

Childhood risk factors directly tied to adult cardiovascular disease

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Childhood risk factors are associated both directly and indirectly to adult cardiovascular disease (CVD), according to a study [published](#) online June 24 in *JAMA Network Open*.

Noora Kartiosuo, from the University of Turku in Finland, and colleagues quantified the direct and indirect effects of childhood risk factors on adult CVD and their relative importance during different life-course stages. Analysis included 10,634 participants followed for a median 23.6 years.

The researchers found that childhood risk factors ([low-density lipoprotein cholesterol](#) [LDL-C], total cholesterol [TC], triglycerides, [systolic blood pressure](#) [SBP], smoking, body mass index [BMI], and a combined score of these) were associated with CVD.

There were direct pathways observed for childhood BMI (direct effect for incidence rate ratio [RR] per one [standard deviation](#) [SD] unit, 1.18) and LDL-C (direct effect for incidence RR, 1.16), while the indirect effects were larger for TC, triglycerides, SBP, and the combined score. CVD was only affected by childhood smoking via adulthood smoking.

Childhood BMI plays nearly as important a role as adult BMI on risk of CVD, whereas for other childhood risk factors and the combined score, adulthood was the more important period.

"These findings suggest that intervention for [childhood](#) risk factors, in particular BMI, is warranted to reduce incidence of adult CVD as it cannot be fully mitigated by risk factor management in adulthood," the authors write.

More information: Noora Kartiosuo et al, Cardiovascular Risk Factors in Childhood and Adulthood and Cardiovascular Disease in Middle Age, *JAMA Network Open* (2024). [DOI: 10.1001/jamanetworkopen.2024.18148](#)

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