# Care Gram Cholesterol

#### What Is Cholesterol?

Cholesterol is a waxy, fat-like substance that is made in the liver. Cholesterol is needed to form cell membranes, aid in digestion, develop hormones, and convert vitamin D. Cholesterol travels through the blood together with protein and fat. As the cholesterol in your blood increases, so does your risk for heart disease. When your cholesterol is at healthy levels, you have a lower risk for heart disease or stroke.

A complete fasting lipoprotein profile includes:

## LDL Cholesterol: Low-density Lipoprotein (Bad Cholesterol)

- LDL can cause plaque to form on the inside of your blood vessels
- Plaque is a sticky substance that can damage blood vessels and lead to heart disease, heart attack, or stroke
- Aim to keep your LDL cholesterol less than 100 if you have heart disease, diabetes, high blood
  pressure, or other health concerns, please speak with your healthcare provider, as your target level
  may be less than 70

## **HDL Cholesterol: High-density Lipoprotein (Good Cholesterol)**

- HDL prevents LDL build-up in the arteries
- An HDL cholesterol of 60 or higher is ideal and an HDL cholesterol of 40 or higher for men or 50 or higher for women is acceptable

#### **Total Cholesterol:**

- Is a calculation that estimates the total amount of cholesterol in your body
- High levels can be associated with higher risk of heart disease
- Aim to keep total cholesterol less than 200

## **Triglycerides:**

- High levels of triglycerides can cause plaque to form on the inside of your blood vessels
- Aim to keep triglycerides less than 150

In determining your risk for heart disease, your doctor will use your fasting lipoprotein profile as well as other factors, such as family history, age, smoking, diabetes, and high blood pressure. Your doctor will determine your target lipoprotein goal numbers based on these risk factors.



#### Cholesterol in Food

- Cholesterol is found in food, but only animal products.
- There is little evidence that cholesterol from food (dietary cholesterol) raises blood cholesterol.
- Many foods high in dietary cholesterol are nutrient-dense and low in saturated fat, including eggs, fish, and shellfish.

## **Factors that Impact Cholesterol**

- Food and meals that are high in saturated fat, tropical oils, or fully hydrogenated oils. These can increase cholesterol.
- Being overweight BMI 25 to 29.9 or obese BMI greater than 30
- Smoking
- Drinking too much alcohol
- Not exercising
- Age
- Long-term stress
- Genetics
- Gender Women after menopause can see an increase in LDL cholesterol. Men tend to have lower HDL cholesterol.

## What Can I Do to Improve My Cholesterol?

- 1. Aim to eat more healthy meals
  - Aim to increase your fiber intake
    - High fiber intake can reduce LDL cholesterol
    - Consume at least 25 grams per day for women and 38 grams per day for men. Fiber is found in whole grains, fruits, vegetables, beans, nuts, and seeds
  - Choose unrefined whole-grain foods over white-refined grain foods
    - Choose 100% whole wheat bread or pasta, brown rice, quinoa, couscous, bulgur wheat, wholegrain tortillas, wraps, and crackers
  - Eat more fruits and vegetables
    - Choose fresh or frozen fruits and vegetables without added sauces or syrups
    - Choose canned fruits in own juices, water, or light syrup or canned vegetables with no-added salt/sodium
  - Reduce the amount of saturated fats in your diet which include animal fats, tropical oils, and fully hydrogenated oils
    - Choose leaner cuts of meat and poultry
    - Limit portion size of meats, poultry, and fish to 2 to 3 ounces per meal
    - Reduce or avoid fatty meats such as sausage, bacon, bologna, and bratwurst
    - Limit processed foods made with saturated fats such as baked goods and many snack foods
    - Prepare food using heart-healthy fats (monounsaturated or polyunsaturated fats) instead of saturated fats
  - Select low-fat dairy products
    - Skim or 1 percent milk, reduced fat cheeses, and nonfat yogurts
  - Choose more foods with heart-healthy fats

**Guide to Types of Fats** 

Type of Fat	Monounsaturated Fat	Polyunsaturated Fat	Saturated Fat
Benefits or Concerns	Best choice – lowers bad (LDL) cholesterol, increases good (HDL) cholesterol	Good choice – lowers bad cholesterol	Limit these – increases bad cholesterol
Characteristics	Liquid at room temperature, derived from plants	Liquid or soft at room temperature	Firm or solid at room temperature – found in animal products, tropical oils, and fully hydrogenated oils
Examples	<ul> <li>Avocados</li> <li>Canola oil</li> <li>Olive oil</li> <li>Nuts</li> <li>Peanut butter</li> <li>Sunflower oil</li> <li>Sesame oil</li> <li>Nut oils</li> </ul>	<ul> <li>Corn oil</li> <li>Fat in seafood</li> <li>Safflower oil</li> <li>Soybean oil</li> <li>Walnuts</li> <li>Liquid or soft margarine</li> </ul>	<ul> <li>Butter</li> <li>Coconut oil</li> <li>Fatty meats</li> <li>Lard</li> <li>Cheese</li> <li>Cream cheese</li> <li>Sour cream</li> <li>Other high-fat dairy foods</li> <li>Palm oil</li> <li>Shortening</li> <li>Fully hydrogenated fats</li> <li>Baked goods and snacks made with saturated fats</li> </ul>

## 2. Exercise

- Aim for 30 minutes per day, at least 5 days per week, of moderate, intense exercise such as brisk walking
  - Start slowly start out with 10 minutes per day if that works for you
- Always speak with your doctor before beginning any exercise program

## 3. Lifestyle Changes

- If overweight or obese, lose weight
- If smoking, quit smoking
- Take prescribed medications as ordered by your doctor
- Have your lipid panel checked regularly according to your doctor's instructions