Assisted reproductive technology not tied to higher BMI in childhood, finds study

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Being born after assisted reproductive technology (ART) is not associated with higher body mass index (BMI) at age 5 to 8 years, according to a study published online Dec. 19 in *PLOS Medicine*.

Kristina Laugesen, M.D., Ph.D., from Aarhus University in Denmark, and colleagues examined associations between different fertility treatments and BMI in children at age 5 to 8 years. The analysis included 327,301 Danish children born between 2007 and 2012 (13,675 born after ART and 7,728 born after ovulation induction with or without intrauterine insemination [OI/IUI]).

The researchers found that the crude prevalence of obesity was 1.9% in children born after ART, 2.0% in those born after OI/IUI, and 2.7% in those born after no fertility treatment. Children born after ART and OI/IUI had the same prevalence of being overweight (11%; prevalence odds ratio [POR], 1.00 [95% confidence interval (CI), 0.91 to 1.11]; P = 0.95) or obese (1.9%; POR, 1.01 [95% CI, 0.79 to 1.29]; P = 0.94) in adjusted analyses.

A similar pattern was seen when comparing intracytoplasmic sperm injection with conventional in vitro fertilization (overweight: POR, 0.95 [95% CI, 0.83 to 1.07]; P = 0.39; obesity: POR, 1.16 [95% CI, 0.84 to 1.61]; P = 0.36). After frozen-thawed (2.7%) embryo transfer, obesity was more prevalent than after fresh embryo transfer (1.8%; POR, 1.54 [95% CI, 1.09 to 2.17]; P = 0.01).

"Our overall null results provide reassuring results for couples with infertility seeking help," the authors write.

More information: Kristina Laugesen et al, Overweight or obesity in children born after assisted reproductive technologies in Denmark: A population-based cohort study, *PLOS Medicine* (2023). DOI: 10.1371/journal.pmed.1004324