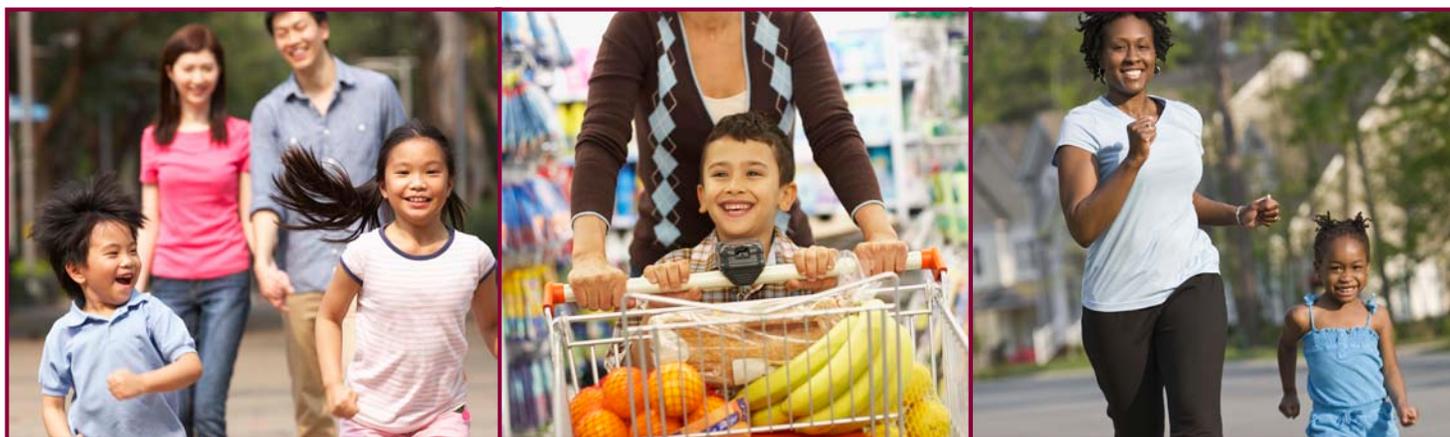


Childhood Lifestyle and Clinical Determinants of Adult Cardiovascular Health

The following is a synopsis of “Childhood Lifestyle and Clinical Determinants of Adult Ideal Cardiovascular Health: The Cardiovascular Risk in Young Finns Study, the Childhood Determinants of Adult Health Study, the Princeton Follow-up Study,” published in the *International Journal of Cardiology* in October 2013.



What is already known on this topic?

The American Heart Association (AHA) has developed seven health metrics for determining ideal cardiovascular health:

1. Never smoked or quit more than 12 months ago.
2. Body mass index (BMI) less than 25 kg/m².
3. Physical activity at goal levels.
4. Diet consistent with current guideline recommendations.
5. Untreated total cholesterol less than 200 mg/dl.
6. Untreated blood pressure less than 120/80 mm Hg.
7. Untreated fasting plasma glucose less than 100 mg/dl.

Recent studies have shown that few people achieve these seven metrics of ideal cardiovascular health and that achieving a greater number of these metrics in adulthood is associated with a lower risk for cardiovascular disease (CVD) and death. Furthermore, researchers have shown that the number of ideal cardiovascular health metrics present in childhood is associated with a lower risk for several CVD risk factors in adulthood.

What is added by this document?

To effectively promote ideal cardiovascular health early in life, the authors examined a comprehensive set of factors from childhood that predict adult ideal cardiovascular health using

data from subjects participating in long-term research studies in three countries: Finland, Australia, and the United States.

The authors found that several CVD risk factors in childhood were significantly associated with ideal cardiovascular health in adulthood when considering risk factors, age, and sex (see table).*

CVD Risk Factors in Childhood That Are Associated with Ideal Cardiovascular Health in Adulthood

	United States	Finland	Australia
Direct Association			
Family Socioeconomic Status	X	X	X
Inverse Association			
Parental Smoking	NA	X	NS
Own Smoking	NA	NA	X
BMI	X	X	X
Systolic Blood Pressure	NA	X	NA
Low-Density Lipoprotein Cholesterol	NS	X	NA

*X = statistically significant (p < 0.05); NS = not statistically significant; NA = not statistically significant in preliminary analyses or lack of data.

What are the applications for these findings?

These findings emphasize that public health efforts could focus on children (1) from families of lower socioeconomic status and (2) who smoke or whose parents smoke to prevent CVD in adulthood. The findings on socioeconomic status

support a recent AHA Scientific Statement, which encourages putting into action socially and culturally appropriate community-wide interventions to reduce health disparities and inequities. Families of lower socioeconomic status could be a primary target for interventions to promote ideal cardiovascular health and thus reduce the risk for CVD and death in adulthood.

Resources

American Heart Association

Healthier Kids

www.heart.org/HEARTORG/GettingHealthy/HealthierKids/Healthier-Kids_UCM_304156_SubHomePage.jsp

Life's Simple 7™

<http://mylifecheck.heart.org/Multitab.aspx?NavID=3>

Guide for Improving Cardiovascular Health at the Community Level, 2013 Update: A Scientific Statement for Public Health Practitioners, Healthcare Providers, and Health Policy Makers

<http://circ.ahajournals.org/content/127/16/1730>

Citations

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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