

Poor kids twice as likely to suffer from arthritis, hypertension in adulthood

October 18 2012, by Susan Kelley

(Medical Xpress)—The tentacles of childhood poverty reach even further than previously thought, a new Cornell study finds.

Children who are poor from the time they are born through age two are twice as likely to suffer from arthritis and [high blood pressure](#) when they grow up. Those diseases hit them young and hard, affecting them as early as age 30 and causing them to earn less per year and per hour and work fewer hours than their [peers](#).

"That being poor when you are in utero doubles your risk for early onset of these diseases is shocking. You shouldn't have arthritis or hypertension when you're 30," said the lead author of the study, Kathleen Ziol-Guest, a postdoctoral associate in the Department of Policy Analysis and Management.

The research has implications for policies that increase the income of [poor families](#) with infants, she added. The work appeared Oct. 8 in the [Proceedings of the National Academy of Sciences](#).

The health of the [adults](#) in the study differed markedly depending on their [family's](#) income between the prenatal year and the second year of life, Ziol-Guest and her colleagues found. Children from low-income families reported diagnoses of immune-related diseases such as arthritis and hypertension when they became adults at twice the rate as their higher-income peers. Moreover, those diseases diminished their work capacity: They had lower annual earnings (\$21,600 versus \$53,400),

fewer annual work hours (1,460 versus 1,877) and smaller hourly earnings (\$13.60 versus \$26.50).

Conversely, raising the average annual earnings of a low-income child's family by \$5,000 over a four-year interval would result in a 5 percent reduction in the risks of adult arthritis and high blood pressure, Ziol-Guest said. "Although \$20,000 constitutes a sizeable income increase, the reductions in risk for both conditions (one-quarter for hypertension and close to one-half for arthritis) are also quite substantial, given the 19 percent and 11 percent rates, respectively, of [hypertension](#) and [arthritis](#) among those adults who were poor in early childhood," she said.

Ziol-Guest wrote the study, "Early childhood poverty, immune-mediated disease processes and adult productivity," with Greg Duncan of the University of California-Irvine, Ariel Kalil of the University of Chicago and W. Thomas Boyce of the University of British Columbia.

The findings support the hypothesis that children have a sensitive period during which social processes in the environment become embedded in their biology and cause changes in adulthood. Previous studies suggest that prolonged stress induces a tendency toward chronic inflammation in the body that results in chronic disease, Ziol-Guest and her colleagues said.

The study points to the importance of policies that increase financial resources available to families with young children, Ziol-Guest said. "Our findings indicate that the incomes of the most economically disadvantaged families should be of greatest concern, particularly during the years when these families have young children."

Such programs as the Earned Income Tax Credit, Temporary Assistance for Needy Families and child tax credits could help boost the income of families during that critical period, Ziol-Guest said. "Targeting these or

similar programs to families with very young children may offer the largest benefit for health and well-being in later life and give us more bang for our buck in an era of rapidly rising health care costs."

The researchers drew their data from the Panel Study of Income Dynamics (PSID), which has followed a nationally representative sample of about 5,000 families and their children since 1968. Ziol-Guest and her colleagues analyzed data on 1,070 people born into the PSID households 1968-75 who reported information on their health and labor productivity ages 30-41.

Provided by Cornell University

Citation: Poor kids twice as likely to suffer from arthritis, hypertension in adulthood (2012, October 18) retrieved 25 April 2024 from <https://medicalxpress.com/news/2012-10-poor-kids-arthritis-hypertension-adulthood.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.