Promoting a healthy cholesterol level

A good diet and appropriate cholesterol screening are cornerstones of maintaining healthy cholesterol levels.

Diet. Offer the following diet information to parents and patients during routine office counseling or when measuring cholesterol. This advice also can be used as preliminary counseling for children with hypercholesterolemia before referring to a dietitian.

- Five food types are associated with longevity: fruits, vegetables, whole grains, legumes (beans), and fish. Overall, people eat too few legumes and whole grains, which are high in fiber and are good sources of protein and micronutrients.
- Changing to low-fat dairy products containing no more than 1% fat is often sufficient for children younger than 5 years to meet the recommended diet.
- Food preparation is key. Frying, cooking with fat, and adding fats by preparing sauces should be avoided. Substitutions can be made for fats when feasible (egg whites for whole eggs, for example).
- It is okay to eat at fast food restaurants and to have pizza. Choose regular hamburgers, grilled chicken (use barbecue sauce, ketchup, or regular mustard), salads (watch the dressing), thin crust pizza (without meat toppings or extra cheese) and low-fat dairy desserts. Remember that restaurant foods often contain hidden fats.
- Oils that are liquid at room temperature are healthy (particularly olive and canola) and those that are solid in room temperature are unhealthy.
- Read food labels.
- Avoid free sugars; they are often in nutrient-poor foods, such as fruit drinks, soda pop, and many snacks advertised as low fat.
- Increase dietary fiber by eating more whole grains, legumes, fruits, and vegetables.

For sophisticated diet assessment and counseling, which may be appropriate if a child's diet initially is poor, refer to a skilled dietitian. Frequent follow-up improves outcome. Patients who might benefit the most from counseling are those with FH who are too young for medicine and those with an LDL cholesterol level that is consistently between 110 mg/dL and 190 mg/dL.

Cholesterol screening. Perform cholesterol screening at an office visit, when you also can take the time to do some counseling. Between 5 and 7 years of age is optimal because children can learn to read food labels. They may also be more receptive to a health message at that age than when they are older. Measurement of total cholesterol or HDL cholesterol does not require fasting, which clears chylomicrons from the bloodstream; calculation of LDL cholesterol does require fasting.

The cholesterol level increases immediately before puberty and declines during the rapid growth spurt. It is lowest at 12 to 14 years of age in girls and 15 to 17 years of age in boys. Cholesterol assessment also can uncover several dyslipidemias. Reassure families of children with a mild elevation of cholesterol that diet may well be sufficient to reach a healthy level. A child with FH, on the other hand, probably needs cholesterol-lowering medical therapy at some point in life.

Last, in making cholesterol management part of office practice, forget about stereotypes. Many patients with genetic hyperlipidemia are lean and on a good diet. Overweight patients may have a normal lipid level. And don't forget that hypothyroidism can cause dyslipidemia.

dietary measures with conventional medical treatment and current diet during a three-year period in more than 600 children, from 8 to 11 years of age, with elevated LDL cholesterol.[26] Dietary treatment was associated with a small but statistically significant reduction in LDL cholesterol, and the diet was found to be safe across a range of anthropometric, hormonal, psychologic, and nutritional endpoints.

The Turku Infant Study of a low–saturated-fat and low-cholesterol diet was begun in Finland with infants from 6 months to 1 year of age[27]; follow up has passed the five-year mark. Again, mild cholesterol lowering and the safety of such a diet across a broad range of endpoints and efficacy was demonstrated. Preliminary data also suggest that persons on the lower fat diet may be less obese than controls.

The diets in both these studies were slightly more restrictive than the low-fat, low-cholesterol population diet discussed above and were well accepted by participants. These studies therefore establish the safety of the population diet. In fact, this diet has been endorsed in the prevention of a wide range of chronic diseases of adulthood.[28]

Questions about the safety of a low-fat and low-cholesterol diet raised a decade ago have been put to rest, but questions about efficacy remain. This discussion has been