Wise Food & Lifestyle Choices For Better Overall Health

## THE IMPORTANCE OF UNDERSTANDING CHOLESTEROL IN YOUR DIET

## FOOD FOR THOUGHT

#### UNDERSTANDING CHOLESTEROL

Have you been told you have high cholesterol? If so, you may wonder what you can do about it. Learning the basics about cholesterol is a good place to start.

First it's important to know dietary cholesterol has little impact on blood cholesterol in most people. Steps you can take to help improve your blood cholesterol levels include eating well and being active.

Dietary cholesterol has very little effect on blood cholesterol.



#### WHAT IS CHOLESTEROL?

Cholesterol is a fat-like substance that is made naturally by all animals and humans. Our bodies need this vital building block to keep cell walls healthy and for making hormones and vitamin D.

Most of the cholesterol your body needs is made naturally by the liver. Only a small proportion of cholesterol in the body comes from the dietary cholesterol found in foods.

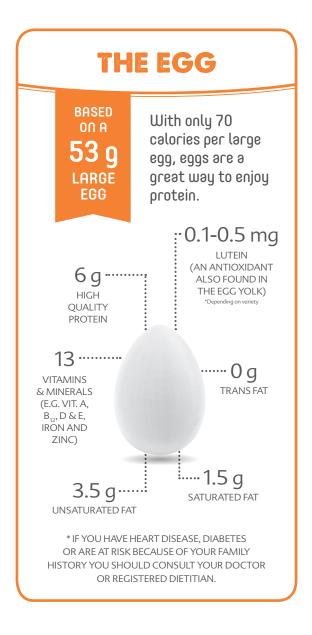


#### SOME FACTS ABOUT CHOLESTEROL

#### **Cholesterol is:**

- > an important structural component of all cell membranes.
- required for the formation of certain hormones and vitamin D in the skin.
- > produced in the liver and other tissues in both humans and animals.
- > found only in foods of animal origin; e.g. meats, shellfish, dairy foods and egg yolks.

Eggs are a naturally nutritious choice as part of a healthy diet. Canada's Food Guide recommends 2 eggs as a serving from the Meat and Alternatives group.<sup>14</sup>



#### **DIETARY CHOLESTEROL**

Dietary cholesterol found in foods of animal origin such as meat, poultry, shellfish, eggs and milk products has little effect on blood cholesterol levels in most people. In fact, when dietary cholesterol intake is decreased, the liver compensates by producing more cholesterol. And when dietary cholesterol intake is increased, the amount of cholesterol that the body absorbs tends to decrease.

#### **CURRENT GUIDELINES**

Health authorities in Canada and the United States have recognized the lack of scientific evidence for a limit on dietary cholesterol.<sup>14</sup> The latest American Heart Association lifestyle guidelines to lower the risk of heart disease and stroke do not include a limit for dietary cholesterol.<sup>4</sup> Instead, these guidelines recommend heart healthy eating patterns plus regular physical activity to help manage blood cholesterol levels.<sup>4</sup> The Canadian Cardiovascular Society also recommends heart healthy eating patterns and lifestyle habits to help manage blood cholesterol levels and prevent heart disease & stroke.<sup>5</sup>

Heart healthy eating patterns emphasize nutritious whole foods and unsaturated fats.<sup>4-6</sup> Nutritious whole foods include vegetables and fruit, whole grains, milk products, lean meats, poultry, fish and alternatives such as eggs, tofu, dried beans, peas and lentils, nuts and seeds. Learn more about eating well with Canada's Food Guide at https://www.canada.ca/en/health-canada/ services/food-nutrition/canada-food-guide/get-your-copy.html

ACHIEVE HEALTHY BLOOD CHOLESTEROL LEVELS — Eat a heart healthy diet, be active and manage your weight.

#### **BLOOD CHOLESTEROL**

Blood cholesterol refers to the cholesterol in your blood. There are two main types of blood cholesterol, LDL and HDL. The amount and type of cholesterol in your blood can affect your heart health. Experts agree your overall diet and lifestyle habits can make an important difference to your blood cholesterol levels and your heart health. The best way to achieve healthy blood cholesterol levels is to eat a heart healthy diet, be active and manage your weight. Your doctor may also prescribe medication to help.

#### GOOD AND BAD CHOLESTEROL

The terms "good" and "bad" cholesterol refer to the forms in which cholesterol is transported in the blood. These terms do not refer to dietary cholesterol.

> HDL CHOLESTEROL — High density lipoprotein (HDL) cholesterol is often referred to as the "good" or "healthy" cholesterol.

LDL CHOLESTEROL – Low density lipoprotein (LDL) cholesterol is often referred to as "bad" or "lousy" cholesterol.

#### HDL CHOLESTEROL

High density lipoprotein (HDL) cholesterol is often referred to as the "good" or "healthy" cholesterol because it carries cholesterol away from artery walls and back to the liver where it can be broken down and eliminated. High HDL cholesterol may help protect against heart disease.

**Note:** Your doctor may look at your non-HDL cholesterol (total cholesterol – HDL cholesterol) to predict your risk of heart disease.

#### LDL CHOLESTEROL

Low density lipoprotein (LDL) cholesterol is often referred to as "bad" or "lousy" cholesterol because it carries cholesterol to the cells in the body. High LDL cholesterol may contribute to the buildup of plaque in the arteries over time. This increases the risk of a heart attack or stroke.

#### HEALTHY CHOLESTEROL LEVELS

A number of healthy dietary and lifestyle habits can help you manage your blood cholesterol levels. These are important steps you can take to help lower your risk of heart disease and stroke.

#### To lower LDL (lousy) cholesterol levels

- > Achieve a healthy weight and waist size.
- > Eat a balanced diet, including healthy fats.
- > Choose plenty of foods rich in dietary fibre.

#### To raise HDL (healthy) cholesterol levels

- > Engage in regular physical activity each day.
- > If you smoke, get the support you need to quit.

Reading food labels can help you make wise choices. When buying packaged foods, look for foods that are:

- trans fat free and lower in saturated fat
- a source of omega-3 polyunsaturated fat
- higher in dietary fibre
- lower in sodium and sugar

You can take dietary measures to lower LDL cholesterol levels. Eating a heart healthy diet that focuses on nutritious whole foods, healthy fats and plenty of fibre can help improve blood cholesterol levels. Experts generally agree it is best to pay attention to the types and amounts of foods you are eating and the quality of your overall diet rather than focusing on any one nutrient. An important step you can take is to limit highly processed and deep fried foods. These foods tend to be lower in nutritional value and are a major source of trans and saturated fat, as well as sodium and sugar.<sup>6</sup> Increasing your dietary fibre intake is another step that can help lower LDL cholesterol levels. Fibre rich foods include whole grain foods, vegetables, fruits, legumes, nuts and seeds. Aim for a healthy balance including protein-rich foods such as lean meats, poultry, fish and eggs and milk products and alternatives.

## Here are some healthy eating tips that can help you:

focus on eating a variety of natural whole foods

- > cook from scratch at home as often as possible
- stay away from highly processed foods
- > pay attention to portion sizes

## Here are some examples of highly processed foods to watch:

- Deep fried foods (donuts, chicken fingers and spring rolls)
- Commercially baked goods (donuts, cakes, pastries)
- Salty packaged snacks (chips, crackers, microwave popcorn)
- Sweet packaged snacks (granola bars, puddings, candy bars)
- Convenience items (coffee whiteners, icing, cake mixes)
- Ready to eat frozen foods (waffles, pizza pockets, patties)
- > Hard (stick) margarine and shortening

#### EGGS - A NATURALLY NUTRITIOUS CHOICE

Research shows that healthy adults can enjoy an egg a day without increasing their risk of heart disease or stroke.<sup>7-12</sup> A recent study in young healthy adults also demonstrated that eating an egg a day was sufficient to increase the function of 'good' HDL cholesterol and favour a less atherogenic LDL cholesterol profile — i.e., one with a higher concentration of large compared to small LDL cholesterol particles.<sup>13</sup> Research suggests larger LDL cholesterol particles are better because they are less prone to oxidation and uptake into artery walls than smaller particles. This study also adds to the evidence that eating eggs can increase blood antioxidant levels.<sup>13</sup>





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#### **REFERENCES:**

- Health Canada. Scientific Summary on the U. S. Health Claim Regarding Dietary Fat, Saturated Fat, Cholesterol, Trans Fatty Acids and Coronary Heart Disease. May 2000.
- National Institute of Nutrition. Dietary Fat and Cholesterol: Lessons from the Past Decade. NIN Review 2004; Ottawa, Canada.
- U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015 2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at https://health.gov/ dietaryguidelines/2015/.
- Eckel RH et al. 2013 AHA/ACC Guideline on Lifestyle Management to Reduce Cardiovascular Risk. A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. Circulation, 2014; 129(25): Suppl. 2.
- Anderson TJ et al. 2016 Canadian Cardiovascular Society Guidelines for the Management of Dyslipidemia for the Prevention of Cardiovascular Disease in the Adult. Can J Cardiol, 2016; 32: 1263-1282.
- Heart and Stroke Foundation of Canada. Position Statement on Saturated Fat Heart Disease and Stroke, 2015.
- Alexander DD et al. Meta-analysis of Egg Consumption and Risk of Coronary Heart Disease and Stroke. J Am Coll Nutr, 2016; 35(8):704-716.
- Rong Y et al. Egg Consumption and Risk of Coronary Heart Disease and Stroke: Dose-Response Meta-analysis of Prospective Cohort Studies. BMJ 2013; 346:e8539.
- Hu F et al. A Prospective Study of Egg Consumption and Risk of Cardiovascular Disease in Men and Women. J Am Med Assoc, 1999; 281:1387-1394.
- Qureshi AI et al. Regular Egg Consumption Does Not Increase the Risk of Stroke and Cardiovascular Disease. Med Sci Monit, 2007; 13:CR1-8.
- Jones PJ. Dietary Cholesterol and the Risk of Cardiovascular Disease in Patients: a Review of the Harvard Egg Study and Other Data. Int J Clin Pract Suppl, 2009; 163:1-8, 28-36.
- Barraj L et al. A Comparison of Egg Consumption with Other Modifiable Coronary Heart Disease Lifestyle Risk Factors: a Relative Risk Apportionment Study. Risk Anal, 2009; 29(3):401-415.
- DiMarco DM et al. Intake of up to 3 Eggs per Day Is Associated with Changes in HDL Function and Increased Plasma Antioxidants in Healthy, Young Adults. J Nutr. 2017; 147(3):323-329.
- Health Canada. Eating Well with Canada's Food Guide. Ottawa, Canada: 2007. Available at: https://www.canada.ca/en/health-canada/services/food-nutrition/canada-food-guide/getyour-copy.html.

This information is for educational purposes and is not intended to replace advice provided by your doctor or dietitian.

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