Combined Impact of Negative Lifestyle Factors on Cardiovascular Risk in Children: A Randomized Prospective Study

# Details

## DOI

10.1016/j.jadohealth.2014.07.007

## Issued

2014

## Language

English

## Volume

55

## Issue

6

## Start Page

## End Page

## Authors

Meyer U.;Schindler C.;Bloesch T.;Schmocker E.;Zahner L.;Puder J.;Kriemler S.

## Type

Journal article

## Journal

Journal of Adolescent Health

## Publisher

Elsevier BV

## Sample

School children age 6-13

## Implications For Parents About

Parental practices / parental mediation

# Abstract

Purpose: Negative lifestyle factors are known to be associated with increased cardiovascular risk
(CVR) in children, but research on their combined impact on a general population of children is
sparse. Therefore, we aimed to quantify the combined impact of easily assessable negative lifestyle
factors on the CVR scores of randomly selected children after 4 years.
Methods: Of the 540 randomly selected 6- to 13-year-old children, 502 children participated in a
baseline health assessment, and 64% were assessed again after 4 years. Measures included anthropometry,
fasting blood samples, and a health assessment questionnaire. Participants scored one point
for each negative lifestyle factor at baseline: overweight; physical inactivity; high media consumption;
little outdoor time; skipping breakfast; and having a parent who has ever smoked, is inactive, or
overweight. A CVR score at follow-up was constructed by averaging sex- and age-related z-scores of
waist circumference, blood pressure, glucose, inverted high-density lipoprotein, and triglycerides.
Results: The age-, sex-, pubertal stage-, and social classeadjusted probabilities (95% confidence interval)
for being in the highest CVR score tertile at follow-up for childrenwho had atmost one (n¼48),
two (n¼64), three (n¼56), four (n¼41), or five ormore (n¼14) risky lifestyle factorswere 15.4%(8.9e
25.3), 24.3% (17.4e32.8), 36.0% (28.6e44.2), 49.8% (38.6e61.0), and 63.5% (47.2e77.2), respectively.
Conclusions: Even in childhood, an accumulation of negative lifestyle factors is associated with
higher CVR scores after 4 years. These negative lifestyle factors are easy to assess in clinical practice
and allow early detection and prevention of CVR in childhood.

# Outcome

Media consumption has no direct effect on cardiovascular risk in children