

Lipid Screening Called for in 9- to 11-Year-Olds

BY HEIDI SPLETE
FROM PEDIATRICS

Perhaps the best news about the cholesterol testing now recommended for all children aged 9-11 years by an expert panel convened by the National Heart, Lung, and Blood Institute is that children don't have to fast before getting their blood drawn.

Dr. Stephen R. Daniels, chair of the expert panel that reviewed the guidelines, emphasized that the new approach to cholesterol screening can be accomplished with a blood test that does not require fasting, so it should be relatively easy to include in a busy practice. This strategy "ensures that children with elevated LDL (or bad

cholesterol will be identified."

Data from studies of the previous cholesterol-screening approach suggest that children with high cholesterol have often been missed, said Dr. Daniels, pediatrician-in-chief at the University of Colorado at Denver, Aurora.

Previous studies have shown that cardiovascular problems in adulthood are often the end result of cardiovascular risk factors that went unrecognized throughout childhood, according to the report (Pediatrics 2011 Nov. 13 [doi:10.1542/peds.2009-2107C]).

The current guidelines represent the latest update since the 1990s, said Dr. Daniels.

"These guidelines are different in that they are based on a

comprehensive and systematic review of the literature, they are integrated across all risk factors (hypertension, dyslipidemia, obesity, diabetes, and cigarette smoking) and lifestyle factors (diet and physical activity), and they address issues across the pediatric age range," he said in an interview.

The "Expert Panel on Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents Summary Report" provides details for how to reduce risk factors and help prevent cardiovascular problems in children from birth to 21 years, starting with a recommendation for exclusive breastfeeding of children for the first 6 months of life.

However, the most notable

new element in the guidelines is universal cholesterol-screening recommendation for preadolescents. According to the guidelines, doctors should obtain a universal lipid screen with nonfasting non-HDL cholesterol (that is, total cholesterol minus HDL cholesterol) or a fasting lipid profile (FLP) for all children at least once between the ages of 9 and 11 years, and "manage per lipid algorithms as needed." Diet and exercise are recommended as first-line treatment, but statins may be considered in children whose high cholesterol persists despite diet and lifestyle interventions.

The guidelines recommend obtaining an FLP at age 12-17 years if a child's family history is newly positive, if a parent has

dyslipidemia, or if the child has any other risk factors or high-risk conditions, and then managing per lipid algorithms as needed.

For all patients aged 18-21 years, the guidelines recommend measuring one nonfasting non-HDL or FLP, and then reviewing the results with patients and managing them with lipid algorithms per Adult Treatment Panel III as needed.

Dr. Daniels has served as a consultant for Abbott Laboratories, Merck, and Schering-Plough, and has received funding/grant support for research from the National Institutes of Health. Other members of the committee that reviewed the guidelines disclosed research support from various agencies and pharmaceutical companies. ■

Obese Children Who Lose Weight Decrease Their CV Risks

BY MARY ANN MOON
FROM THE NEW ENGLAND JOURNAL OF MEDICINE

Overweight or obese children who lose weight by the time they reach young adulthood markedly decrease their cardiovascular risks, according to a report.

Although childhood overweight and obesity frequently persist into adulthood, some children lose weight, often during adolescence, and become nonobese adults. According to this analysis of four large cohort studies that tracked cardiovascular risk factors over two decades, such weight loss dramatically reduces

the pessimistic view that once childhood obesity is established, CV risk is also determined, but should recognize that CV risk may be substantially reduced if childhood obesity is successfully treated," said Dr. Juonala and his colleagues in the International Childhood Cardiovascular Cohort Consortium.

The consortium was created specifically to analyze the data pooled from four cohorts – the Bogalusa Heart Study and the Muscatine Study in the United States, the Childhood Determinants of Adult Health study in Australia, and the Cardiovascular Risk in Young Finns study in Finland – in which subjects underwent a baseline assessment of CV risk factors at ages 3-18 years and a follow-up assessment a mean of 23 years later.

There were 6,328 subjects (2,961 males and 3,367 females). At baseline during childhood, the prevalence of overweight or obesity was 12.2%, and that of obesity was 2.3%. At follow-up during young adulthood, the prevalence of overweight or obesity was 54.9%, and that of obesity was 20.7%.

As expected, "our data confirm both the increase in CV risk associated with childhood overweight or obesity and the tracking of adiposity between childhood and adulthood," the investigators said.

A total of 774 subjects had been overweight or obese as children, and 500 of them (64.6%) remained obese as adults. Another 147 subjects had been obese as children, and 121 (82.3%) of them remained obese as adults. In these subjects, overweight or obesity were strong predictors of type 2 diabetes, hypertension, poor cholesterol profiles, and reduced carotid-artery intima-media thickness (a proxy measure for incipient CV disease, since the cohorts were too young to have experienced CV events).

Among 5,554 subjects who had had normal weight as children, 812 (14.6%)

VITALS

Major Finding: The subjects who had been normal weight throughout the study and those who had been overweight or obese as children but became nonobese by young adulthood, had no increased relative risk for developing type 2 diabetes, whereas those who were overweight or obese in childhood and remained so in young adulthood had a 5.4-fold increase in relative risk for developing type 2 diabetes, and those who were obese in childhood and remained so in young adulthood had a 4.5-fold increase in relative risk for developing type 2 diabetes.

Data Source: A pooled analysis of data from four longitudinal cohort studies of CV risk factors in 6,328 subjects who were assessed at ages 3-18 years and again a mean of 23 years later during young adulthood.

Disclosures: This pooled analysis was supported by funding for the original four longitudinal cohort studies. Dr. Juonala reported no relevant financial disclosures. Dr. Juonala's associates reported ties to Pfizer, Merck, and AstraZeneca.

were obese as adults. As expected, these subjects who were of normal weight in childhood but became overweight or obese as adults also had adverse CV risk profiles.

However, subjects who had been overweight or obese as children but became nonobese by young adulthood had CV risk profiles similar to those of subjects who had been of normal weight throughout their lives, Dr. Juonala and his associates wrote (N. Engl. J. Med.

2011;365:1876-85).

For example, the subjects who had been normal weight throughout the study and those who had been overweight or obese as children but became nonobese by young adulthood had no increased relative risk for developing type 2 diabetes, whereas those who were overweight or obese in childhood and remained so in young adulthood had a 5.4-fold increase in relative risk for developing type 2 diabetes. ■



Eighty-two percent of obese children were obese as adults, versus only 15% of normal-weight children.

their risk of type 2 diabetes, hypertension, dyslipidemia, and carotid-artery atherosclerosis in young adulthood, wrote Dr. Markus Juonala of the Research Center of Applied and Preventive Cardiovascular Medicine, University of Turku (Finland), and his associates.

"Although the observational nature of our study precludes making clinical recommendations, we hypothesize that reducing BMI [body mass index] in children and adolescents who are overweight or obese could reduce their cardiovascular risk. If this hypothesis is correct, primary care physicians should not take

Target the Right Population

VIEW ON THE NEWS

Juonala et al. found that during an interval of almost 25 years, "only 15% of subjects who were of normal weight as children [became] obese as adults, whereas 65% of those who were overweight or obese as children and 82% of those who were obese as children were obese as adults," said Dr. Albert P. Rocchini. "These figures suggest that targeting interventions for obesity prevention and treatment specifically to children who are at high risk for becoming obese will prove to be a

more valuable and more cost-effective strategy than targeting these interventions to whole populations of children," he noted.

DR. ROCCHINI is in the pediatric cardiology division at C.S. Mott Children's Hospital and the University of Michigan, Ann Arbor. These remarks were taken from his editorial comment accompanying the report of Dr. Juonala et al. (N. Engl. J. Med. 2011;365:1927-9). Dr. Rocchini said he had no relevant financial disclosures.