

# Cholesterol screening in children and teens

## What are my child's/teens levels?

	Your Value	Goal
<b>Total cholesterol</b>		Less than 170 mg/dl
<b>LDL*</b>		Less than 110 mg/dl
<b>HDL</b>		Greater than 45 mg/dl
<b>Non-HDL</b>		Less than 120 mg/dl
<b>Triglyceride*</b>		Less than 75 mg/dl (0-9 years) Less than 90 mg/dl (10-19 years)

\* **Not accurate if child did not fast before the test.**

\_\_\_\_\_ **Normal**      \_\_\_\_\_ **Borderline Elevated**      \_\_\_\_\_ **Elevated**

## What is cholesterol?

Cholesterol is a fat-like substance that is found in the human body. It is made naturally by your liver. It is also found in food from animals such as meat, eggs and dairy. It is needed for many of your body's basic needs. It helps build bones, make hormones and form protective layers of your skin. There are three main types of cholesterol:

- LDL (low density lipoproteins). Known as "bad" cholesterol. It carries most of the cholesterol in the blood and can lead to a build-up of cholesterol in the blood vessels. You want your LDL to be low.
- HDL (high density lipoprotein). Known as "good" cholesterol. It helps take cholesterol out of the body by carrying it back to the liver to be removed. You want your HDL to be high.
- Triglycerides. Another type of fat in the blood that can lead to heart disease.

## Why should my child or teen be screened?

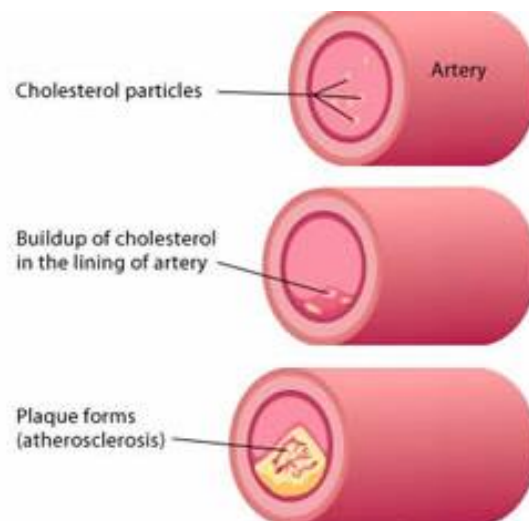
Too much cholesterol (high levels) can be harmful. High levels can cause blood vessels in the heart or brain to become blocked. This is called atherosclerosis, and can start as early as preschool age. It puts a child/teen at risk for heart disease such as a heart attack or stroke in later life.

Children and teens can reduce cholesterol levels with proper diet and exercise. This may help them have lower cholesterol levels as adults.

## When should screening be done?

In 2011, the American Academy of Pediatrics, said that **all** children should be screened for high cholesterol:

- At least once between the ages of 9 and 11 years old, and
- Between the ages of 17 and 21 years old.



If any of these risk factors are present, a child should be screened as early as two years old:

- Parents or grandparents had a heart attack or stroke before 55 years old (male) or 65 years old (female).
- At least one parent has high cholesterol.
- Family history is unknown.
- Being overweight or obese.
- Have high blood pressure or diabetes.
- If the child or teenager smokes cigarettes.

In 2018, the American Academy of Pediatrics suggests elective screening for children as young as 2 years old who have a family history of heart disease or high cholesterol.

### How often should cholesterol be checked?

A cholesterol screening can be done by a blood test at any time. This test looks at the non-HDL and HDL level.

If your child's cholesterol level is normal at age:

- 9-11 years, it will be checked again at ages 17-21 years.
- 17-21 years, it should be checked again every 3 to 5 years.

If your child's cholesterol level(s) is elevated, a fasting lipid panel will be done. This is a blood test done to confirm the higher levels found on the screening test. Your child must fast (nothing to eat) for at least 10 hours before the test. A lipid panel looks at the total cholesterol, triglyceride, HDL and LDL level.

If the cholesterol levels on the lipid panel are high, your child should:

- Eat a healthy diet. Be sure foods are low in cholesterol and saturated fats.
- Get more physical activity.
- Try to stick to these goals:
  - **3** Eat three meals each day.
  - **2** Have less than two hours of sedentary activity such as watching TV and playing video games a day.
  - **1** Get at least one hour of physical activity each day.
  - **0** Do not drink beverages with added sugar.

The fasting lipid panel will be done again, six months after diet and exercise changes are made. If these changes do not lower cholesterol levels, your child may be referred to a specialist. Medicine may be needed to help lower the cholesterol levels.

**ALERT:** Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

**This sheet was created to help you care for your child or family member. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment and follow-up.**