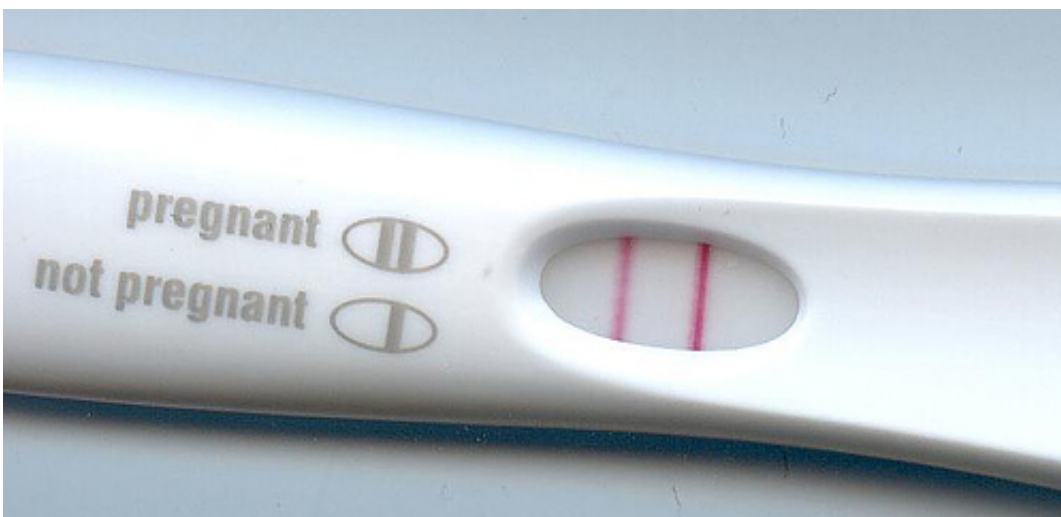


# Is insufficient weight gain during pregnancy associated with schizophrenia spectrum disorders in children

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Pregnancy test. Credit: public domain

Insufficient weight gain during pregnancy was associated with increased risk for nonaffective psychosis - or schizophrenia spectrum disorders - in children later in life in a study that used data on a large group of individuals born in Sweden during the 1980s, according to an article published online by *JAMA Psychiatry*.

Prenatal exposure to famine has previously been associated with increased risk for nonaffective psychosis in [children](#).

Renee M. Gardner, Ph.D., of the Karolinska Institutet, Stockholm, and coauthors used data from Swedish health and population registers to follow-up 526,042 people born from 1982 through 1989 from the age of 13 until the end of 2011. Gestational weight was calculated as the difference in maternal weight between the first antenatal visit and delivery.

The group of 526,042 individuals (about 51 percent of whom were male, average age 26) included 2,910 people with nonaffective psychoses at the end of the follow-up period, of whom 704 had narrowly defined schizophrenia.

Among the people with nonaffective psychosis, 184 (6.32 percent) had mothers with extremely inadequate gestational weight gain (less than about 17.6 pounds or 8 kilograms for mothers with normal baseline BMI), compared with 23,627 (4.5 percent) unaffected individuals, according to the results. Extremely inadequate gestational weight gain was associated with [increased risk](#) for nonaffective psychoses in children in analysis adjusted for other potential confounding factors and in sibling comparison models.

The authors suggest malnutrition as a potential mediating factor, although other mechanisms cannot be ruled out based on observational studies. They also note severely inadequate [gestational weight](#) gain also may indicate an existing maternal medical condition and more research is needed to understand the association between conditions that lead to insufficient [maternal weight gain](#) and the risk for nonaffective psychosis in children.

Study limitations include the ages of the children at the end of follow-up, which varied from 22 to 29, because nonaffective psychoses typically manifest from the third decade of life onward.

"Our results corroborate evidence from previous research and indicate that inadequate [weight gain](#) during pregnancy contributes to the risk of nonaffective psychosis in offspring. Weight gain outside Institute of Medicine guidelines may have deleterious effects on offspring neurodevelopment," the article concludes.

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