Screening for Lipid Disorders in Children and Adolescents

Although lipid disorders typically occur in adults, children and adolescents can also be affected.

What Are Lipid Disorders?
Lipid disorders, also called dyslipidemia or "high cholesterol," refer to abnormal levels of cholesterol and/or fats in the blood.

There are 2 main types of cholesterol: low-density lipoprotein cholesterol (LDL-C; "bad" cholesterol) and high-density lipoprotein cholesterol (HDL-C; "good" cholesterol). Triglycerides are a type of fat in the blood. Common lipid disorders include high LDL-C, low HDL-C, and high triglyceride levels. Having high cholesterol generally refers to having high LDL-C levels.

High cholesterol in children can be due to both genetic and lifestyle factors (including poor diet and lack of exercise). One genetic disease that causes very high cholesterol levels in children is called familial hypercholesterolemia, which often does not cause symptoms in children and adolescents.

Lipid disorders in both children and adults increase the risk of plaque buildup inside blood vessels (atherosclerosis). When atherosclerosis occurs in the blood vessels of the heart or brain, it can lead to heart attacks and strokes (types of cardiovascular disease that can lead to death).

Screening for Lipid Disorders
The term screening means looking for a condition or illness in individuals who do not have specific symptoms or concerns related to that illness. Screening for lipid disorders is done by a blood test to measure levels of LDL-C, HDL-C, and triglycerides.

Pros and Cons of Screening for Lipid Disorders in Children and Adolescents
One might naturally presume that screening would be beneficial, but sometimes looking for problems when there are no concerns or symptoms can be harmful. Therefore, it is important to carefully weigh the pros and cons of screening.

Pros of screening include finding and treating high cholesterol earlier rather than later. Although it is known that early treatment of high cholesterol with medications lowers LDL-C levels in children, there are not enough data to show that treatment during childhood affects heart health in adulthood. There are also no data that directly link screening for lipid disorders in childhood to lower chances of heart attack or stroke in adulthood.

Cons of screening include potential side effects from medications used to treat high cholesterol (such as effects on the liver or muscles). However, there are not many data that quantify these side effects in children.

Should My Child Be Screened for Lipid Disorders?
According to the USPSTF, the evidence on screening children and adolescents for lipid disorders is still unclear. You should share any concerns you have about cholesterol or heart health with your child's doctor, and they can take the best course of action for your child.

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