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## Early Weight Gain Might Mean Higher Blood Pressure Later

*But parents shouldn't worry, researchers say*

By Ed Edelson  
HealthDay Reporter

WEDNESDAY, Sept. 3 (HealthDay News) -- Children who gain weight rapidly in the first five months of life and from ages 2 to 5 have higher blood pressure as adults, a new study finds.

But rapid weight gain that early in life shouldn't be a major cause of worry for parents, said Dr. Yoav Ben-Shlomo, a professor of clinical epidemiology at the University of Bristol in England, and lead author of a report in the October issue of *Hypertension*.

"In absolute terms, the relationship is moderate," Ben-Shlomo said. The difference in the study was about 2.5 points in systolic blood pressure, the higher number in a 120/80 blood pressure reading.

Nevertheless, he said, the finding "adds to the scientific literature evidence that conditions not only in the womb but also in early childhood can predispose to various disease, such as diabetes."

The information comes from a study done in Wales more than two decades ago to see whether giving pregnant women and children extra milk would help the children grow better. (It didn't have much effect.) As part of the study, children were weighed 10 days after birth, then at six weeks, three months, six months and nine months, and periodically in the following years.

Looking at their blood pressure at age 25 or so, the researchers found not only the relationship between early weight gain but also weight at birth -- lower-weight newborns tended to have higher adult systolic blood pressure.

The finding is of interest "in public health terms, showing that there might be a change in future patterns of disease," Ben-Shlomo said. "In terms of predicting disease on an individual parental level, I wouldn't be too concerned."

"My two children grew rapidly, and it doesn't bother me," he said.

The results confirm the findings of animal trials, which have shown that rapid early growth of laboratory rats is associated with higher blood pressure later in life, said Barbara T. Alexander, an associate professor of physiology at the University of Mississippi who has done such trials and wrote an accompanying editorial. The meaning of the results in medical terms is uncertain, she said.

"Clinicians need to look at these studies and at some point make suggestions about what to do," Alexander said.

Both animal and human results indicate that "not only the time during gestation but also the first few months of life are very critical in programming health," she said, adding that, "a lot of this research has not yet been translated into actual applications."

"At what point they are going to be translated, I don't know," Alexander said. "But it is something that should be of consideration in future health care."

### More information

Learn more about normal and high blood pressure from the American Heart Association.

**SOURCES:** Yoav Ben-Shlomo, M.D., professor, clinical epidemiology, University of Bristol, England; Barbara T. Alexander, Ph.D., associate professor, physiology, University of Mississippi, Jackson; Sept. 3, 2008, *Hypertension*



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