

Extra vitamin D during pregnancy may increase chance of a 'natural birth'

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Women who take extra vitamin D during their pregnancy are more likely to have a 'natural' delivery, according to University of Southampton research.

The study, published in the *Journal of Public Health*, analyzed results from the MAVIDOS trial, a multicentre, double-blind, randomized, placebo-controlled trial of [vitamin D](#) supplementation in pregnancy. In this trial, 965 women were randomly allocated to either take an extra 1,000 International Units (IU) per day of vitamin D during their pregnancy or a placebo. The researchers followed up the women during their pregnancy and delivery.

Analysis showed that 65.6 percent of women who took extra Vitamin D had a spontaneous vaginal delivery, or 'natural' delivery, compared to 57.9 percent in the placebo group. Fewer women from the vitamin D group had an assisted delivery compared to the [placebo group](#) (13.2 percent vs. 19.4 percent). However, the number of women in each group needing a cesarean operation to deliver their baby was similar (vitamin D 21.3 percent, placebo 22.7 percent).

Dr. Rebecca Moon, a Clinical Lecturer at the MRC Lifecourse Epidemiology Centre (MRC LEC), University of Southampton and NIHR Southampton Biomedical Research Centre, led the analysis.

She said, "Most women want to have a 'natural delivery' of their baby. Our work suggests that taking extra vitamin D during their pregnancy might help them to achieve this.

"The women taking the extra vitamin D also had less blood loss after delivery, highlighting why this is so important. Further evidence is now needed to more thoroughly inform [public health policy](#) and [clinical practice](#)."

MAVIDOS involved researchers from the University of Southampton and University Hospital Southampton NHS Foundation Trust (UHSFT) and is a large project looking at the benefits of vitamin D supplementation in pregnancy.

Professor Nicholas Harvey, MRC LEC Deputy Director and lead of MAVIDOS, said, "Vitamin D deficiency is very common in the UK. We have also shown that extra vitamin D in pregnancy can improve the mother's vitamin D level and has benefits to their child's skeleton. Importantly, National Institute for Health and Care Excellence guidance recommends that all pregnant [women](#) take 400 IU vitamin D per day."

Professor Cyrus Cooper, MRC LEC Director, Professor of Rheumatology, and Chief Investigator of the MAVIDOS Trial, added, "These findings add further to the knowledge generated through the MAVIDOS trial. This is informing the role of vitamin D in pregnancy for offspring bone development and underlying genetic and nongenetic mechanisms.

"This successful program has clearly demonstrated the immense added value through a nationally, [collaborative approach](#) to discovery science."

Many of the research team are also based at the NIHR Southampton Biomedical Research Centre (BRC). The NIHR Southampton BRC is part of the National Institute for Health and Care Research (NIHR) and hosted by UHSFT in partnership with the University of Southampton.

More information: Rebecca J Moon et al, Does antenatal cholecalciferol supplementation affect the mode or timing of delivery? Post hoc analyses of the MAVIDOS randomized controlled trial, *Journal of Public Health* (2022). [DOI: 10.1093/pubmed/fdac160](https://doi.org/10.1093/pubmed/fdac160)

Provided by University of Southampton

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