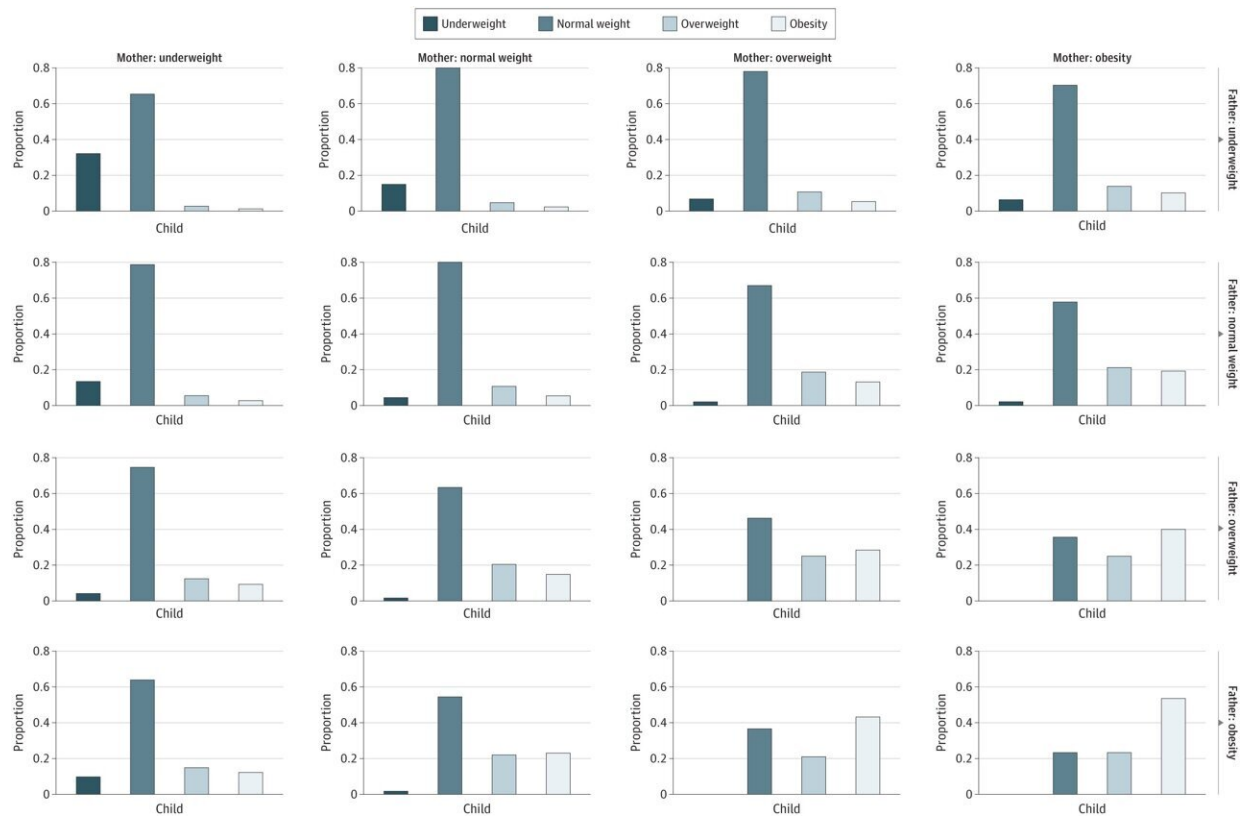


Offspring of people who were obese as teens are likely to be obese as well, study finds

July 1 2024, by Bob Yirka



Mean Body Mass Index (BMI) Distribution of Offspring According to Maternal and Paternal BMI Status. Analyses are based on 447,883 complete parent-offspring (of both sexes) trios taken at military prerecruitment examinations (at approximately 17 years of age). Credit: *JAMA Network Open* (2024). DOI: 10.1001/jamanetworkopen.2024.19029

A team of pediatricians, epidemiologists and preventive medicine specialists affiliated with several institutions in Israel and Denmark has found that children born to parents who were obese when they were 17 are more likely to be obese at the same age.

In their [study](#), published in the journal *JAMA Network Open*, the group analyzed data collected during mandatory medical screening prior to compulsory military service in Israel.

Compulsory military service in Israel over many years has provided unique [medical data](#) on millions of people living in that country. Because it involves fit-for-duty medical exams prior to service and because it has been conducted for multiple [generations](#), biological, hereditary and medical data are available for multiple generations, allowing for comparisons of data from related people when they were the same age.

For this new study, the researchers compared BMI for 447,883 [offspring](#) at age 17 with both their parents at age 17. Participant data was collected for the years 1986 to 2018.

The research team found that 17-year-olds born to parents who were obese at 17 had a 77% chance of being obese when they were 17—conversely, [children](#) born to parents who had a healthy weight at 17 had just a 15% chance of being obese at age 17. And if both parents had been severely underweight at 17, the odds of their offspring being obese at 17 was just 3.3%.

The researchers also found that daughters were more likely to be obese under such circumstances in general than sons, and also in cases where only the mother had been obese as a teen. Offspring of either gender were found to be more likely to be obese at 17 if both [parents](#) had been obese at the same age.

According to the researchers, the numbers support theories of a genetic element in development of obesity in teenagers.

More information: Gabriel Chodick et al, Heritability of Body Mass Index Among Familial Generations, *JAMA Network Open* (2024). [DOI: 10.1001/jamanetworkopen.2024.19029](https://doi.org/10.1001/jamanetworkopen.2024.19029)

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