

Antidepressant use during pregnancy may lengthen umbilical cord

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Pregnancy test. Credit: public domain

Umbilical cords of children whose mothers used selective serotonin reuptake inhibitors during pregnancy may be longer than umbilical cords of other newborn children, shows a new study from the University of Eastern Finland and Kuopio University Hospital. Selective serotonin reuptake inhibitors, SSRIs, are commonly prescribed antidepressants, and this is the first time their association with umbilical cord length was observed. The findings were published in *PLOS ONE*.

A long umbilical cord can weaken foetal circulation and expose the foetus to a lack of oxygen during the [pregnancy](#) or birth, among other

things. According to the study researchers, this newly observed association of prenatal SSRI use with umbilical cord length may indicate that SSRI drugs increase foetal activity and movement in the uterus.

The length of the umbilical cord is affected by how much the growing foetus moves in the uterus. "When the foetus moves, the umbilical cord stretches and eventually gets longer," says PhD student Julia Kivistö, the first author of the study.

According to different estimates, 7-19 per cent of expectant [mothers](#) suffer from depression during pregnancy, and approximately 7-9 per cent use antidepressants. SSRI drugs are the most commonly prescribed antidepressants also during pregnancy.

The study analysed the effects of SSRI use during pregnancy on the course of pregnancy, foetal development and birth outcomes. The study involved more than 24,000 women who gave birth at Kuopio University Hospital between 2002 and 2012.

Antidepressants were used during pregnancy by 1.7% of the study participants, i.e. by 416 women, and the majority used SSRI drugs.

The most commonly used SSRI [drug](#) was citalopram, which was used by 217 expectant mothers.

Among the SSRI drugs analysed in the study, children of mothers who used citalopram during pregnancy had longer umbilical cords than others. The proportion of mothers who used other SSRI drugs than citalopram in the study data was relatively low, meaning that the study's findings regarding other SSRIs cannot be considered reliable. Newborn children of mothers who used SSRI drugs were also given low activity scores and they were twice as likely to end up in intensive care than other newborns; however, these changes can likely be explained by the

mother's depression at least to some extent. Similar observations of the effects of the expectant mother's mental status on the health of the newborn baby have also been made in other studies. However, the association of SSRI drugs with [umbilical cord](#) length hasn't been observed until now.

"Depression, both when left untreated and when treated with drugs, causes some changes to the course of pregnancy and birth. This is why it is extremely important to carefully consider the individual situation of each patient when choosing the treatment," Kivistö says.

More information: Julia Kivistö et al. Maternal Use of Selective Serotonin Reuptake Inhibitors and Lengthening of the Umbilical Cord: Indirect Evidence of Increased Foetal Activity—A Retrospective Cohort Study, *PLOS ONE* (2016). [DOI: 10.1371/journal.pone.0154628](https://doi.org/10.1371/journal.pone.0154628)

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