



Cholesterol and KIDS

Cholesterol Screening

The American Academy of Pediatrics has issued new cholesterol screening and treatment recommendations for children. The policy statement, "[Lipid Screening and Cardiovascular Health in Childhood](#)," recommends cholesterol screening of children and adolescents with a family history of high cholesterol or heart disease. It also recommends screening patients whose family history is unknown or those who have other factors for heart disease including obesity, high blood pressure or diabetes. Screening should take place after age two, but no later than age 10. The best method for testing is a fasting lipid profile. If a child has values within the normal range, testing should be repeated in three to five years. For children who are more than eight years old and who have high LDL concentrations, cholesterol-reducing medications should be considered. Younger patients with elevated cholesterol readings should focus on weight reduction and increased activity while receiving nutritional counseling. The statement also recommends the use of reduced-fat dairy products, such as two percent milk, for children as young as one year of age for whom overweight or obesity is a concern.

Overview

Although it may seem like an older person's concern, heart disease--or at least its earliest signs--can begin in childhood, according to the American Heart Association. Parents can take steps to reduce their children's risk factors and give them the best chance at a long, healthy life. Cholesterol is an important item for parents to consider when planning meals and monitoring their children's health.

Definition

Cholesterol is a waxy material that your body uses in making certain hormones and in forming cell membranes. Your liver produces approximately 1,000 milligrams (mg) of the substance each day, which is all that your body needs, according to KidsHealth.org. Cholesterol is a type of fat known as a lipid. You get additional cholesterol from animal-based foods, including dairy products, egg yolks, meat and seafood.

Types

Your total cholesterol count consists of three elements: your low-density lipoprotein, or LDL; your high-density lipoprotein, or HDL; and triglycerides and Lp(a) cholesterol. LDL can, with other material, stick to your arteries and cause the hardening known as atherosclerosis, possibly leading to a stroke or heart attack, according to the American Heart Association. LDL is this known as bad cholesterol. HDL, on the other hand, protects against heart attack and is known as good cholesterol, helping to remove excess cholesterol from the body. High levels of triglycerides and Lp(a) cholesterol tend to correlate with heart disease, the American Heart Association reports.

Recommendations

For people between age 2 and 19, total cholesterol should be less than 170 milligrams per deciliter (mg/dL), according to the American Heart Association. LDL should be less than 110 mg/dL. Total cholesterol of 170 to 199 mg/dL and 110 to 129 mg/dL make up the "borderline" range. Levels above those are considered high. HDL should be 35 mg/dL or higher. Triglycerides should not exceed 150 mg/dL.

Risks

By making sure your children's cholesterol stays in check, you may be helping them to stave off heart disease when they get older, according to KidsHealth.org. This is particularly true if they face higher risk of heart disease and stroke based on a family history of those conditions. If your child's cholesterol levels are too high, you can work with a pediatrician to find ways to get them to an appropriate level.

Solutions

KidsHealth.org recommends nutritional and lifestyle counseling for children whose LDL exceeds acceptable levels. The focus should be on reducing fat intake and increasing physical activity levels. If those methods do not work, a doctor can prescribe medications for children age 8 or older.

Overview

Children with a family history of high cholesterol and heart disease, or whose history is unknown, should have their cholesterol screened, according to the American Academy of Pediatrics (AAP). In addition, screenings are important when other risk factors are present, such as obesity, high blood pressure and diabetes.

Method

The best method for cholesterol screening in children, according to the AAP, is a fasting lipid profile.

Time Frame

According to the AAP, children's cholesterol screenings should begin after age two years, and the first screening should be done no later than age 10 years.

Repeat Screenings

If the cholesterol screening results are normal, testing should be repeated in five years.

Prevention/Solution

When cholesterol screenings reveal high LDL (bad cholesterol, which can build up and with other substances form plaque in the arteries) concentrations, children who are older than eight years may require medications to manage cholesterol in addition to nutritional counseling, weight reduction methods and regimens to increase activity. Younger children with elevated readings would also be treated with these methods, though medications may not be used.

AHA Pediatric Dietary Strategies for Individuals Aged >2 Years

- Balance dietary calories with physical activity to maintain normal growth
- 60 Minutes of moderate to vigorous play or physical activity daily
- Eat vegetables and fruits daily, limit juice intake
- Use vegetable oils and soft margarines low in saturated fat and *trans* fatty acids instead of butter or most other animal fats in the diet
- Eat whole grain breads and cereals rather than refined grain products
- Reduce the intake of sugar-sweetened beverages and foods
- Use nonfat (skim) or low-fat milk and dairy products daily
- Eat more fish, especially oily fish, broiled or baked
- Reduce salt intake, including salt from processed foods

Tips for Parents to Implement AHA Pediatric Dietary Guidelines

- Reduce added sugars, including sugar-sweetened drinks and juices
- Use canola, soybean, corn oil, safflower oil, or other unsaturated oils in place of solid fats during food preparation
- Use recommended portion sizes on food labels when preparing and serving food
- Use fresh, frozen, and canned vegetables and fruits and serve at every meal; be careful with added sauces and sugar
- Introduce and regularly serve fish as an entrée
- Remove the skin from poultry before eating
- Use only lean cuts of meat and reduced-fat meat products
- Limit high-calorie sauces such as Alfredo, cream sauces, cheese sauces, and hollandaise
- Eat whole grain breads and cereals rather than refined products; read labels
- and ensure that "whole grain" is the first ingredient on the food label of these products
- Eat more legumes (beans) and tofu in place of meat for some entrées
- Breads, breakfast cereals, and prepared foods, including soups, may be high in salt and/or sugar; read food labels for content and choose high-fiber, low-salt/low-sugar alternatives