

Title:  
High Cholesterol

Author:  
Katie J. Lorentz

Date:  
June 16, 2009

Key words:  
Hyperlipidemia, high cholesterol

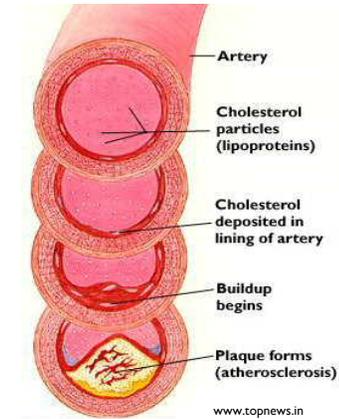
Abstract:  
Patient information regarding high cholesterol; definition, causes/risk factors, evaluation, and treatment options.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.



www.gdisauro.com

# What is high cholesterol?



High cholesterol, or hyperlipidemia in medical terms, is when you have too many particles of this fat-like substance circulating in your blood stream. The problem occurs when these particles begin to deposit in the walls of your blood vessels. As these deposits get larger, less oxygen and nutrients are able to get to the different parts of your body, including your heart and brain.

<u>Drug</u>	<u>How it works</u>	<u>Side Effects</u>
<u>Category</u>		
Statins	Lowers cholesterol by decreasing production and helping the liver remove LDL from the blood	Typically well tolerated; possible muscle aches, increased liver enzyme levels
Bile Acid Sequestrants	Bind cholesterol containing bile acids and assists with elimination via the stool	Constipation, diarrhea, and/or flatulence
Cholesterol Absorption Inhibitors	Inhibits the absorption of cholesterol in the gut	Headache, abdominal pain, constipation and/or diarrhea
Niacin	Decreases liver production of LDL; increased activity of an enzyme that helps breakdown lipoproteins	Flushing or “hot flashes”
Fibrates	Decreased production of triglycerides by the liver; increased activity of the above enzyme	Mild stomach upset and/or muscle pain

## Where can I get more information?

National Cholesterol Education Program

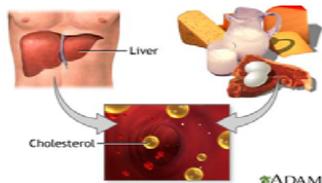
<http://www.nhlbi.nih.gov/chd/>

American Heart Association: For Patients

<http://www.hearthub.org/>

# High Cholesterol

## Where does cholesterol come from?



Cholesterol is found in some of the foods we eat such as dairy products, eggs, and meat; as well as, produced by our liver.

## What causes high cholesterol?

There are many different factors that lead to high cholesterol, some that you cannot control including your genes, age, and gender. Things you can control and may lead to higher cholesterol levels include obesity, low level of activity, a diet with high levels of saturated fat (fatty meats (pork, beef), some cheeses, fried foods), excessive alcohol use, and stress.



## Do I need cholesterol?

Yes, cholesterol, in the correct level in the body, serves many important roles. It helps keep our cell walls healthy, make hormones (the messengers of our body), and make bile acids which assist in fat digestion.

## Are there different types of cholesterol?

Yes, there are many different types of cholesterol; LDL, VLDL, IDL, and HDL. LDL is the “Bad” cholesterol which in high levels, is most likely to clog our blood vessels. HDL is “Good” cholesterol which helps get rid of the “Bad” cholesterol and decreases our risk of heart disease.

## How do I know if I have high cholesterol?

There are no symptoms in the early stages and high cholesterol is usually discovered on routine screening with a lab test performed at your doctor’s office.

## What does the lab test entail and what does it tell me?

The lab test is a blood test that is drawn while you are fasting, which means, nothing to eat or drink, except water, for at least 8-12 hours before the blood draw. The lab test will then tell you what your total cholesterol, HDL, triglycerides, and LDL levels are.

## What are normal levels?

Total cholesterol: < 200 mg/dL

LDL: <130 mg/dL

HDL: >60 mg/dL is protective against heart disease

Triglycerides: <150 mg/dL

## Why does it matter?

If cholesterol levels are too high, the extra cholesterol our body isn’t using, may deposit in blood vessels leading to narrowing of these vessels. Narrowed blood vessels are not able to deliver the amount of oxygen and nutrients different parts of our body needs; such as our heart and our brain. This could lead to events such as heart attack or stroke.

## What do I do about it?

Diet, exercise, and weight loss are the most important things to try to improve your cholesterol levels.



If after diet and exercise, your levels are still high, there are medications that can be used to lower cholesterol levels. Please see the inside flap for a description of the different medications used to fight high cholesterol.