

# Mothers' weight before and during pregnancy affects baby's weight

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A new study published in the journal *Acta Obstetricia et Gynecologica Scandinavica* (AOGS) reveals that both pre-pregnant weight (body mass index, BMI) and weight gain in pregnancy are important predictors of babies' birthweight. This is important since high birthweight may also predict adult overweight.

Researchers led by Unni Mette Stamnes Koepp of the Department of Pediatrics at Soerlandet Hospital and the University of Oslo, Norway, performed a population-based pregnancy cohort study, assessing 58,383 pregnant [women](#) between 2000 and 2007 from the Mother and Child Study conducted by the Norwegian Institute of Public Health. They estimated the association between maternal pre-pregnant BMI and weight change in pregnancy and [offspring](#) birthweight.

Results of the study showed that birthweight of the newborn child increased with increasing maternal pre-pregnant BMI, and that offspring birthweight also increased with increasing weight gain of the mother during pregnancy.

Every increase in one kg of pre-pregnancy BMI increased birthweight with 22.4 g. A subsequent increase in weight gain during pregnancy of 10 kg increased birthweight with 224 g.

Additionally, women with the highest level of education had the highest offspring birthweight. Offspring birthweight in women with 17 years or more of education was 79.2 g higher than those with less than or equal to

9 years of education.

"Encouraging women to attain a healthy weight before conception and keep a moderate [weight gain](#) during [pregnancy](#) is important to avoid high or excessive birthweight in offspring," Koepf notes. This is important knowledge for the battle against the world's obesity epidemic.

**More information:** Koepf et al. Maternal pre-pregnant body mass index, maternal weight change and offspring birthweight. Acta Obstetrica et Gynecologica Scandinavica; 2011. [DOI: 10.1111/j.1600-0412.2011.01321](#)

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