High cholesterol is a risk factor for cardiovascular disease, one of the top killers of Canadians. For this reason, it is important that you manage your cholesterol. Although your high cholesterol may be due to a genetic defect, it can also be significantly affected by your diet and lifestyle. In addition to any medications you may have been prescribed, it is important to follow a heart-healthy diet and get regular exercise to further decrease your risk of cardiovascular disease.

**Know your Lipids**

**LDL (low-density lipoprotein):** “Bad” cholesterol. Contributes to plaque build-up in your blood vessels, which can cause heart attack. Higher levels of LDL in the blood can increase risk of cardiovascular disease

**HDL (high-density lipoprotein):** “Good” cholesterol. HDL helps remove bad cholesterol from the blood for excretion. Higher levels of HDL can decrease your risk of cardiovascular disease.

Consuming high amounts of saturated and trans fats in your diet increases LDL levels. Dietary cholesterol, found only in animal products (meat, seafood, eggs, dairy, etc.) can also contribute to high blood LDL levels.

Get Active! Be more physically active by trying out these activities:
- Walk or bike to work or the store. Take the stairs instead of the elevator
- Go for a round of golf and walk instead of riding in the cart, carry your own clubs
- Sign up for a dance class
- Go swimming
- Chores: raking leaves, house cleaning, and mowing the lawn
- Get your family involved and plan fun, active family activities!

**General Guidelines for Healthy Living**

Aim for at least 150 min/week moderate-vigorous intensity physical activity. Include muscle and bone strengthening exercise at least twice a week. Physical activity lowers LDL and raises HDL

Do not smoke, avoid second-hand smoke.

Smoking lowers HDL

If you have hypertension, try to limit your sodium intake to less than 2300 mg/day.

Set realistic goals for yourself

Make changes gradually. This will help facilitate long-term changes.
Healthy Eating with High Cholesterol

- Consume a healthy, balanced diet high in fruits, vegetables, legumes, and whole grains
- Decrease the amount of saturated fat in your diet and replace it with unsaturated fat. Limit trans-fat intake to as low as possible
  - Unsaturated fats are liquid at room temperature. This includes fats found in oils, soft margarines, nuts, and fish
- Limit dietary cholesterol to 200mg/day
  - Incorporating 1-2g/day of plant sterols from fortified products (such as juices and margarines) has been shown to reduce levels of LDL cholesterol
- Limit alcohol consumption to no more than two drinks a day for men and one drink a day for women

### Eat More Often vs. Eat Less Often

<table>
<thead>
<tr>
<th><strong>Eat More Often</strong></th>
<th><strong>Eat Less Often</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unsaturated fat</strong>: olive, canola, safflower, sunflower, soybean, and corn oils</td>
<td><strong>Saturated fats</strong>: Butter, lard, shortening, coconut oil, palm oil</td>
</tr>
<tr>
<td><strong>Sources of omega-3 fatty acids</strong>: Fish (salmon, tuna, mackerel, herring), flaxseed, nuts, soybean oil, canola oil</td>
<td><strong>Trans-fat</strong>: Often found in commercial baked goods, hard margarines (“partially hydrogenated vegetable oil”)</td>
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<tr>
<td><strong>Plant sterols</strong> from fortified margarines or juice (e.g. MinuteMaid “Heartwise” Orange Juice, Becel “Pro.activ” margarine)</td>
<td><strong>Animal sources of cholesterol</strong>: egg yolks, red meat, shrimp, squid, bacon, organ meats</td>
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<tr>
<td><strong>Low fat dairy products</strong></td>
<td><strong>Full fat dairy products</strong></td>
</tr>
<tr>
<td><strong>Soluble fibre</strong> from oats, whole grains, fruits, vegetables, beans, and lentils</td>
<td><strong>Refined carbohydrates</strong>: White bread, ready-to-eat cereals, fruit juices with added sugar, commercial baked goods</td>
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<tr>
<td><strong>Soy protein</strong> sources: tofu, tempeh, edamame, soy milk, soy cheese</td>
<td><strong>Fried foods</strong> (chips, French fries, donuts, etc.)</td>
</tr>
</tbody>
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#### Easy Peanut Butter and Banana Overnight Oats (makes 2 servings)

Combine:
- 1 banana, mashed
- 1 cup rolled oats (old fashioned work best)
- 1/4 cup all-natural peanut butter or any other nut butter
- 1 cup skim milk or non-dairy milk (soy, almond, cashew, etc.)

Place in an airtight container and leave in your fridge overnight for a ready-to-go breakfast in the morning that can be served hot or cold!

#### Nutrition facts (for 1 serving):
- 497 kcal
- 19 g Total Fat (1 g Saturated Fat, 18 g Unsaturated Fat)
- 2mg Cholesterol
- 63 mg Sodium
- 12 g Fibre
- 16 g Sugars
- 18 g Protein

For more info and resources, visit www.lipidgeneticsclinic.ca