

Dad's weight before baby's birth may influence that child's obesity risk

CHILD research shows that the offspring of fathers with obesity are more likely to follow growth trajectories that lead to their developing obesity in early childhood. This risk is found to increase when the child's mother is also with overweight or obesity.

It is one of the first and largest studies to investigate how fathers' body-mass-index (BMI) and weight influence their children's BMI growth patterns through early childhood (up to 5 years of age).

PRECONCEPTION HEALTH IMPORTANT

"These findings underscore how parents' preconception health can shape the early development of their children," comments first author **Antonio Rossi**, a graduate student in Nutritional Sciences at the University of Toronto.

"Because having obesity in early childhood often continues into adulthood and can have long-term health consequences, our results suggest that we need to offer broader health counseling to people planning to become parents."

Published in the *International Journal of Obesity*, the study analyzed data from 2,238 participants in CHILD. The researchers analyzed height and weight measurements taken from parents before their children's birth, as well as the same measurements taken from their kids at birth, 3 months, 1 year, 3 years and 5 years of age. They used weight categorization and BMI scores based on World Health Organization (WHO) standards.

The researchers also considered various other factors but did not find any of them to override the influence of parental weight when it came to the child's growth development.

DAD'S WEIGHT MATTERS

"We already knew that a mom's weight status tended to influence her baby's growth and risk of obesity," observes lead author Dr. Kozeta Miliku, CHILD's Clinical Science Officer and Assistant Professor in the Department of Nutritional Sciences at the University of Toronto.

"Not only did we find that dad's weight also matters, we found that the combination of both parents being with obesity has an even bigger impact. When both the mom and dad are with obesity before the child's birth, their child is more than four times as likely to experience rapid BMI growth gain compared to children born of parents without obesity or overweight."

The study's results also suggest that the influence of the father's weight may become more pronounced as the child gets older, while the influence of the mother's may remain relatively consistent from birth to childhood.

MORE INCLUSIVE APPROACH

"This study promotes a more inclusive approach to family health, challenging traditional views that often place the onus of intergenerational health solely on mothers," Dr. Miliku comments.

"Our research encourages a societal shift towards recognizing the collective responsibility of both parents in influencing the health of future generations."

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Higher risk
of obesity for children whose dads are with obesity

4x
the risk of rapid body-mass-index (BMI) growth for children whose mom & dad are both with obesity

Parents' preconception health can shape the early development of their children

The influence of the father's weight may become more pronounced as the child gets older

Having obesity in early childhood often continues into adulthood and can have long-term health consequences

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Rossi A, et al. J Clin Child Psychol. 2023 Aug.



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