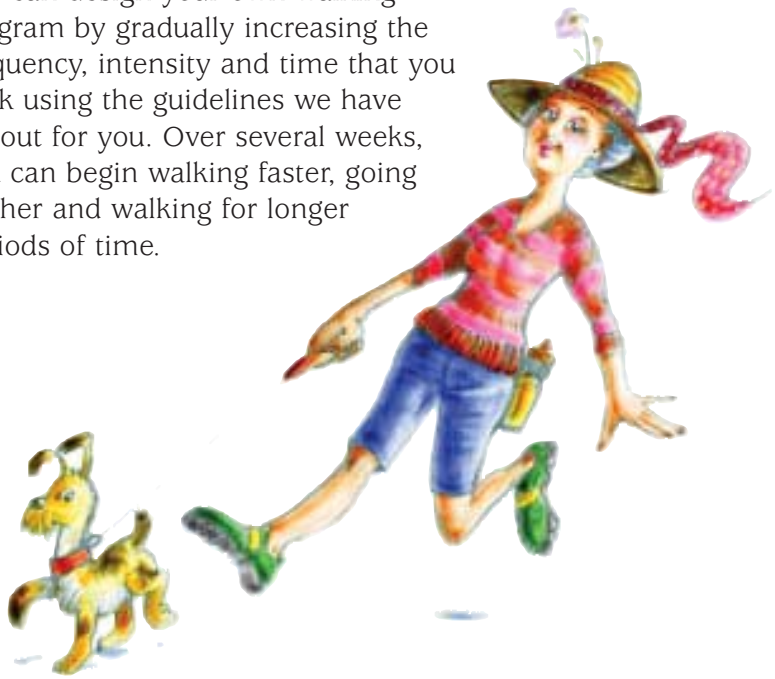
Get moving! walking plan

Walking is one of the safest physical activities to improve your health with the least risk to your muscles and joints. Studies have shown that people who walk are less prone to heart attacks, diabetes and other chronic health problems. Every little bit of walking counts. Ten minutes of walking three times a day is just as good as 30 minutes at one time. All you need are comfortable clothing and a pair of low-heeled, thick, flexible-soled shoes that fit well. These shoes will cushion your feet and absorb shock – making your walks a pleasure for your feet! Wear clothes that fit the season – layers of clothing in the cooler months let you peel off layers as you warm up. Light, cotton clothing in

the summer helps keep you cool. Choose shorts that don't chafe your thighs or try a pair of lycra/cotton form-fitting shorts or tights.

Get moving! ...walk anywhere and at any time – it all adds up to a healthier you!

You can design your own walking program by gradually increasing the frequency, intensity and time that you walk using the guidelines we have set out for you. Over several weeks, you can begin walking faster, going further and walking for longer periods of time.



The best exercise machine with fur ... is a dog

Table 6. Get walking! guidelines

Frequency – how often?	Intensity – how hard?	Time – how long?
Start by walking 3 days a week.	Start off slowly. Pace yourself. You should be able to walk and talk.	Start by walking 10-15 minutes at a time, even if it means reducing the intensity to a very easy pace (slow walk).
Progress to 5-7 days per week over the next few months.	You can slowly and progressively increase the intensity of your exercise sessions. Use the perceived exertion scale (p.16) to monitor the intensity of your efforts. Listen to your body. If you feel comfortable doing what you're doing, you're on target. STOP if you experience dizziness, pain or shortness of breath.	Add 5 minutes every week until you can walk at least 30-60 minutes every day. 
GOAL: to walk most days!	GOAL: to slowly and progressively increase the intensity of your walking to a 4-5 feeling of exertion (see perceived exertion scale on p.18).	GOAL: to build up to 30-60 minutes of continuous fast walking.

Get moving! Activity log

Day	F Frequency	I Intensity	T Time	Type of Activity	How Do I Feel Today?
MONDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
TUESDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
WEDNESDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
THURSDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
FRIDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
SATURDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50 min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹
SUNDAY	❑ 1 X ❑ 2 X ❑ 3 X	❑ Weak ❑ Moderate ❑ Strong ❑ Very strong ❑ _____	❑ 10 min ❑ 20 min ❑ 30 min ❑ 40 min ❑ 50min ❑ 60 min	❑Endurance ❑ Flexibility ❑ Strength	☺ 😐 ☹

EAT SMART!

Steps to healthy eating

In this section you will learn how to combine the principles of healthy daily eating to improve your blood lipids, help you attain a healthy weight, give you more energy to be physically active and thereby reduce your risks of heart disease, cancer, obesity and diabetes.

Following a heart-healthy diet every day means:

- choosing unsaturated liquid oils instead of saturated spreadable fats such as butter, shortening and hydrogenated vegetable oils;
- choosing more high fibre and soluble fiber rich foods throughout your day, including brightly colored vegetables and fruit and whole grain foods;
- using refined grain products, sugars and sweets sparingly;
- choosing lean proteins - especially plant based proteins such as legumes and small amounts of nuts and seeds - for most snacks and meals;
- choosing fatty fish, lean cuts of poultry and omega-3 enriched eggs more often than red meats;
- choosing low fat milk products and/ or fortified soy products;
- drinking fluids regularly throughout your day (e.g. soups, hot or cold beverages, water); and
- using alcohol in moderation, unless contraindicated.

Generally, your blood lipid levels should begin to improve two to three weeks after you begin to follow a heart-healthy diet.

How much they improve will depend on your present eating habits and blood lipid levels.

Step 1 – Assess your portion sizes

The first question you should ask yourself about your eating habits is: "How ***big*** are my portion sizes?"

Recent research has discovered that the sense of satisfaction from eating is the same regardless of the size of the plate, bowl, cup or the amount of food or drink actually consumed.

Using smaller dishes is an easy way to decrease portion sizes while still feeling that you have eaten enough.

Appropriate sizes for a set of heart-healthy dishes are:

Dinner plate	23 cm/ 9 inches or less in diameter (use the ruler on the lower edge of the inside cover of this booklet to measure your plate)
Soup bowl	250 mL/ 1 cup volume
Cereal bowl	250 mL/ 1 cup volume
Drinking glass	150 mL/ ⅔ cup volume
Mug	250 mL/ 1 cup volume
Dessert bowl	150 mL/ ⅔ cup volume
Wine glass	125 mL/ ½ cup volume

Step 2 – Rate your plate

Once you have downsized your dishes (and have your cutlery under control) you can ask yourself the second most important nutrition question: "What am I eating?" Rate your plate to see what your nutrition habits are now. This can help you see what you're doing right and where you need to make changes.

Read each statement carefully, and

- give yourself 2 points if the statement describes what you do every day;
- give yourself 1 point if the statement describes what you do sometimes;
- give yourself 0 points if the statement never applies to you.

	Your Points
1. I eat a variety of foods at each meal.	
2. I drink at least 8 cups of fluids (water, juice, milk, soup, etc) throughout my day.	
3. When I choose fruit and vegetables, I look for the most colourful ones.	
4. I eat good sources of fibre such as whole grain products, fruit, vegetables and legumes.	
5. I include low-fat sources of calcium such as milk, yoghurt or fortified soy beverages in my meals/snacks.	
6. I make sure that I have a source of protein at least twice a day (i.e., legumes, soy protein, nuts/seeds, lean cuts of meat, fish, poultry, or eggs).	
7. I make that sure I have a plant protein at least once a day (i.e., legumes, soy protein, nuts/seeds).	
8. I have vegetables or fruit with each meal/snack.	
9. When I choose fats/oils, I choose highly unsaturated liquid oils (i.e., flax oil, canola oil, soy oil, olive oil, safflower oil).	
10. I make sure the food I eat is safe (cold foods cold and hot foods hot).	
11. Throughout the day I never go more than 4-5 hours without eating.	
12. I wait until I am hungry before eating.	
13. At mealtimes I stop eating as soon as I feel full.	
14. I eat my meals and snacks in good company, away from the TV/computer.	
Total points	

Total your score and see how your eating habits rate.

Score results	
0 - 12	You need to make some changes now. Save your heart – read on.
13 - 19	Not bad, but you could make better choices. Read on to reduce your risk of disease.
20 or over	Wow! You have good eating habits. Read on to see if there are any other changes you can make!

Step 3 – Put heart-healthy eating into practice

Now you are ready to put your heart-healthy eating into practice! To make healthy eating easier, we have grouped foods based on the set of key nutrients that each provides: vegetables and fruit, whole grains, milk products and fortified soy products, protein rich foods, added fats and oils, sugars and sweets, alcohol, condiments and fluids.

Tables of serving sizes for each of these food groups are found on pages 63 and 64 of this booklet, and shown in familiar household units (1 slice of bread, 1 cup of milk) followed by the metric measure (in grams or millilitres). These serving sizes are simply a reference to help you see how the different amounts of foods that you eat add up to the total number of servings you need from each food group each day. This will also help you follow your eating plan (Step 4, p.55) set out by you or your dietitian. Choices from

each food group are rated as "great," "good" or "choose rarely," based on the nutritional value they hold for you. The shopping and preparation tips, label reading tips and "The dietitian's kitchen switches" will help you to make better choices all the way from the grocery store to your plate. A table of equivalent measures is also provided in Appendix D (p.84).

Fibre charts are included for the plant foods (vegetables and fruits, grain products and plant proteins - tables 11, 12, & 13). Choosing foods that are higher in fibre or "roughage" will help you avoid constipation, haemorrhoids and diverticulosis. Foods richest in the soluble type of fibre will help to lower your triglycerides and LDL-C. A high fibre diet may also help to control your blood sugar (good for diabetics), reduce your risk of cancer and keep your body trim by making you feel more full on less food.

Recipe substitutions are found in Appendix E (p.85), and will help you adjust your favourite recipes. Appendix F (p.86) contains a guide to reading food labels that will help you make smart choices when shopping.

Let's get started!

Eat smart! Use heart-healthy fats and oils.

A diet high in fat, particularly saturated and trans fats, raises your blood lipids, especially total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C) and triglyceride (TG) levels. Table 7, p.29 and p.30 lists the effects of various fats on blood lipid levels. Replacing less healthy fats with healthier unsaturated fats can help lower TC, LDL-C and TG levels (see also Table 2, p.7).

Fat and oils add taste and enjoyment to food. They are high in calories so use them in small amounts.

Table 7. Types of fats in food, effects on blood lipid levels and food sources

Type of fat	Effect	Food source
Saturated	Raise LDL-C ☹	Meat, poultry, butter, lard and milk or milk products. Palm oil, palm kernel oil, coconut oil and cocoa butter (tropical fats and oils) are highly saturated vegetable oils found mostly in baked products such as muffins, cookies and crackers.
Trans	Raise LDL-C Lower HDL-C ☹	Shortening, partially hydrogenated margarines, most processed foods (commercial cookies, biscuits, waffles, potato chips etc.) and fast foods.
Polyunsaturated	Lower LDL-C (when they replace saturated fats in your diet) ☺	Safflower, corn, soybean, sun flower and sesame oils, and the soft tub margarines made from these oils.
Omega–3	Lower TG ☺	Fatty fish including albacore tuna, salmon, mackerel, herring and fish oils. Plant oils including flaxseed, canola, soy and walnuts. Ground flaxseed, walnuts, wheat and oat germ, roasted soybean kernels and sprouted soybeans.
Monounsaturated	Lower LDL-C (when they replace saturated fats in your diet). May also help to maintain good levels of the protective HDL-cholesterol. ☺	Olive oil, canola oil and nuts. Margarines made from olive and canola oils.
Cholesterol	Raises LDL-C ☹	Dietary cholesterol is found ONLY in foods from animals (i.e. eggs, dairy products, meat, poultry and fish and shellfish). Plant foods such as fruits, vegetables, vegetable oils, grains, cereals and nuts and seeds DO NOT contain cholesterol.

*the familiar form "calorie" is used throughout this booklet (rather than the technical terms kilocalorie or Calorie)

Trans fats are made when a vegetable oil is (partially) hydrogenated to make it into a more solid fat (such as shortening or some margarines).

Choose heart-healthy fats and oils:

Great choices	Good choices	Choose rarely*
Canola, flax, soy, safflower, sunflower, olive, corn, sesame, walnut and peanut oils Salad dressings made from these oils Avocado, olives All nuts and seeds	Non-hydrogenated soft margarine (with modified palm and palm kernel oils) Mayonnaise Light cream cheese Light sour cream	Hydrogenated margarines, butter, shortening, lard, suet, beef tallow, coconut oil Regular sour cream and cream cheese Commercial dips Creamy salad dressings Gravy

* Choices in this column are high in saturated fat, raising LDL-C levels.

Shopping and preparation tips:

Avoid prepared foods that contain hydrogenated or partially hydrogenated oils. **Choose non-hydrogenated margarines and cooking oils made from heart-healthy plant oils that are high in polyunsaturated and monounsaturated fat.** Because heat and light break down these oils, turning them rancid and destroying their flavour, buy them in small amounts and store them in a cool, dark place.

Invest in a re-usable spray pump bottle you can fill with your favourite heart-healthy oil, and use it to oil your baking pans and grill, for stir-frying, and for other cooking where a light film of oil is needed.

Table 8. Fat composition of commonly used spreads

Natural hazelnut butter	7	75	14	4
Natural almond butter	9	65	22	4
Avocado	16	62	13	9
Natural peanut butter	17	46	32	5
Regular peanut butter	21	48	26	5
Light cream cheese	57	31	4	8
Regular cream cheese	63	29	3	5
Processed cheese spread	63	29	3	5
Mayonnaise	15	27	54	4
Low calorie mayonnaise	17	23	55	5

Table 9. Fat composition of nuts and seeds

Hazelnuts	8	78	9	5
Pecans	9	57	30	4
Almonds	8	64	24	4
Walnuts (English)	10	14	72	4
Flax seeds	10	21	66	3
Sunflower seeds	11	19	67	3
Pistachio	12	52	30	6
Mixed nuts	14	62	21	3
Sesame seeds (or tahini)	14	38	44	4
Macadamia nuts	16	78	2	4
Peanuts	17	46	32	5
Cashews	20	59	17	4

SATURATED FAT (%)
MONO UNSATURATED FAT (%)
POLY UNSATURATED FAT (%)
OTHER FATS (%)

*other fats may include glycerol and other fatty substances

Table 10. Fat composition of commonly used dietary fats and oils

	SATURATED FAT (%)	MONO UNSATURATED FAT (%)	POLY UNSATURATED FAT (%)	OTHER FATS (%)	omega-3 PUFA (%)
Safflower oil (high oleic)	6	75	14	5	
Safflower oil (high linoleic)	6	14	75	5	
Canola oil	6	56	23	12	3
Walnut oil	9	23	53	10	5
Flaxseed oil	10	26	16	48	
Linola oil (yellow-seeded flax)	10	18	70	2	
Sunflower oil (< 60% linoleic)	10	45	40	4	
Sunflower oil (> 60% linoleic)	12	19	66	3	
Corn oil	13	24	58	1	4
Olive oil	14	74	7	1	4
Soybean oil	15	24	55	6	
Sesame oil	14	40	42	4	
Vegetable shortening*1	26	43	19.5	1.5	10
Non-hydrogenated soft margarine*2	14	42	33	6	5
Hydrogenated hard margarine*1, 2	16	48	31	4	
Peanut oil	17	46	32	5	
Salmon oil*3	20	29	8	32	11
Palm oil	49		37	9	4
Butter*3	62		29	4	5
Palm kernel oil	82		11	2	6
Coconut oil	86		6	2	6

*1 also contains trans fatty acids from hydrogenation process

*2 a mix of oils, therefore values are approximate

*3 also contains cholesterol

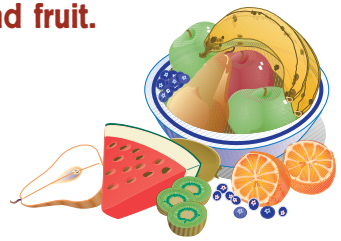
The dietitian's KITCHEN SWITCHES to heart-healthy fats and oils:

- ✓ Replace butter and shortening in most baking recipes with non-hydrogenated margarines or vegetable oils (use 150 mL or 2/3 cup of your favourite vegetable oil for each 250 mL/ 1 cup of solid fat called for in the recipe).
- ✓ Replace cream cheese with natural nut butters as a spread for toast.
- ✓ Replace creamy commercial salad dressings and mayonnaise with salad dressings made with recommended oils or make your own!

Quick recipe tip – Vinaigrette Dressing

A healthy and easy vinaigrette can be made by combining 90 mL (6 tbsp) of vinegar (or lemon juice), 45 mL (3 Tbsp) olive oil, 2.5 mL (½ tsp) Dijon mustard, 2.5 mL (½ tsp) sugar, pepper to taste and adding one minced garlic clove (optional). Shake well before using and enjoy.

Eat smart! Eat more vegetables and fruit.



The vegetables and fruit food group includes all vegetables and fruit whether fresh, frozen or canned. Vegetables and fruit are great sources of vitamins A and C.

Fruit and some vegetables are good sources of soluble fibre, which can help reduce your LDL-C.

Vegetables are the best choice if you are trying to maintain or lose weight since most vegetables have few calories and can be eaten as desired. Due to their lower sugar content, we suggest more servings of vegetables than fruit every day.

Choose vegetables more often than fruit:

	Great choices	Good choices	Choose rarely
Vegetables	Fresh, frozen or canned vegetables Tomato or vegetable juices/ cocktails	Avocado and olives in very small amounts	Vegetables prepared with butter, cream or sauces Deep fried potatoes or other vegetables Pickled vegetables
Fruit	Fresh fruit Unsweetened fruit juices Canned fruit in its own juice	Fruit juices with added concentrated juices Dried fruit Canned fruit in light syrup	Fruit drinks with added sugars Canned fruit in medium or heavy syrup

Shopping and preparation tips:

Look for dark green and orange/red coloured vegetables such as spinach, broccoli, carrots, red peppers and sweet potatoes. **Choose the bright orange colored fruits** such as cantaloupe, mangoes and citrus fruit more often – they are all rich in antioxidants which help to reduce your risk of heart disease and cancer.

Cook vegetables by steaming, stir-frying (in a non-stick wok or skillet), simmering or microwaving. Steaming retains most of the nutrients because the vegetables do not come into contact with the cooking liquids.

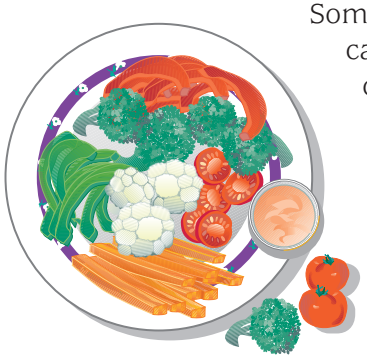
Choose 100% pure fruit and vegetable juices. Fruit drinks, cocktails, beverages and punches have added sugar, contain very little real fruit juice and contain few vitamins and minerals compared to real juice. Don't be fooled by products that claim they have real fruit or fruit juice added. Look at the

ingredient list: the further down the list the fruit/fruit juice is, the less of it there is in the product. Beware of products made with concentrated fruit juices or fruit puree; they are often high in sugar and low in nutrients.

Keep in mind that unsweetened fruits and fruit juices can contain as much natural sugar as sweetened fruit drinks and regular soft drinks.

Any form of sugar can raise your triglyceride levels.

If you want less sugar, dilute your fruit juice with water, choose a vegetable juice or a piece of fruit instead. If you are trying to lose weight or if your triglycerides are elevated, replace fruit - especially dried fruit and fruit juices - with vegetables and vegetable juices.



Some vegetables are higher in calories, including beets, carrots, green peas, squash, turnip/rutabaga, parsnips, potatoes and sweet potatoes. Stick to a 125mL/ ½ cup serving of these if you have diabetes, elevated triglycerides or are trying to lose weight.

Table 11. Fibre content of vegetables and fruit

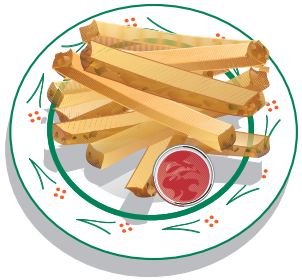
Fruit and Vegetables	Soluble fibre (g)	Total fibre (g)
Fruit (1 medium fruit)		
Apple	1	4
Banana	1	3
Blackberries (125mL/ ½ cup)	1	4
Citrus fruit (e.g., orange, grapefruit)	2	2-3
Nectarine/peach	1	2
Pear	2	4
Plum	1	1.5
Prunes (50mL/ ¼ cup)	1.5	3
Vegetables (125mL cooked)		
Broccoli	1	1.5
Brussels sprouts	3	4.5
Carrots	1	2.5

The dietitian's KITCHEN SWITCHES to more vegetables and fruit:

- ✓ Replace fruits canned in syrup with those packed in their own juice or water.
- ✓ Keep frozen berries on hand for quick and easy desserts.
- ✓ Cut up vegetables on the weekend and keep them covered in the refrigerator for up to one week – great for snacks and stir-fries!
- ✓ Oven bake French fries (and/or onion rings) instead of frying them.

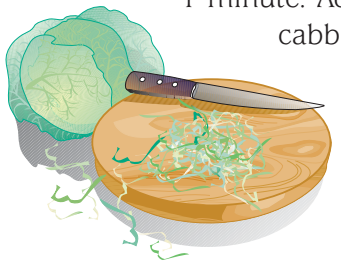
Quick recipe tip:
Easy potato wedges with only a fraction of the fat!

Preheat oven to 400 degrees Fahrenheit. Lightly spray or brush a cookie sheet with vegetable oil. Scrub a medium potato and microwave on high until just underdone (5–7 minutes). Cut into wedges and place skin side down on cookie sheet. Lightly brush or spray the wedges with some vegetable oil and sprinkle some seasonings and/or sesame seeds on top (your choice). Bake in preheated oven for 15 minutes or until golden. Makes 1 serving of vegetables. Yummy!



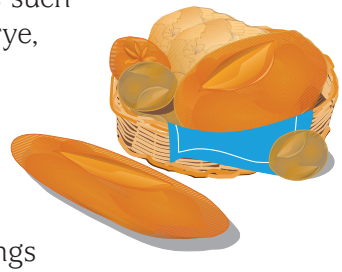
Quick recipe tip: Two-cabbage ginger stir fry

In small dish mix together 15 mL (1 tbsp) vinegar, 15 mL (1 tbsp) water, 5 mL (1 tsp) soy sauce and 5 mL (1 tsp) cornstarch. In wok or heavy skillet, heat 15 mL (1 tbsp) vegetable oil over medium heat. Add 5 mL (1 tsp) ground ginger and 1 small chopped onion; stir-fry for 1 minute. Add 500 mL (2 cups) of thinly sliced cabbage (red, green or a combination of both) and stir-fry until tender, 3 to 5 minutes. Pour in soy sauce mixture and stir-fry about 1 more minute. Serve hot! Makes 3 vegetable servings. Very tasty!



Eat smart! Choose whole grain products more often.

This food group includes all grains such as wheat and buckwheat, barley, rye, oats, rice, millet, sorghum, kamut, quinoa, amaranth, rye berries and spelt, as well as products made from these grains such as breads, couscous, breakfast cereals, crackers, muffins, dumplings and cookies.



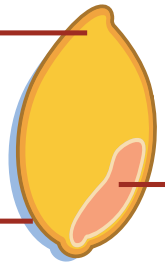
Many popular grain products are refined. This means that individual grains have been stripped of their outer layers, making them quicker to cook and easier to chew. These refined grains are then enriched with the addition of key nutrients that were lost in the processing (e.g., B vitamins, iron, folic acid, fibre). This enrichment, however, does not replace all of the nutrients that were originally lost in the processing (e.g., fibre).

Beware of serving sizes of grain products. Popular items such as large muffins and bagels are often equal to 3-4 servings of grain products each.

Go for the Whole Grain

Endosperm
- Provides energy
- Contains Carbohydrates, protein

Bran
- "Outer shell" protects seed
- Contains Fibre, B vitamins, trace minerals



Germ
- Nourishment for the seed
- Contains Antioxidants, vitamin E, B vitamins

adapted from www.generalmills.com/whole

Choose whole grains more often:

	Great choices	Good choices	Choose rarely
Breads & other grain products	100% whole grain breads (e.g., whole wheat, cracked/flaked wheat, bulgur, wheat berries/groats, whole rye, cracked/ flaked rye, rye berries, whole oats, rolled oats, steel cut oats, oat groats, flaked barley, cornmeal, quinoa, cracked/flaked triticale, triticale berries, amaranth, kasha, pearl millet, whole grain spelt)	Enriched refined grain breads (e.g., white, brown, buck wheat, matzo, oatmeal, rye, pumpernickel, sour dough, injera, pita, french, italian)	Croissants
Cereals hot or cold	Whole grain and a source of fibre (≥ 2g of dietary fibre/sv) using non-hydrogenated vegetable oils as fat source. May also include wheat bran, wheat germ, oat bran, ground flax seed as added fibre sources	Refined grains and low in fibre cereals (eg., cream of wheat) containing non-hydrogenated vegetable oils and palm or palm kernel oils as the fat source	Sugar coated cereals and granola cereals containing coconut oil, cottonseed oil or hydrogenated vegetable oils as the fat source
Rice & pasta	Brown rice, wild rice, whole wheat pasta	White, basmati, parboiled, short or long grain rice, regular pasta, egg noodles, rice noodles, wheat noodles, buck-wheat noodles, instant rice	Rice or pasta made from commercial mixes or with added cream, butter or cheese sauces
Crackers, bread sticks, crisp breads, rice cakes, dry flat-breads	Products made with whole grains and a source of fibre (≥ 2g of dietary fibre/sv) containing non-hydrogenated vegetable oils (< 3g of fat/sv)	Unsalted crackers and plain rice cakes containing non-hydro-genated vegetable oils and palm or palm kernel oils	> 3g of fat/sv and/or containing coconut oil or hydrogenated vegetable oils
Muffins, cookies & baked goods	Products made with whole grains and non-hydrogenated vegetable oils	Products made with refined grains and non-hydrogenated vegetable oils, palm or palm kernel oils	Products made with shorten-ing, lard, suet or butter. Cream-filled cookies short bread, pastries, pies, dough-nuts, sweet rolls, fast food muffins

≥ greater than or equal to, ≤ less than or equal to, < less than, > greater than
sv = serving

Shopping and preparation tips:

Whole grain products are usually high in fibre and low in fat. Keep them that way by using only small amounts of added fats like mayonnaise, butter, margarine, sauces and spreads. Look for **whole grain flours** (whole wheat flour, whole oat flour, whole rye flour, whole rice flour) or **whole grains** (rolled oats, flaked rye, cracked wheat) as the first ingredient in the ingredient list when you buy breads, crackers, muffins or other baked goods.

Baked goods such as breads, bagels, rolls and homemade muffins are lower in fat than croissants, store-bought muffins, most crackers and baked desserts. Avoid products made with hydrogenated or partially hydrogenated vegetable oils or shortenings.

Grains are also rich in soluble fibre (the kind that lowers LDL-C and triglycerides) and insoluble fibre (the kind that helps prevent constipation and protect against some types of cancer). In some grains the fibre is mainly insoluble (e.g., wheat, corn) and in others it is mainly soluble (e.g., oats, barley). To help lower your LDL-C and triglycerides, choose grains products rich in soluble fibre such as barley, oatmeal and psyllium or ground flax seed-enriched cereals more often.

To get the benefit of flax seed you need to grind it in a blender or coffee grinder. You can also buy it in its ground (milled) form.

Ground flaxseed is high in soluble fibre and omega 3 fatty acids.

Table 12. Fibre content of grain products and seeds

Grain products and seeds	Soluble fibre (g)	Total fibre (g)
Grain products (125mL/1/2 cup)		
Barley	1	4
Oatmeal	1	2
Oat bran	1	3
Seeds (15 mL/1 Tbsp)		
Psyllium - Metamucil®	2.4	3
Ground psyllium seed husk	3.5	4
Ground flax	.8	2.2

The dietitian's KITCHEN SWITCHES to whole grains at most snacks and meals:

- ✓ Replace wheat flour with 100% whole wheat flour.
- ✓ Replace white bread with 100% whole wheat bread.
- ✓ Replace refined grain cereals with whole grain or multigrain cereals.
- ✓ Add a few tablespoons of wheat bran, wheat germ, oat bran or ground flax seed to your baked goods and casseroles to increase their fibre content.

Quick recipe tip: Morning Muesli

Start the day with homemade muesli: In a large cereal bowl layer 125-175 mL (½-¾) cup plain uncooked oatmeal (regular or quick oats, not steel cut), 125-175 mL (½-¾ cup) yoghurt and 250 mL (½ cup) cut up fruit. Add a small amount 5-10 mL (2-3 tsp) of nuts or seeds or ground flax seed for flavour, variety and added nutrition.

Eat smart! Choose heart-healthy animal proteins.

Red meats (beef, pork, and lamb), poultry (chicken, turkey and duck), fish and shellfish (crab, lobster and shrimp) and eggs are all rich in protein, iron, zinc, vitamin B12 and saturated fat. Pick the leanest cuts to decrease your saturated fat intake.

	Great choices	Good choices	Choose rarely
Meat	Well-trimmed, lean cuts of beef, pork, veal, venison, moose, rabbit, extra lean hamburger	Small amounts of low sodium lean ham, back bacon, lean hamburger, lamb	Organ meats, fatty or heavily marbled cuts of beef, pork, veal & lamb, side bacon, side ribs, pigs feet & ham hocks, processed meats
Poultry	Skinless turkey and chicken (light or dark meat)	Lean turkey or chicken breast lunch meats, ground chicken and turkey	Fried chicken, poultry with skin, giblets, duck, goose
Fish & seafood	Fresh or frozen fillets Fish canned in water	Fish canned in broth or tomato juice/paste Shrimp and other shellfish, squid, caviar, clams, oysters, mussels	Salted, smoked or pickled fish Fish canned in oil Fish or seafood coated in batter
Eggs	Boiled, poached, scrambled omega-3 enriched eggs Egg whites Egg substitutes	Boiled, poached, scrambled regular eggs	Pickled, fried, devilled eggs Egg salad with mayonnaise Eggs Benedict or Florentine

Shopping and preparation tips:

Look for red meats with little or no marbling. Remove all visible fat from meat before cooking. This is where most of the saturated fat and cholesterol are found.

Remove the skin and fat from poultry before cooking – you get rid of almost all the saturated fat this way.

Choose canned fish packed in water.

Use heart-healthy cooking methods: bake, stir-fry (with heart-healthy oils such as canola or olive oils), broil, braise, roast, poach, microwave or barbecue but avoid frying (deep or pan).

When browning ground meat, add a small amount of water to prevent it from sticking. When using ground meat in sauces, brown the meat and then drain in a colander and – preferably - rinse well under hot water before adding to other ingredients.

When browning larger cuts of meat such as chops, steaks and stewing pieces – or when stir frying – brush or toss the meat in a very small amount of heart-healthy oil to coat (or add a small amount of oil to a marinade), and use a non-stick pan.

When roasting, place meat on a rack so that the fat can drip away.

Choose omega-3 eggs more often than regular eggs – these egg yolks are sources of omega-3 fatty acids that help protect you from heart disease.

Eat smart! Choose plant-based proteins more often.

Plant proteins include legumes, nut butters, tofu and other soy products. These are all tasty alternatives to meat, poultry, fish and seafood. They add variety and good fats to your diet and can be an excellent source of fibre. Nut butters (e.g., peanut, almond, cashew, hazelnut) make fantastic alternatives to butter and margarine. Although nut butters are still high in fat and calories, most of the fat is unsaturated. (You will also find nuts and seeds included in the added fats and oils section of Eat smart, p.32.)

Choose plant-based proteins more often:

	Great choices	Good choices	Choose rarely
Legumes	Beans, peas, lentils (canned, frozen, dried) Hummus and bean dips made without mayonnaise	Baked beans with pork Hummus and bean dips made with mayonnaise	Legume dishes prepared with full fat coconut milk (e.g., curries or rice and beans)
Soy products	Tofu (firm, regular, silken, flavoured)	Soy protein products and legume based "veggie patties," miso, tempeh, tofu puddings	Fast-food veggie burgers that are prepared with vegetable oil shortening
Peanut and nut butters	*All* natural peanut and nut butters	Nut butters with added vegetable oils (e.g., cashew nut butter with safflower oil)	Regular peanut butter with hydrogenated vegetable oil and sugar

Shopping and preparation tips:

Soy products are substitutes for meat. Many of these products (e.g., slices, patties) are available in the refrigerated section of your grocery store.

Cut back on the ground meat in your spaghetti sauce by substituting half the meat with one of the many soy-based meat alternatives such as soy "lean ground" (a replacement for lean ground beef) or soy "meatballs". This also adds variety to your diet.

Legumes include a wide variety of beans, peas and lentils. They are available dried, frozen and canned. They are also rich sources of carbohydrate and fibre and contain almost no fat.

Use canned legumes as a healthy fast food! Open the can, rinse the beans and add them to soups, salads, stir-fries and casseroles to increase the soluble fibre (and add flavour too!).

Table 13. Fibre content of legumes

	Soluble fibre (g)	Total fibre (g)
Legumes (cooked, 125mL/ ½ cup)		
Black beans	2	5.5
Kidney beans	3	6
Lima beans	3.5	6.5
Navy beans	2	6
Pinto beans	2	7
Lentils (yellow, green, orange)	1	8
Chick peas	1	6
Black eyed peas	1	5.5

The dietitian's KITCHEN SWITCHES to lean proteins:

- ✓ Replace hot dogs and other processed meats that are very high in fat (particularly saturated fat) with roast turkey or chicken breast, lean ham (e.g., Black Forest, honey or Virginia ham) and lean roast beef.
- ✓ Replace regular eggs with omega-3 eggs – they contain less saturated fat and more omega-3 fats.
- ✓ Replace meat and poultry in soups with canned beans, peas or lentils.
- ✓ Replace ground beef with "lean ground" soy protein.

Quick recipe tip - Spicy Bean Wrap

In a large bowl, combine 250 mL (1 cup) each of cooked rice, canned black beans and chopped tomatoes with 50 mL (¼ cup) canned green chilies. In a separate bowl, whisk together 15 mL (1 Tbsp) canola oil, 15 mL (1 Tbsp) lime juice and 5 mL (1 tsp) ground cumin, and stir into the rice/bean mixture. Divide among 4 whole-wheat tortillas and add salsa and lower fat cheese. Roll up, slice in half and serve.

Eat smart! Choose low fat milk and fortified soy products.

This group includes fluid milk, yoghurt, cheese, dairy desserts (frozen yoghurt and ice cream) and fortified soy products. Milk products are sources of calcium. Fluid milk and fortified soy beverages are two of the few food sources of vitamin D. Regular homogenized milk, regular cheese and ice cream, however, are high in total fat, saturated fat and cholesterol. Choose lower fat milk products to help decrease the total fat and saturated fat in your diet.

Fortified soy beverages, soy yoghurt, soy cheeses and soy desserts can be substituted for milk products for those who are lactose intolerant or have cow's milk protein allergy. Choose soy products that have been fortified with calcium, vitamins D, A and B12.

Regular soy beverages have about the same fat content as 2% milk fat (M.F.) cow's milk.

Shopping and preparation tips:

Choose milk products with the lowest percent milk fat content (% M.F.), to easily reduce the fat, saturated fat and cholesterol in your diet.

Use low fat milk in your soups, puddings or home baked goods.

Use cheese sparingly.

Aged cheeses such as parmagiano and old cheddar have more flavour so you don't need to use as much.

Choose low fat milk products more often:

	Great choices	Good choices	Choose rarely
Milk, buttermilk, yoghurt, cottage cheese	Skim or 1% milk fat (M.F.)	2 % milk fat (M.F.)	≥ 3.25% milk fat (M.F.)
Fortified soy products	Low fat (≤ 3g fat per serving) fortified soy beverage and soy yoghurt	Regular fortified soy beverage and soy yoghurt	
Cheese	≤ 15% M.F. cheese and low fat soy cheese	15 - 20% M.F. Regular soy cheese	≥ 20% M.F.
Desserts	≤ 1% M.F. ice cream or frozen yoghurt Ice milk	≤ 2% M.F. ice cream or frozen yoghurt	Premium ice cream and yoghurt
Soups	≤ 1% M.F. milk-based soup	≤ 2 % M.F. milk-based soup	Cream-based soup

≤ less than or equal to, ≥ more than or equal to

Evaporated milk with ≤ 2% M.F. or less can be used instead of cream in your recipes and coffee.

Try making your dips with low- or no-fat sour cream and buttermilk instead of regular sour cream and mayonnaise.

Be aware that soy beverages are usually sweetened and contain as much added sugar as chocolate milk.

The dietitian's KITCHEN SWITCHES to lower milk fat products:

- ✓ Drink a café au lait instead of coffee with cream.
- ✓ Replace cream with ≤ 2 % M.F. milk in cream soups.
- ✓ Replace full-fat cheeses with ≤ 15% M.F. soft and hard cheeses.
- ✓ Choose fermented milk products such as 1% M.F. yoghurt and kefir to ensure that your digestive system functions well.
- ✓ Make skim milk based puddings for a quick and tasty dessert.

Fermented milk products such as yoghurt and kefir contain probiotic bacteria – also known as healthy bugs for your gut!

Quick recipe tip: POWER Shake!

For a quick pick-me-up or for breakfast on the run, blend together 125 mL (½ cup) yoghurt, 50-125 mL (¼-½ cup) milk, ½ banana and 125 mL (½ cup) frozen strawberries. Makes one large shake.

Attention chocoholics!

Try replacing rich chocolate treats with a glass of commercial chocolate milk, either frosty cold or hot. Made with skim or 1% M.F. milk, this low fat alternative may satisfy your craving without all the saturated fat of chocolate and chocolate desserts.

Any kind of alcohol can raise triglyceride levels and blood pressure.

A moderate amount of alcohol is two servings a day if you're a man and one serving a day if you are a woman. This takes into account the differences in weight and metabolism between men and women. If you have diabetes, elevated triglycerides or are trying to lose weight, you should limit your alcohol intake.

Salt and condiments

Condiments add flavour and enjoyment to food but often contain a lot of salt. Prepared foods often contain hidden salt. You can lower your blood pressure or even prevent its rise by reducing your salt intake, so try to use fresh or dried herbs, unsalted spices, lemon juice and flavoured vinegars to add flavour without the salt.

Read the ingredient list for hidden salts

Look out for salt, sodium, soy sauce, sea salt, meat tenderizer, yeast extract, salted herbs or spices and any ingredient with sodium in the name (e.g., sodium chloride).

Choose less salty ingredients as flavouring:

Food item	Great choices	Good choices	Choose rarely
Condiments	Fresh or dried herbs, unsalted spices and seasonings (garlic powder, celery powder, etc). Lemon juice, vinegar Flavouring extracts	Commercial sauces: (tomato ketchup, sodium-reduced soy sauce, mustard, BBQ, horseradish).	Sea salt, MSG, salted herbs and spices, table salt, meat tenderizer, yeast extracts, commercial coating for meat, fish, poultry

Eat smart! Drink enough fluids to stay well hydrated.

Fluids are an essential part of a healthy diet. Aim for at least 1½ litres (5-6 cups) of fluids such as water, milk, juice and soups every day. If you are physically active you will need to drink even more. Water is a great choice if you don't want to add extra calories, sugar or salt to your diet.

Choose fluids low in fat *and* low in sugar:

Great choices	Good choices	Choose rarely
Tap water, mineral water Vegetable juices Cereal beverages Café au lait with ≤1 % M.F. milk Homemade broth and vegetable-based soups Legume-based soups Shakes made with low fat milk, yoghurt and fruit	Shakes made with regular milk/ yoghurt/ice cream Unsweetened fruit juices Coffee and tea Diet sodas Café au lait with ≤ 2 % M.F. milk Chocolate milk with ≤ 2 % M.F. milk Broth-based commercial soups	Beverages made with egg yolk/whole milk/ coconut oil or palm oil Fruit drinks and sweetened fruit juices Sweet mocktails or cocktails with coconut milk Regular soft drinks Cream-based soups Full-fat milk-based sweetened beverages

Step 4 - Choose an Eating Plan

Now it is time for you and your Dietitian to make an eating plan based on your nutritional needs and your overall health goals. The total number of servings of each food group you need every day depends on:

- **Your age:** growing children and teenagers need more food than younger children and older adults.
- **Your body size:** a bigger and taller person will need more servings of each of the food groups than a smaller person, even if they are the same age.
- **Your gender:** typically, males are bigger in size and have faster metabolic rates and therefore need more food than females.
- **Your activity level:** this is the biggest factor in determining your overall energy needs and the total number of servings of each food group you need to eat each day to meet those energy needs. The more active you are the more energy (and servings of foods) your body will need.
- **Your health goals:** if you are trying to lose weight, you will need to cut down on the numbers of servings and/or the portion sizes of foods that you might normally require.

Eat Smart! Eating Plan

The suggested numbers of daily servings of each food group to meet different Calorie (energy) and nutrient needs are presented in the following eating plan. This plan will meet minimum energy needs as well as the energy needs for a physically active lifestyle. Suggested total numbers of daily servings from each food group needed to meet these energy needs are included in their respective columns.

Eat smart ! Eating plan

Food Groups	Your Recommended Eat Smart! Eating Plan	Minimum or Weight Loss Needs			Physically Active Lifestyle Needs		
		1400 kcal	1600 kcal	1800 kcal	2000 kcal	2500 kcal	3000 kcal
Grain Products		6	8	10	10	12	12
Fruits		2	2	3	3	4	5
Vegetables		3	3	4	5	5	7
Milk products		3	3	3	3	4	4
Animal Proteins Plant Proteins		<= 1 1	<= 1 1	<= 1 1	1 > 1	1 > 1	1 > 1
Fats & Oils		3	4	4	4	6	9
Sugar-Added Foods		2	2	2	3	4	6
Fluids		8	8	8	10	10	12
Approximate Carbohydrate (grams)		205	235	285	305	380	435
Approximate Protein (grams)		66	70	76	84	106	118
Approximate Fat (grams)		33	38	38	41	57	75

A Registered Dietitian can create an eating plan for you based on your specific nutritional needs, your tastes and eating habits, your medications and your condition (diabetes, high blood pressure, blood lipid levels, and heart problems).

If a Registered Dietitian has not completed your Eat Smart! Eating plan, you are missing the best guidance to help you to control your condition (blood lipid levels, diabetes, high blood pressure) or promote healthy weight loss. Ask your Registered Dietitian to recommend an **Eat Smart! Eating Plan** for you.

Sample menu	Food groups	Minimum/ Weight Loss	Physically Active Lifestyle
Breakfast		Number of servings	
Milk	Milk products	1	1
Orange juice	Fruits	1	2
Blueberry pancakes	Grain products	2	2
Maple syrup	Sugars and sweets	1	2
Margarine	Fats and oils	-	1
Decaffeinated tea	Fluids	1 or more	1 or more
Snack		Number of servings	
Homemade bran muffin (small)	Grain products	1	1
Almonds	Fats and oils	½	1
Pear	Fruits	-	1
Water	Fluids	1 or more	1 or more
Lunch		Number of servings	
Pita bread (whole wheat) stuffed with tuna	Grain products Animal proteins	1 1	2 1
Vinaigrette salad dressing (p.35)	Fats and oils	1	2
Cut raw vegetables	Vegetables	2	3
Banana	Fruits	1	1
Milk	Milk products	1	1
Water	Fluids	1 or more	1 or more
Snack		Number of servings	
Apple	Fruits	1	1
Water	Fluids	1 or more	1 or more
Supper		Number of servings	
Beef, kidney bean and broccoli stir-fry	Animal proteins Plant proteins Vegetables	½ 1 1	1 1 2
Rice	Grain products	2	3
Side salad	Vegetables	1	1
Salad dressing (oil based)	Fats and oils	½	1
Peaches with crumble topping (8cm x 8cm piece)	Fruits Grain products Fats and oils	1 1 1	1 1 1
Milk	Milk products	1	1
Decaffeinated tea	Fluids	1 or more	1 or more

Total number of servings per food group	**Minimum needs**	**Very physically active person**
Grain products	7	9
Vegetables	4	6
Fruits	4	6
Milk products	3	3
Animal proteins	1	2
Plant proteins	1	1½
Fats and oils	3	6
Sugars and sweets	1	2
Beverages/fluids	5 or more	8 or more
Nutritional analysis – total daily values		
Calories (kcal)	1600-1700	2200-2300
Carbohydrates (g)	285	375
Dietary fibre (g)	35	44
Protein (g)	71	99
Fat (g)	37	53

Your DAILY MEAL PLAN

Food groups ☑ include	Food Examples / Suggestions
Breakfast	TIME:
Grain products ❑	
Vegetables and fruit ❑	
Milk products ❑	
Animal proteins ❑	
Plant proteins ❑	
Fats and oils ❑	
Sugars and sweets ❑	
Fluids ❑	
Snack	TIME:
Vegetables and fruit ❑	
Fluids ❑	
_____	
Lunch	TIME:
Grain products ❑	
Vegetables and fruit ❑	
Milk products ❑	
Animal proteins ❑	
Plant proteins ❑	
Fats and oils ❑	
Sugars and sweets ❑	
Fluids ❑	
Snack	TIME:
Vegetables and fruit ❑	
Fluids ❑	
_____	
Supper	TIME:
Grain products ❑	
Vegetables and fruit ❑	
Milk products ❑	
Animal proteins ❑	
Plant proteins ❑	
Fats and oils ❑	
Sugars and sweets ❑	
Fluids ❑	

Your Minimum needs	Your Physical Activity Needs
Number of servings	
Number of servings	
Number of servings	
Number of servings	
Number of servings	

General Recommendations

By following your meal plan you will have a balanced approach to eating and you will be able to better control your cholesterol (and blood sugar) levels. For those of you wanting to lose weight, a meal plan in combination with a physical activity plan ensures that you will be able to lose weight safely AND maintain that weight loss. Here are some tips to help:

1. Eat the AMOUNTS of foods recommended by your Dietitian in your DAILY MEAL PLAN.

2. Eat ALL scheduled meals and snacks.

3. Eat your meals and snacks at about the same time each day.

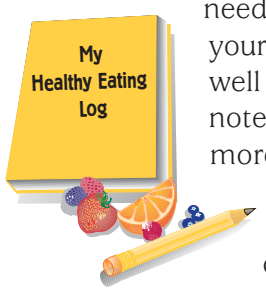
4. Choose a variety of foods from within the food groups (e.g. if your plan suggests 2 vegetable servings at dinner make 1 serving sweet potato and the other broccoli).

5. Contact your Dietitian if your medication, activity program, health, body weight, or appetite change significantly.

6. Do you have a question about nutrition or your diet? Do not hesitate to call your Dietitian.

Step 5 - Put your eating plan into action

Keep track of your eating habits for three days (two weekdays and one weekend day) using the **Healthy Eating Log** on the next page. The log will show you how much you are eating during the day (you'd be surprised!) and where you need to improve your eating habits. Carry your log with you - record what you ate as well as when and why you ate. Be sure to note where you are eating. We often eat more when our attention is not focused on our plate, such as when we eat in our car, in front of the television or at the computer.



Record *everything* you eat and drink, including the size of your portions. Determine your number of servings from each food group using the Eat smart! serving sizes (e.g., 1 cup of juice = 2 fruit servings). The servings sizes tables are found on the following two pages (p.63 and p.64). Add up your servings for each food group. Compare your total number of servings each day with the minimum number of servings recommended in the Eat smart! Eating plan. Track your progress to see how you are doing compared to the suggested daily servings of each food group.

Example of an entry on the Healthy Eating Log:

Time: 9am
Food eaten and quantity: Sandwich – 2 Tbsp peanut butter, 1 medium banana, and 2 thin slices of toast
Why and where I did I eat? Hungry, at work
Servings: 1 fruit, 2 grains, 1 plant protein

Eat smart! Healthy eating log			Number of servings						
Time	Food eaten and quantity	Why and where did I eat?	Grains and cereals	Veggies and fruit	Milk products	Animal/plant proteins	Fats and oils	Sugars and sweets	Fluids
9	*2 thin slices toast*	*hungry*	*2*						
	2 tbsp peanut butter	*at work*				*1*			
	1 medium banana			*1*					
11	*1 cup coffee*	*thirsty*							*1*
	1/2 cup of milk	*@ work*			*1/2*				*1/2*
1	*1 cup water*	*hungry*							*1*
	1 cup reg soup	*@ work*	*1*						*1*
	large bowl salad + small roll		*1*	*2*					
	1/2 tbsp salad dressing	*@ work*					*1*		
4	*1 apple + 1 c water*	*on bus*		*1*					*1*
7	*1 cup rice*	*hungry*	*2*						
	1/2 cup broccoli	*@ home*		*1*					
	3 oz salmon-broiled					*1*			
	1 cup milk				*1*				*1*
	175 g fruit yogurt				*1*			*1/2*	
Total daily servings eaten			6	5	2 1/2	2	1	1/2	5 1/2
Minimum daily servings goal			5	5	2	2	Use sparingly		At least 5-6 cups

What was my biggest eating challenge today?
Forgetting to pack a lunch for work

How did I deal with it?
Bought soup/salad at the cafeteria

How do I feel today?
Great! ☺
Okay 😐
Blah ☹

Serving sizes

Fats and Oils – 1 serving

Monounsaturated & Polyunsaturated fat sources

1/6th avocado
5 medium Olives
5 mL vegetable oils
5 mL margarine, soft, non-hydrogenated
10 mL margarine, reduced calorie
10 mL salad dressing, regular
30 mL salad dressing, reduced calorie
5 mL mayonnaise
(caution: contains cholesterol)
10 mL mayonnaise-based salad dressing (Miracle Whip“)
15 mL mayonnaise or mayonnaise-based salad dressing, light
15 mL nuts and Seeds

Saturated fat, trans fat and cholesterol sources

2 small strips bacon, well done
5 mL butter, lard, shortening, hydrogenated margarine
5 mL coconut oil, palm kernel oil
15 mL coconut, dried, unsweetened
15 mL liver paté
15 mL cream cheese, processed cheese spread (e.g. Cheez Whiz“)
30 mL cream cheese, light
15 mL 35% M.F. cream
30 mL 15% M.F. cream or sour cream
45 mL 10% M.F. cream
60 mL whipped topping (e.g. Cool-Whip“, Nutri-Whip“)

1 serving of vegetables

1 medium sized vegetable (e.g., tomato, pepper, onion)
125 mL fresh, frozen, cooked or canned vegetables
250 mL side salad
250 mL of tomato based or tomato-based mixed vegetable juices

2 servings of vegetables

500 mL salad vegetable (e.g., baked potato)
500 mL of tomato based or tomato-based mixed vegetable juices
250 mL French fries
14 Baby carrots

1 serving of animal protein

Small piece (90 - 100 g) of cooked lean meat, poultry or fish
1 large egg (max. 4 per week)
½ of 210 g can of fish
15 large shrimp
9 medium size clams, mussels, oysters, scallops, snails
90 g crab, squid or lobster

2 servings of animal protein

Large piece (180 - 210 g) of cooked lean meat, poultry or fish
2 large eggs
7 oz (210 g) can of fish (drained)

1 serving of sugars or sweets

15 mL of sugar (white, brown)
15 mL of molasses, syrup or honey
125 mL of a regular soft drink or a fruit drink/punch
3 small hard candies or toffees
½ a Popsicle®
15 mL of jam or jelly
125 mL of sherbet or ice cream

1 serving of alcohol

330 mL of beer
125 mL of wine
45 mL of liquor or liqueur

1 serving of grain products

1 thin slice bread (30 g)
30 g cold cereal
175 mL hot cereal
7 soda crackers
1 small pancake or waffle (15 cm/6"dm)
750 mL plain popcorn
2 thin cookies (6 cm/2"dm)
2 small rice cakes
4 small tea biscuits
3 graham crackers

2 servings

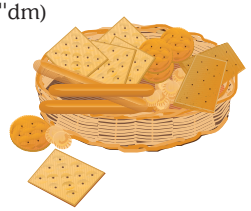
1 thick, large slice of bread (60 g)
1 small pita (15 cm/6"dm)
1 English muffin
1 small dinner roll
250 mL pasta, cooked
1 hot dog or hamburger bun
1 homemade muffin
1 thin, large cookie (10 cm/4"dm)
150 mL rice, couscous (cooked)

3 servings

1 Montreal-style bagel (90 g)
Most large store-bought muffins
1 thick, large cookie (10 cm/4"dm)

4 servings

Bread-type bagel (120 g)
Extra-large fast food muffin (120 g)



dm = diameter

1 serving of milk or soy products

250 mL milk or soy beverage
175 mL yoghurt or soy yoghurt
50 g cheese or soy cheese
250 mL cottage cheese
125 mL (small bowl)of ice cream or frozen yoghurt/soy yoghurt

2 servings of milk or soy products

250 mL (large bowl) of ice cream or frozen yoghurt/soy yoghurt
500 mL (extra large) café au lait or café latté with milk or soy milk
250 mL kefir (with fruit)
200 mL yoghurt, drinkable

1 serving of fruit

2 small fruits (e.g., kiwi)
1 medium fruit (e.g., apple, orange)
125 mL fresh, frozen, cooked or canned fruit
125 mL fruit juice
250 mL large berries (e.g., strawberries, raspberries)
125 mL small berries (e.g., blueberries)

2 servings of fruit

1 large fruit (e.g., grapefruit, large banana, large orange, large apple)
250 mL fruit juice
4 pitted dried dates or prunes
8 dried apricot halves
60 mL raisins or dried cranberries
2 dried figs

1 serving of plant protein

125 – 250 mL cooked beans (kidney, navy, pinto,fava), chick peas or lentils
50 mL – 125 mL chickpea dip (hummus) or black bean dip
120 g tofu (bean curd) or other soy products
30 mL peanut or other nut butter

Time	Food eaten and quantity	Why and where did I eat?	Grains and cereals	Veggies and fruit	Milk products	Meat/plant proteins	Fats and oils	Sugars and sweets	Fluids
Total daily servings eaten									
Minimum daily servings goal			5	5	2	2	Use sparingly		At least 5-6 cups
What was my biggest eating challenge today?									
How did I deal with it?							How do I feel today? Great! ☺ Okay 😐 Blah ☹		

Eat smart! Healthy eating log

Number of servings

A three-day record can't tell you how you eat over the long term, but it can give you feedback to help you improve your eating habits. Start by making the easiest changes first:

- meal-by-meal is a great way to go – make one change at breakfast (e.g., switch from butter to nut butter on your toast or use lower fat milk on your cereal) then move on to lunch;
- focus your changes on one food group each week;
- think variety – try an alternative new food each week;
- accurately measure your portion sizes – a healthy serving size is probably much smaller than you think;
- plan your meals ahead and make a list for your grocery shopping – it will help you to avoid impulse buying and save you money; and
- always shop for groceries *after* eating a meal – you will make healthier purchases!

Healthy eating is nutritious, delicious and easy to do. Balance how much you eat with your activity level. Choose foods from the "great choices" section of each food group and use recipes for healthy eating more often. These recipes can be found in cookbooks written by the Dietitians of Canada, or endorsed by the Heart and Stoke Foundation of Canada, the Canadian Cancer Society, the Canadian Diabetes Association and the Canadian Medical Association. Make a toast to "great food"!

SHAPE UP!

for your heart

If you're not happy about your weight (or if your doctor is not happy about your weight), you are not alone. Many of us are either on a diet, thinking about dieting, or have just fallen off the latest diet fad. In this section you will first determine a healthy weight and body composition for you.

The risk factors for becoming overweight include:

- less than 15 minutes of physical activity per day;
- snacking regularly on high calorie foods such as cookies, chips and candy;
- irregular meal times, skipping meals and snacking frequently throughout the day;
- watching two or more hours of television daily;
- sitting for more than several hours each day (e.g., desk work, driving);
- eating fast food meals more than once per week; and
- drinking sweet beverages daily (sodas, fruit drinks and fruit juices).

Achieving and maintaining that healthy body weight will mean following the recommendations of your doctor, and following the principles of the heart-healthy activity and eating plans that you found in Sections I and II. By being active and by eating smart, you will naturally achieve a healthier weight and body composition.

Identifying your healthy weight

Most of us carry much more body fat than we need for good health. This extra body fat raises triglycerides, lowers HDL-C and increases risks of heart disease, diabetes and high blood pressure.

Your healthy body weight is a weight that you can realistically reach and maintain without heroic lifestyle efforts.

To identify a healthy body weight, health professionals consider a number of factors, including body mass index and waist circumference.

Body Mass Index

Body mass index (BMI) is a common measure expressing the relationship (or ratio) of your bodyweight to your height. BMI is more highly correlated with body fat than any other indicator of height and weight but it is not recommended for use as the sole measurement of your body composition. It does not apply to infants, children, adolescents, pregnant or breastfeeding women and adults over 65 years of age. You can calculate your BMI using this formula – divide your weight by your height squared:

$$BMI = \frac{weight\ (kg)}{height\ (m)^2}$$

If your BMI is below 18.5, this may be associated with health problems for some people. It may be a good idea to consult a dietitian or physician for advice.

If your BMI is between 18.5 – 25, this is the preferred range. This zone is associated with the lowest risk of illness.

If your BMI is between 25 – 27, this zone may be fine if you are physically active. You likely have lots of muscle mass and may be overweight but not carrying excess body fat. A BMI over 25 may be associated with health problems, however, for inactive people.

If your BMI is over 27, this is a health risk zone and is associated with increased risk of heart disease, high blood pressure and diabetes. It would be a good idea to consult a dietitian or physician if you fall within this zone.

Waist circumference

Where you carry your weight is just as important as how much you weigh. If you carry your weight mostly in the stomach area and your waist is wider than your hips (apple-shaped), you are more at risk for heart disease and diabetes than if you wear your weight around your hips and thighs (pear-shaped). But remember, carrying extra body fat and being physically inactive are risk factors for heart disease for both apple- and pear-shaped people.

How to measure waist circumference:

Put your thumb on your hip and slide it up until is sitting on top of your hipbone. With a tape measure, measure the distance around the area just above the top of your two hipbones. This is your waist circumference. You could have a healthy BMI, but have a waist circumference that is high enough to put you at risk of developing obesity related health problems, including elevated cholesterol and triglycerides, high blood pressure and diabetes. See the chart below to figure out your level of risk.

Table 14. Risks of cardiovascular disease relative to body mass index and waist circumference

Body Mass Index	Waist circumference (cm/inches)	
	≤ 102/40” (Men) ≤ 88/35” (Women)	> 102/40” (Men) > 88/35” (Women)
• 18.5 or less (underweight) • 18.5 - 24.9 (normal weight)	Normal risk of CVD	Increased risk of CVD
• 25 - 29.9 (overweight)	Increased risk	High risk
• 30 - 34.9 (mildly obese)	High risk	Very high risk
• 35 - 39.9 (obese)	Very high risk	Very high risk
• 40 or greater (extremely obese)	Extremely high risk	Extremely high risk

Are you ready to shape up?

Are you ready to lose weight the wise way? Ask yourself these questions:

Have you thought about your present eating habits and physical activities so that you know what you might change?

- You can't change what you don't understand. Tracking your eating and activity habits for a week will help you to pinpoint patterns that need improvement and obstacles to be overcome.

Are you willing to make permanent – not temporary – changes to your eating and physical activity patterns?

- You may be able to lose weight in the short run with pretty drastic changes but this is no way to live the rest of your life. Your food and activity plans should be ones that you can enjoy and maintain on a daily basis.

Are you willing to lose weight slowly, at an average rate of one pound a week?

- Lose weight the way you put it on, slowly, while learning strategies to keep the weight off forever! Fast weight loss means fast weight regain.

Are you thinking about losing weight because you really want to, not because someone else thinks you should?

- The desire and commitment must come from you, not your family, friends or doctor. People who lose weight successfully take responsibility for their weight goals and choose how they want to achieve their weight loss.

Are you willing to increase your daily physical activities?

- Weight loss that stays off is achieved when you do more daily physical activities. Therefore, for wise weight loss you need to get moving!

Are you willing to commit time and effort each week to organize and plan your food and activity choices?

- Time is the important word here. Give yourself time to assess your problem areas and develop an approach that is the best for you.

If you reach a plateau in your weight loss, will you still be motivated to continue with your lifestyle changes?

- A plateau in an on-going weight loss program is normal so don't give up! Identify strategies that can help you to get over these plateau hurdles.

Will you feel successful with a small weight loss?

- Many people fantasize about achieving a weight that is not realistic. A reasonable plan sets smaller, achievable weight goals to help you along the way. Meet with a dietitian to determine a reasonable goal weight to start you on your way!

As you can tell from these answers, achieving and maintaining a healthy body weight requires an understanding of where you can improve your lifestyle, identifying realistic changes that you will be able to stick with, and a commitment to better eating and increased activity. Remember:

- Set reasonable goals for yourself. Your doctor and/or dietitian can help you to identify a reasonable goal to aim for, and advise you on how fast/slow you should be losing weight to remain healthy.
- Use the eating and activity logs (at end of book) to track your habits and show you where you need to make changes.

- The changes you make must be ones that you can stick with – so choose those physical activities and alternative foods that you really enjoy.
- Be patient and lose weight slowly, rather than crash-dieting.
- Try new foods and new activities as often as you can so that you stay interested and motivated.
- Reassess your progress on a regular basis, and track your achievements.
- Getting off track is not a failure: remember the good things you have already done for your health.
- Feel proud when you meet your goals.
- Don't give up when you hit a plateau! Try substituting a different activity or eating strategy to help you get past these obstacles. A change can be as simple as taking a different route when you go walking, or taking up a new hobby that keeps your mind off eating.

- Find a physical activity partner or a support person who will join you at the pool, go for an evening stroll or even share heart-healthy recipes. The right support person will encourage you to get moving more regularly and to make better choices about food – not make you feel guilty!

Most importantly, the change that you make today should be one that you can live with for the rest of your life. If you can do it again tomorrow – and every day – then you are on track to a healthier life!

Appendix A –

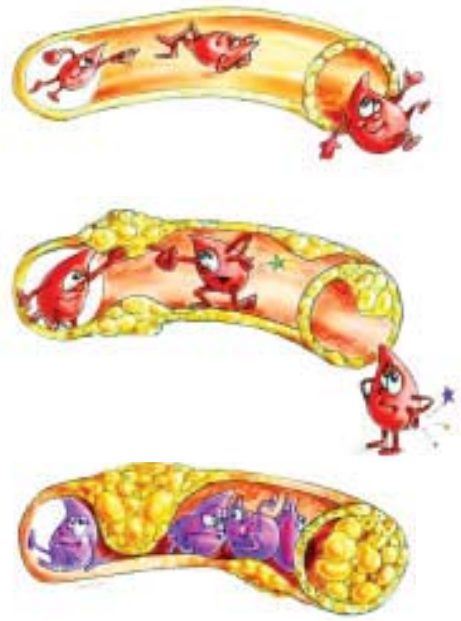
List of tables

Appendix B –

Additional information about blood lipids and heart disease

Cholesterol – the good and the bad

Your liver has produced most of the cholesterol in your blood, although some does come from the foods that you eat. Cholesterol is carried in your bloodstream by lipoproteins. There are two important cholesterol-carrying lipoproteins in the blood.



- Low density lipoprotein cholesterol (LDL-C) usually makes up about 60-70 % of the total cholesterol carried in the blood. We call LDL-C the bad cholesterol carrier, because too much LDL-C can cause cholesterol to build up in the walls of your arteries. This build up is known as plaque and it causes thickening of the walls of the arteries (atherosclerosis). Over time, the cholesterol-rich plaque bulges into the lumen of the artery, accumulating more and more LDL-C. Eventually, the arteries become so narrowed that blood flow is slowed down or blocked. When this happens you may suffer angina (chest tightness or discomfort in your left arm or jaw due to poor blood flow in the heart muscle). If a cholesterol-rich plaque ruptures, the artery may become completely blocked by a blood clot and you may suffer a heart attack.

- High-density lipoprotein cholesterol (HDL-C) normally makes up about 20-30 % of the total cholesterol carried in the blood. High-density lipoproteins (HDL) pick up cholesterol from the walls of the arteries and take it back to the liver for recycling or for excretion into bile. We call HDL the GOOD cholesterol carrier because the more HDL-C you have the more protected you are against the buildup of cholesterol in your arteries. If you have too low a level of HDL-C, there is a greater chance that cholesterol will build up in the walls of your arteries and lead to heart disease.

Remember: HDL = Healthy cholesterol, and LDL = Lousy cholesterol

Lowering LDL-C and/or raising HDL-C result(s) in a decrease in the cholesterol content of plaque, increased plaque stability and a reduced likelihood of plaque rupture. Overall, this reduces the risk for a heart attack. In addition, lowering LDL-C and raising HDL-C appears to improve the ability of blood vessels to dilate, improving blood flow to the heart.

Triglycerides

High levels of blood triglycerides (TG), are a risk factor for heart disease, particularly when blood HDL-C levels are below normal or when LDL-C levels are higher than normal. Fasting blood triglyceride levels above 6.0 mmol/L increase your risk of pancreatitis (a serious inflammation of the pancreas). To avoid pancreatitis, severely elevated triglyceride levels require treatment even if you have no other risk factors for heart disease. Successful treatment requires optimal blood sugar control if you have diabetes and avoidance of oral estrogen and retinoids.

Lipoprotein(a)

Lipoprotein(a) – also known as Lp(a) – is a cholesterol-carrying particle in your bloodstream that is genetically determined (inherited). High levels of Lp(a) promote cholesterol build-up in your arteries and interfere with the breakdown of blood clots (thrombolysis), which increases your risk of suffering a heart attack or stroke. Lp(a) levels greater than 25 mg/dl (250 mg/L) are associated with an increase in the risk of heart disease and stroke. The risk increases even more with levels above 50 mg/dl or in the presence of high levels of LDL-cholesterol or other heart disease risk factors. Because this is a genetic factor, lifestyle changes have little effect on reducing Lp(a). Your Lp(a) measurement can help your doctor determine whether a cholesterol-lowering drug is necessary, especially if you have no signs of coronary heart disease. An elevated Lp(a) – above 40 mg/dl – may indicate that a LDL-C lowering drug is warranted, even if you have only a high/normal (or borderline) LDL-C level.

Non-lipid risk factors for heart disease

Researchers have now found that four non-lipid risk factors also play a very important role in determining risks of heart disease. These are the levels of C-reactive protein and homocysteine in the blood, and the presence of metabolic syndrome or diabetes. In addition, being post-menopausal increases a woman's risk of heart disease.

1. C-reactive protein

Over the last few years, research has shown that plaque build-up in the arteries is an inflammatory disease. The inflammatory marker C-reactive protein (hs-CRP), which is determined by a blood test, may indicate whether there is unstable plaque build-up in your arteries. The more unstable the plaque, the greater your risk of having a heart attack or

stroke. Your doctor may also use your level of hs-CRP to assess your future risk of CVD or to decide if you may benefit from treatment with a statin drug even if you are apparently healthy and have no signs or symptoms of heart disease.

2. Homocysteine

Homocysteine is a protein in the blood strongly linked to cardiovascular disease. High blood levels of homocysteine increase the chance that blood clots will form in your arteries. Too much homocysteine may also damage the walls of your coronary arteries promoting cholesterol buildup. High levels of homocysteine may be due to genetic factors, kidney disease, poor absorption of vitamin B12, or to a diet that is low in folic acid, vitamin B6 and/or vitamin B12. Approximately 30% of patients with early onset of heart and blood vessel disease have a genetic disorder of homocysteine metabolism.

3. Metabolic syndrome

Metabolic syndrome (also known as Syndrome X, insulin resistance syndrome and the metabolic cardiovascular syndrome) is a group of risk factors that *together* raise the risk for coronary heart disease significantly. The metabolic risk factors that make up this syndrome are:

- excess fat around the middle (abdominal obesity)
- high triglycerides
- small, dense LDL-C particles
- low HDL-C
- high blood pressure
- high blood glucose
- a tendency towards blood clotting (thrombosis)
- chronic inflammation (high C-reactive protein).

Many people with metabolic syndrome eventually develop diabetes.

4. Diabetes

Diabetes is a disease of poor blood sugar control. Blood sugar (glucose) is derived from the carbohydrate-rich foods in your diet. Insulin production by the pancreas and normal insulin action in skeletal muscle, fat tissue and the liver, maintain normal levels of blood sugar. Insulin resistance (or poor insulin action) can happen because of obesity and genetic factors. When the pancreas cannot produce enough insulin to cope with this poor insulin action, type 2 diabetes develops. Diabetes increases the risk for heart disease, claudication (poor blood flow to the legs), gangrene, kidney failure, blindness, and erectile dysfunction in men.

For women only...

Cardiovascular disease is a significant cause of ill health for post-menopausal women. Statistics show that one in nine women aged 45 to 64 has cardiovascular disease. This increases to one in three women over the age of 65.

The risk of CVD increases with age for both men and women, but menopause – and the changes associated with it – cause a woman's risk of heart disease to more than double. During menopause, levels of the hormone estrogen start to decrease resulting in changes that affect cholesterol levels (an increase in LDL-C and a decrease in HDL-C) and the overall health of the artery walls.

Results of several studies show that hormone replacement therapy (HRT) is associated with increases in HDL-C levels, lower LDL-C levels and improved blood vessel function. However, estrogen can also increase the tendency of blood to clot, and recent studies have shown that HRT does NOT prevent cardiovascular disease.

Your optimal or ideal blood lipid profile

Your doctor will rate your risk of heart disease by comparing your total cholesterol level to your HDL-C level (Chol/HDL-C ratio). An ideal ratio is less than 3.5. Different people, however, will have different ideal cholesterol profiles. If you have a history of cardiovascular disease or diabetes and hence a higher risk of future heart problems, your doctor will set target values for you that are the lowest recommended.

Table 15. Optimal blood levels.

	Target Values (without CHD or Diabetes)	Target Values (with CHD or Diabetes)
Total Cholesterol (mmol/L)	< 5.0	< 4.2
Triglycerides (mmol/L)	< 2.0	< 1.7
LDL-C (mmol/L)	< 3.5	< 2.5 (< 2.0)*
HDL-C (mmol/L)	> 1.1 (men) > 1.3 (women)	> 1.1 (men) > 1.3 (women)
TC/HDL-C ratio	< 5.0	< 4.0
Fasting blood glucose (mmol/L)	3.8 – 6.1	3.8 – 6.1
Lp(a) (mg/dl)	< 25	< 25
Homocysteine (mmol/L)	< 9.0	< 9.0
hs-CRP (mg/L)	< 1.0	< 1.0

(< less than, > greater than)

* If you have significant heart disease, an optimal LDL-C level is below 2.0 mmol/L

Appendix C –
Medications

A heart-healthy diet, regular physical activity and weight loss are always the cornerstone of treatment for coping with cholesterol and triglycerides. However, medication may also be required for:

- individuals who have significantly elevated levels of LDL-cholesterol and triglycerides, and/or low levels of HDL-cholesterol, often due in part to genetic factors;
- individuals who have a history of coronary heart disease or other types of vascular disease, for whom intensive reduction of both LDL-C and triglycerides is essential;
- individuals with a history of diabetes, who are at very high risk for heart disease, and for whom intensive reduction of both LDL-C and triglycerides can protect against cardiovascular disease;
- individuals with several risk factors for heart disease (such as cigarette smoking, high blood pressure, metabolic syndrome and a family history of early heart disease) for whom particularly careful control of blood cholesterol and triglyceride levels is necessary.

LDL-C lowering drugs

Statins include atorvastatin (Lipitor®), fluvastatin (Lescol®), lovastatin (Mevacor®), pravastatin (Pravachol®), rosuvastatin (Crestor®) and simvastatin (Zocor®).

Statins are safe and effective drugs that have become standard therapy for patients with high LDL-C levels. If you already have coronary heart disease or diabetes you should receive an LDL-reducing drug. The choice of statin and dose will depend on how much you need to lower your LDL-C

level for optimal health. Statin treatment decreases the incidence of stroke and total mortality in high-risk patients. A reduction in coronary events can been seen in patients using statin medications with and without clinically evident CHD and with either average or elevated LDL-cholesterol concentrations.

Resins (bile acid sequestrants) include cholestyramine (Questran® and Colestid®).

Resins are used to lower LDL-C levels, often in combination therapy with other blood lipid medications. These medications lower LDL-C moderately (15% to 30%) and raise HDL-C very little (3% to 5%). These drugs may decrease the absorption of other drugs.

Cholesterol absorption inhibitors (the product currently available is known as ezetimibe [Ezetrol®])

These drugs reduce cholesterol absorption in the intestine and lower LDL-C by 15 to 20%. They are often used in combination with a statin.

HDL-C raising drugs

Niacin (a B-vitamin) is used to treat low levels of HDL-C and elevated triglycerides and LDL-C. Niacin can increase HDL-C levels by 30% (and often by an even higher percentage with long-term treatment) and is the most effective agent for increasing low HDL-C levels. Immediate-release niacin is most effective but must be taken three times a day to develop a tolerance to the vasodilatory side effects, commonly known as “flushing”. Slow-release niacin is better tolerated but less effective in increasing HDL-C.

Triglyceride lowering drugs

Fibrates include bezafibrate (Bezalip®), fenofibrate (Lipidil®), gemfibrozil (Lopid®).

Fibrates lower triglycerides by 30-40 %, and are generally well tolerated.

Fibrates should be avoided *completely* if you have significant kidney disease. If you have an elevated triglyceride level and a low LDL-C level, your doctor may prescribe a triglyceride-lowering drug alone. But if your LDL-C level is high, it would usually be lowered with a statin and perhaps a second drug might be added (such as nicotinic acid or a fibrate). While these drug combinations are highly effective, side effects are possible and more careful follow-up with your physician is essential. Salmon oil supplements also lower triglycerides and may be recommended by your doctor.

Niacin lowers triglycerides by a similar amount, but its use may be limited by side effects and increases in blood sugar. The most potent statin drugs can also lower triglycerides by 40 %, but are generally less effective in hypertriglyceridemia compared to the fibrates and niacin.

Herbal supplements as drugs

Despite widespread promotion of many herbal supplements for the prevention of heart disease, there is a lack of data to support their use. Until rigorous scientific trials have been completed and reviewed, we do not recommend the use of herbal supplements in the prevention or treatment of heart disease. Tell your doctor if you are taking any such supplements, as there is the potential for drug interaction with your prescribed medication(s).

Appendix D -
Table of Equivalents

Abbreviations	
United States / United Kingdom oz = ounce lb = pound	**Metric** µg = microgram mg = milligram g = gram kg = kilogram
Tbsp = tablespoon tsp = teaspoon fl oz = fluid ounce	dl = decilitre mL = millilitre L = litre

Weights			
United States / United Kingdom	**Metric**	**United States / United Kingdom**	**Metric**
1 oz	30 g	8 oz (½ lb)	250 g
2 oz	60 g	10 oz	315 g
3 oz	90 g	12 oz (¾ lb)	375 g
4 oz (¼ lb)	125 g	14 oz	440 g
5 oz (⅓ lb)	155 g	16 oz (1 lb)	500 g
6 oz	185 g	1 ½ lb	750 g
7 oz	220 g	2 lb	1 kg

Liquids		
United States	**Metric**	**United Kingdom**
1 tsp	5 mL	1 tsp
1 Tbsp	15 mL	½ fl oz
2 Tbsp	30 mL	1 fl oz
¼ cup	50 mL	2 fl oz
⅓ cup	75 mL	3 fl oz
½ cup	125 mL	4 fl oz
⅔ cup	150 mL	5 fl oz
¾ cup	175 mL	6 fl oz
1 cup	250 mL	8 fl oz
1½ cups	375 mL	12 fl oz
2 cups	500 mL	16 fl oz

Appendix E -

Recipe substitutions

Instead of	Use
250 mL wheat flour	250 mL whole wheat flour
250 mL whole milk	250 mL skim, 1% or 2% milk
1 whole egg	1 omega-3 enriched egg, 2 egg whites or 60 mL egg substitute For each egg used in recipes such as pancakes, muffins and cookies, add 15 mL ground flax seed pre-soaked in 45 mL water for several minutes .
250 mL butter or shortening (solid or melted)	250 mL soft tub non-hydrogenated margarine or 175 mL unsaturated oil (canola or soybean oil)
250 mL cream cheese	250 mL low fat cream cheese or low fat ricotta cheese
250 mL sour cream	250 mL plain yoghurt or 250 mL low fat (or no-fat) sour cream
30 g (1 oz. square) baking chocolate	45 mL cocoa plus 15 mL unsaturated oil (canola or soybean oil), blended together
Regular egg-based mayonnaise	Mayonnaise or salad dressing made with unsaturated oil (flax, canola, soybean or olive oil)
Sugar	In certain cases you can replace sugar with sugar substitutes such as Splenda® or Aspartame® to eliminate calories from simple sugars. Saccharin® should only be used under the advice of a physician.

Appendix F –

Guide to reading food labels

All packaged foods must have a food label. The food label has nutrition information in the ingredient list and in the nutrition facts box. The list of ingredients tells you what the food is made from. Ingredients are listed in order by weight from greatest to least. The nutrition facts gives information about Calories, fats, carbohydrates, protein and certain vitamins and minerals.

Per 125 mL (87 g)
All of the information in Nutrition Facts is based on a specific *amount* of food.

The table lists calories and 13 core nutrients.

More nutrients may be listed on some labels.

Sugars 2 g
This number is the actual amount of the nutrient in the specific amount of food. Even if the amount of a nutrient is zero, it is still listed.

Nutrition Facts

Per 125 mL (87 g)

Amount	% Daily Value
Calories 80	
Fat 0.5 g	**1%**
Saturated 0 g + Trans 0 g	**0%**
Cholesterol 0 mg	
Sodium 0 mg	**0%**
Carbohydrate 18 g	**6%**
Fibre 2 g	**8%**
Sugars 2 g	
Protein 3 g	
Vitamin A 2%	Vitamin C 10%
Calcium 0%	Iron 2 %

% Daily Value
This number reflects how much of a specific nutrient a food contains, relative to the recommended daily value. It indicates at a glance whether there is little or a lot of a nutrient in a specific food.

Label Reading Example

These two cracker labels show you how – by carefully reading the label – you can identify which product is lower in total fat, saturated fat and cholesterol, and higher in fibre.

Product A		Product B	
Claims on package: "Cholesterol free" "Low saturated fat" "Free of trans fatty acids" "100% vegetable oil"		**Claims on package:** "Cholesterol free" "Low saturated fat" "Free of trans fatty acids" "100% vegetable oil"	
Nutrition Facts Per 11 cracker serving	**% Daily Value**	**Nutrition Facts** Per 11 cracker serving	**% Daily Value**
Calories 126		**Calories** 110	
Fat 6.7 g	10 %	**Fat** 3.3 g	5 %
Saturated fat 1.3 g + trans fat 0.7 g	30%	Saturated fat 0.6 g + trans fat 0 g	18%
Cholesterol 0 mg		**Cholesterol** 0 mg	
Sodium 549 mg	23 %	**Sodium** 394 mg	16 %
Carbohydrates 14.9 g	11 %	**Carbohydrates** 17.9 g	14 %
Fibre 1 g	3 %	Fibre 2.2 g	7 %
Sugars 0 g		Sugars 0 g	
Protein 1.7 g		**Protein** 2.3 g	
Vitamin A 2% **Vitamin C** 10% **Calcium** 0% **Iron** 2%		**Vitamin A** 2% **Vitamin C** 10% **Calcium** 0% **Iron** 2%	
Ingredients Enriched flour, vegetable oil shortening, dehydrated vegetable and seasoning blend, sugar and/or dextrose, salt, ammonium bicarbonate, liquid invert sugar or glucose, fructose, monocalcium phosphate, sodium bicarbonate, hydrolyzed plant protein, protease.		**Ingredients** Whole-wheat flour, vegetable oil, sodium bicarbonate, salt, malt flour, yeast, protease.	

Evaluation of the Labels:

The Nutrient Content claims of these two products are exactly the same and they both meet the heart healthy diet criteria.

The nutritional information shows that Product A contains twice as much total fat and saturated fat as Product B. In fact, Product A provides half of its calories in the form of fat and would be considered a high fat product. A low fat product would contain less than 3 grams of fat per serving.

Both products fall into the category of "low in saturates" since they contain less than 2 grams of saturated fat and trans fatty acids combined. However, we can see that product B is preferable, since it is lower in saturated fat, total fat and calories.

On the ingredients list, we see that both contain the claim "100% vegetable oil." However, in Product A, the vegetable oil has been turned into shortening by the process of hydrogenation. This means that the vegetable oil has become more saturated and may contain trans fatty acids.

In addition, the ingredient lists tell us that Product A is made from enriched flour while Product B is made from whole wheat flour. Because of this, Product B has more fibre per serving!

Product B also contains fewer sodium ingredients and less total sodium than Product A.

Goal Setting for Coping with Cholesterol

Use Coping with Cholesterol to help you develop your own lifestyle goals that you would like to achieve. Be sure to follow the SMART principal (Specific; Measurable; Attainable: Realistic; and Timely) to design your goals.

Example: I will eat at least 5-10 brightly colored fruits and vegetables everyday by choosing a variety of these foods at each meal.

Example: I will increase the amount of walking I do everyday by 2-3 minutes until I am walking a total of 60 minutes each and every day!

Food Habits Goal: Make a goal based on your results from RATE YOUR PLATE.

Goal #1:

_____
_____

How will you achieve this goal:

_____
_____
_____
_____
_____
_____
_____

Food Group Goal: Make a goal based on your Eating Plan and your Healthy Eating Log.

Goal #2:

_____
_____

How will you achieve this goal:

_____
_____
_____
_____
_____
_____
_____

Physical Activity Goal: Make a goal that will help you improve your physical performance.

Goal #3:

_____
_____

How will you achieve this goal:

_____
_____
_____
_____
_____
_____

Other Goals:

_____
_____
_____
_____
_____