

Low-Fat Diet Safely Lowers Lipids in Children

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Dietary counseling of parents and their children about diets low in saturated fats reduced cholesterol levels in children up to age 14 without affecting growth, development, or the onset of puberty, in a Finnish study

The Special Turku Coronary Risk Factor Intervention Project (STRIP), a prospective, randomized, controlled study, involved 1,062 children recruited at age 7 months. The researchers, led by Dr. Harri Niinikoski of the University of Turku (Finland), gave intensive counseling on a low-fat, low-cholesterol diet to 540 children and their families. The other 522 received no special dietary advice (Circulation 2007 [doi: 10.1161/CIRCULATIONAHA.107.699447]).

The intervention resulted in small differences in serum lipid and lipoprotein values throughout childhood and up to

A low-fat diet from infancy to adolescence may help cut serum lipids and does not seem to have a negative effect on development, growth, or onset of puberty.

age 14. In boys, for example, the difference in serum cholesterol values between the intervention and control group was about 5% and was statistically significant. In girls the difference was 2%-4% depending on age, but did not

reach statistical significance. Similarly, dietary counseling affected triglyceride levels significantly in boys, but not in girls.

In the group that received dietary counseling, both genders consumed diets significantly lower in fat and saturated fat and significantly higher in protein and carbohydrates than did the children who received no counseling.

The investigators found no significant differences in growth or development between the intervention and control groups. For example, there were no differences in heights and weights, and about 60% of both groups had entered puberty by age 11. In girls the median age of menarche was 13.0 in the intervention group and 12.8 in the control group, a nonsignificant difference.

"I think that the major importance here is providing a reassurance that giving lower fat, lower saturated-fat diets to children from infancy up until adolescence, while having a positive effect on reducing serum lipids, has no negative effect on growth, development, [or] onset of puberty," said Dr. Alan B. Lewis in an interview. "The information is very reassuring in that regard.

"And notice these are not ultra-low-fat diets," continued Dr. Lewis a pediatric cardiologist who runs a preventive cardiology program at Childrens Hospital Los Angeles who was not involved in the study. "[The investigators] talked about total fat intake of 30%-35% of total calories. And the American Heart Association's recommendations for a good, healthful, nutri-

tional diet is approximately 30% of calories from fat, with an emphasis being on the reduction of saturated fats and proportionally greater amount of polyunsaturated fats, and that's what they did. This is really a very modest limitation in fats."

Families in the intervention group had the benefit of individualized diet counseling from a nutritionist every 1-3 months until the child reached age 2, and twice annually thereafter. Starting at age 7 the children were counseled directly.

Investigators saw the control families twice a year until the child reached age 7, and once a year thereafter.

"This diet is not vegetarian or even close to it," Dr. Niinikoski emphasized in a statement prepared by the American Heart Association. "Our aim was not to reduce intake of cholesterol and total fat in infancy. The children were advised to use meat and fish, etc., but to choose meat and milk products lower in saturated fat."

Regarding the relatively small differ-

ences in lipids and lipoproteins between the two groups, Dr. Niinikoski said, "In the long run, even a minor decrease in serum cholesterol concentrations in a large population can have a major influence on coronary heart disease."

Families in STRIP were recruited during February 1990-June 1992 at well-baby clinics in Turku. The study was supported by grants from a number of Finnish foundations. The authors stated that they had no conflicts of interest to disclose. ■

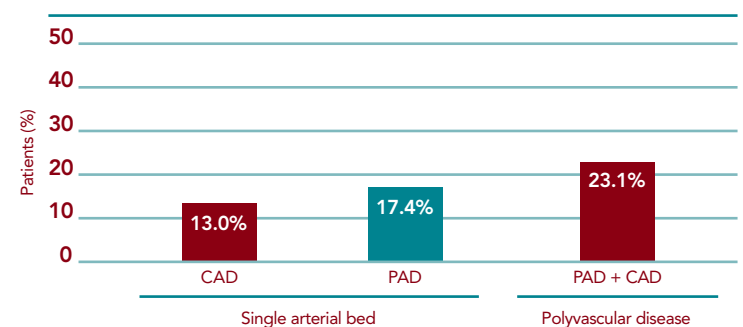
Peripheral Arterial Disease Making the CV Connection

The major health impact of an underdiagnosed, undertreated disease



About 1 in 5 patients with established PAD had a major cardiovascular event within 1 year¹

REACH Registry: 1-year Incidence of CV Death, MI, Stroke, or Hospitalization^{1*}



The REACH (REduction of Atherothrombosis for Continued Health) Registry is the first outpatient registry to outline the real-world burden of atherothrombosis on a global basis. Baseline data have been collected from more than 68,000 patients in 44 countries. A total of 64,977 patients were included for the 1-year follow-up. REACH is sponsored by sanofi aventis and Bristol-Myers Squibb.

*Causes for hospitalization included TIA, unstable angina, and other ischemic arterial events, including worsening of PAD.

The REACH Registry, which included more than **68,000 patients**, is one of the largest and most recent observational studies to outline the real-world burden of atherothrombosis.¹