



William J Mesibov MD, FAAP Stuart J Altman MD, FAAP Linda H Jacobs MD, FAAP Lauren Brunn MD, FAAP
 575 Underhill Blvd Syosset, NY 11753 A Division of ProHEALTHcare
 575 Underhill Boulevard Syosset, New York 11791 516.921.2122 www.kidfixer.com

Cholesterol

Most parents probably don't think about what cholesterol means for their kids, but high levels of cholesterol are a major factor contributing to heart disease and stroke, and medical research shows that cardiovascular disease has its roots in childhood. With the dramatic increase in childhood obesity, more and more kids are at risk. Problems associated with high cholesterol generally don't show up for years, so making the connection between kids' health and cholesterol can be difficult.

About Cholesterol

Cholesterol is a waxy substance produced by the liver. It's one of the lipids, or fats, the body makes and is used to form cell membranes and some hormones. If you never ate another bowl of ice cream or another cheeseburger, your body would have enough cholesterol to run smoothly. That's because the liver makes enough for healthy body function. In fact, the liver produces about 1,000 milligrams of cholesterol a day. The rest comes from the foods we eat. While vegetables, fruits, and grains don't have any cholesterol, foods from animals do, especially meats, egg yolks, and dairy.

Good vs. Bad Cholesterol

Cholesterol doesn't move through the body on its own. It has to combine with proteins to travel through the bloodstream to where it's needed. Cholesterol and protein traveling together are called lipoproteins. Low-density lipoprotein (LDL) and high-density lipoprotein (HDL) are the two most important lipoproteins.

• **Low-density lipoproteins (LDL)** or "bad cholesterol" carries cholesterol to the heart and blood vessels. If there's too much LDL in the bloodstream, it can build up on the walls of the arteries that lead to the heart and the brain. This buildup forms plaque — a thick, hard substance that can cause blood vessels to become stiffer, narrower, or blocked. High levels of LDL increase the risk for heart disease and stroke.

• **High-density lipoproteins (HDL)** or "good cholesterol" carries cholesterol away from the arteries and back to the liver, where it's processed and sent out of the body. High levels of HDL can help protect the circulatory system.

Three major factors contribute to high HDL levels:

- **Diet:** a diet high in fats, particularly saturated and trans fats
 - **Heredity:** having a parent with high cholesterol
 - **Obesity:** related to both diet and lack of exercise
- Kids who are physically active, eat healthy foods, don't have a family history of high cholesterol, and aren't overweight usually aren't at risk for high cholesterol.

Treating High Cholesterol

According to the National Cholesterol Education Program (NCEP) ideal cholesterol is less than 170, and levels between 170 and 199 are considered borderline. Ideal LDL is less than 110, with values between 110 and 129 borderline. Here are several ways to help keep your family's cholesterol at healthy levels:

1. **Serve a diet rich in fruit, vegetables, and whole grains.**
2. **Choose lean poultry, fish, and vegetable alternatives, such as legumes (dried beans, peas, and lentils), and tofu or other soy products.**
3. **Read nutrition labels so that you can limit cholesterol and saturated and trans fat intake.**
4. **Choose nonfat or low-fat milk and dairy products.**
5. **Limit cookies and cakes. Instead serve healthy snacks such as fresh fruit, vegetables with low-fat dip, lite popcorn, and low-fat yogurt.**
6. **Get plenty of exercise. Exercise helps boost HDL levels in the blood — and that's a good thing.**
7. **Stay away from the following foods:**
 - Butter
 - Egg yolks
 - Red meat
 - Cheese

Instead of ...

Red meat
 Eggs
 Whole milk and full fat yogurt
 Cheese
 Cookies and cakes

Try

Fish, lean poultry, tofu and legumes (beans, peas, lentils)
 Egg whites
 1% milk and low-fat yogurt
 Fruit spread on that bagel
 Healthy snacks, such as fruit, veggies with low-fat dip, lite popcorn