

Mothers' pre-pregnancy weight tied to kids' IQ, study says

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Photo Courtesy: CDC/
James Gathany

Excess pounds before pregnancy may contribute to lower test scores for child.

(HealthDay)—Children whose mothers went into pregnancy overweight may have slightly lower scores on certain tests of verbal and numbers skills, a new study says.

The findings, reported online Dec. 10 in the journal *Pediatrics*, do not prove that their mothers' extra pounds are the reason for these decreased scores, and experts not involved in the study said it's too soon to suggest mothers-to-be lose weight for the sake of their kids' mental prowess.

But the results do add to studies showing that, for whatever reason, kids born to heavy mothers tend to have a somewhat lower IQ than their peers.

For the study, researchers led by Emre Basatemur, of the Institute of Child Health at University College London, combed data on nearly 20,000 U.K. children involved in an ongoing national study. The children took standard tests of verbal ability, numbers skills and reasoning at the age of 5, and again at age 7.

In general, children scored slightly lower if their mother was [overweight](#) going into pregnancy. The difference was very small, though: For every 10-point increase in mothers' body-mass indexes (BMI)—an extra 60 pounds for an average-height woman—kids' test scores dipped slightly. [BMI](#) is a measurement of [body fat](#) based on height and weight.

That dip in [test scores](#) was roughly equal to a 1.5-point decline in IQ.

Exactly what difference that could make in real life is unclear, said researchers not involved in the work. What's more, there is no way to know whether mothers' extra weight is to blame.

Basatemur acknowledged that many factors, both genetic and environmental, influence children's [cognitive development](#). "The association observed in our study accounts for a small amount of the overall variation seen in children's cognition," he said.

Other experts emphasized that the study found only an association. "[Observational studies](#) like this can never prove cause-and-effect," said Dr. Ryan Van Lieshout, assistant professor of psychiatry and behavioral neurosciences at McMaster University in Hamilton, Ontario.

The researchers did try to account for other factors, such as family income and parents' education. But they lacked some key information—including parents' IQ scores, said Van Lieshout, who has studied the relationship between mothers' weight and kids' development.

"You can't conclude from this that women should try to attain a healthy weight before pregnancy in order to improve their child's cognition," Van Lieshout said.

A child behavior specialist agreed. One question is what mothers' nutrition was like during pregnancy, said Andrea Vazzana, clinical assistant professor of child and adolescent psychiatry at NYU Langone Medical Center in New York City.

Since nutrition during pregnancy affects fetal development, it's possible that differences in diet—rather than weight, per se—have some role in the findings.

But there were also problems in how the study assessed kids' abilities, Vazzana said. Their verbal, reasoning and numbers skills were each gauged with one test, or "scale." And that's not enough to broadly capture children's abilities, she said.

There also was a lot of missing data, she pointed out. For instance, the researchers had full information for only about half of the children at age 7.

Still, Van Lieshout said that nine studies so far have looked at the relationship between mothers' weight and children's mental and behavioral development, and most suggest a link.

The question, though, is why. Van Lieshout said the "most tantalizing" theory is that there could be something about mothers' excess fat that affects fetal brain development. Animal research has suggested that's possible, but no one knows if that's true in humans.

For now, the experts said, there are plenty of reasons for women to go into pregnancy as healthy as possible—which includes being neither

substantially overweight nor underweight.

Basatemur said his study results should be interpreted alongside existing weight recommendations. "The association observed in our study may be a further reason to follow this advice, and reinforce the need ... to reduce the prevalence of overweight and obesity in women of childbearing age," he said.

Obesity can make it more difficult to get pregnant, and it raises the odds of certain health problems for expectant [mothers](#), such as pregnancy-related diabetes and high blood pressure. Obesity also has been linked to higher-than-normal risks of miscarriage, stillbirth and birth defects.

Van Lieshout agreed that "there are absolutely reasons" to strive for a healthy weight before pregnancy. "We just don't know if this is one of them," he said.

More information: Learn more about having a healthy pregnancy from the [U.S. Centers for Disease Control and Prevention](#).

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