



What is Cholesterol?

Cholesterol is a waxy substance found in all body cells. Our bodies use cholesterol to digest food, make hormones, build cell walls, and perform other important functions.

Our bodies make cholesterol in the liver. Dietary cholesterol comes only from animal products such as meat, dairy, eggs, and animal fats.

If blood cholesterol is too high, we can have health problems such as narrowing or blocking of blood vessels, heart disease and strokes.

Measuring Blood Cholesterol

- 200 or less is desirable. If your level is less than 200, ask your healthcare provider when you should have it rechecked.
- 200-239 means you are at moderate risk for heart disease and stroke, especially if you have other risk factors such as obesity or high blood pressure, if you are a smoker, or if you have a family history of heart disease.
- 240+ means you are at high risk for developing heart disease. Ask your healthcare provider what you can do to lower your cholesterol.

LDL and HDL (parts of total cholesterol)

Low Density Lipoprotein (LDL)

LDL cholesterol is deposited on artery walls. They cause a waxy buildup called plaque. It is known as “bad cholesterol”.

Optimal LDL levels are less than 100 mg/dl or lower if you have heart disease or diabetes or other risk factors (such as family history of heart disease, or if you smoke).

Optimal LDL levels are less than 130 mg/dl if you have no risk factors for heart disease.

How Can I Lower My LDL Level?

- Lose weight if you are overweight.
- Reduce saturated fat found in dairy products, cheese and meat.
- Reduce hydrogenated fats (trans fats) found in French fries, snack crackers, cookies, baking mixes, shortening and stick margarine.
- Use monounsaturated and polyunsaturated fats such as canola, olive, safflower and sunflower oils when cooking.

High Density Lipoprotein (HDL)

HDL takes extra cholesterol out of the body and is called “good cholesterol”.

Desirable HDL levels are greater than 40 mg/dl.

Optimal levels are greater than 60 mg/dl.

A level of 60 or more is considered protective against heart disease.

How Can I Raise My HDL Level?

- Lose weight if you are overweight.
- Exercise regularly (consult with your healthcare provider before beginning any exercise program).
- Don't smoke.
- Replace saturated fat with unsaturated fats.

What About Triglycerides?

Triglycerides are a fat that the body makes from alcohol, sugar, or excess calories. High triglyceride levels may add to buildup of plaque in the blood vessels (atherosclerosis). High triglycerides are a risk factor for heart disease.

- Less than 150 is a normal triglyceride level.
- 150-199 is considered borderline high.
- 200-499 is considered high.
- 500 or more is considered very high.

Decreasing Your Triglycerides

- Lose weight if you are overweight.
- Get regular physical activity (consult with your healthcare provider before beginning any exercise program).
- Decrease or avoid alcohol.
- Decrease sugar-containing foods.

Hemoglobin A1c (also known as glycohemoglobin)

The Hemoglobin A1c test can be used to diagnose diabetes or check how well a patient's diabetes is being controlled. This test checks the long-term control of blood glucose levels for the last 2 to 3 months and does not change with any recent changes in diet, exercise or medicines.

The Hemoglobin A1c test can also help your doctor see how big your risk is of developing problems from diabetes, such as kidney failure, vision problems, and leg or foot numbness. The lower your A1c level, the lower your chance for problems.

- Normal A1c results are less than 5.7%
- Pre-diabetes, or increased risk for diabetes, are results between 5.7% and 6.4%
- Diabetes results are 6.5% and higher

The American Diabetes Association recommends that adults with diabetes have an A1c level less than 7%. If your A1c level is higher than 7%, you may need changes in your diabetes treatment. Talk to your doctor about your diabetes treatment plan and goals.

- A1c is 6%: estimated average blood glucose level is 126 mg/dl
- A1c is 7%: estimated average blood glucose level is 154 mg/dl
- A1c is 8%: estimated average blood glucose level is 183 mg/dl
- A1c is 9%: estimated average blood glucose level is 212 mg/dl
- A1c is 10%: estimated average blood glucose level is 240mg/dl
- A1c is 11%: estimated average blood glucose level is 269 mg/dl
- A1c is 12%: estimated average blood glucose level is 298 mg/dl