



GENERAL HEALTH TESTING

LDL Cholesterol Information Sheet

What is LDL Cholesterol?

Cholesterol is a waxy type of fat (lipid), which travels around the body in the blood. It is an essential molecule, as it is required for building cells, producing bile for digestion, and making vitamins and hormones. Cholesterol is produced in adequate quantities in the liver, but can also be obtained from foods from animals (1).

Cholesterol carried by LDL is often called “bad” cholesterol. LDL deposits excess cholesterol in blood vessel walls, where it accumulates, leading to hardening of the arteries, atherosclerosis, and blood clots. LDL cholesterol levels are often considered to be the best predictor of the risk of heart disease (2).

What are optimal LDL cholesterol levels?

LDL cholesterol levels below 100 mg/dL are considered optimal for adults. Individuals at a very high risk of heart disease due to other risk factors (e.g. obesity, family history, smoking) should keep their LDL cholesterol levels below 70 mg/dL. LDL cholesterol levels above 160 mg/dL in adults are considered high and contribute to an increased risk of cardiovascular disease (3).

Should I get my LDL cholesterol measured?

The Adult Treatment Panel of the National Cholesterol Education Program recommends that a fasting lipoprotein profile (including LDL cholesterol analysis) should be conducted once every five years from the age of 20 years onwards (3).

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What are the risks of elevated LDL cholesterol?

High levels of LDL cholesterol can result in an accumulation in the arteries and plaque formation. This significantly increases the risk of a heart attack, stroke, and peripheral artery disease (4).

Various factors can contribute to elevated LDL cholesterol, including a high intake of saturated fats (from red meat and dairy) and refined sugars, high alcohol consumption, physical inactivity, smoking, and being overweight or obese. Each of these risk factors can be modified by dietary and lifestyle changes (5). There are also risk factors that cannot be changed, including a genetic risk and other medical conditions (6).

How can I reduce my LDL cholesterol?

A combination of losing weight, diet, and exercise is beneficial for reducing high LDL cholesterol. Specific changes include increasing fiber intake, limiting carbohydrate, alcohol, and fat intake, and choosing healthier unsaturated fats instead of saturated and trans fats. Abstaining from smoking and exercising for at least 30 minutes each day are also beneficial (7).

Where can I find more info?

Visit www.genetrackdiagnostics.com for full test information, including specimen collection requirements

CONTACT US:

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NOTE:

This brochure is provided for general information purposes only. It is not intended to replace medical advice from a health professional.

References:

- (1) What is Cholesterol? American Heart Association. (2020).
- (2) HDL (Good), LDL (Bad) Cholesterol and Triglycerides. American Heart Association. (2020).
- (3) Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. (2002). *Circulation*. 106 (25), 3143-421.
- (4) Ravnskov U. (2002) Is atherosclerosis caused by high cholesterol? *QJM*, 95 (6), 397-403.
- (5) Kuklina EV, Yoon PW, Keenan NL. (2010) Prevalence of Coronary Heart Disease Risk Factors and Screening for High Cholesterol Levels Among Young Adults, United States, 1999-2006. *Ann Fam Med*. 8 (4), 327-333.
- (6) Kathiresan S, et al. (2009) Common variants at 30 loci contribute to polygenic dyslipidemia. *Nat Genet*. 41(1), 56-65.
- (7) Wing RR, et al. (2011). Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. *Diabetes Care*. 34 (7), 1481-1486.