

Smoking during pregnancy may affect grandchildren's growth

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A UK study published in the *American Journal of Human Biology* has found that smoking during pregnancy has discernible effects on the growth of a woman's future grandkids.

With non-smoking mothers, if a paternal grandmother smoked during pregnancy, her granddaughters tended to be taller and both her granddaughters and grandsons tended to have greater bone mass and lean (muscle) mass. If a maternal grandmother smoked during pregnancy, her grandsons became heavier than expected during adolescence, with increased lean mass, grip strength and cardiovascular fitness. When both the maternal grandmother and the mother had smoked, girls had reduced height and weight compared with girls whose mothers, but not grandmothers, smoked.

"These likely transgenerational effects from the grandmothers' smoking in pregnancy need to be taken into account in future studies of the effects of [maternal smoking](#) on child growth and development. If replicated, such studies could be a useful model for the molecular analysis of human transgenerational responses," said senior author Prof. Marcus Pembrey.

More information: Golding, J., Northstone, K., Gregory, S., Miller, L., Pembrey, M. (2014), The anthropometry of children and adolescents may be influenced by the prenatal smoking habits of their grandmothers: a longitudinal cohort study. *Am. J. Hum. Biol.* [DOI: 10.1002/ajhb.22594](https://doi.org/10.1002/ajhb.22594)

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