

Probiotics may reduce risk of gestational diabetes

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Credit: University of Otago

Research led by the University of Otago, Wellington has found that a 'home-grown' naturally occurring probiotic reduces the risk of developing diabetes during pregnancy (gestational diabetes) and lowers fasting blood sugar.

The joint study by University of Otago, Wellington, and University of Auckland researchers, funded by the Health Research Council of New Zealand, was published this week in the *British Journal of Nutrition*.

The probiotic (*Lactobacillus rhamnosus* HN001), produced by Fonterra, which is used to make fermented milk products such as yoghurt, was given in capsule form to 194 women from early pregnancy, while 200 women received a placebo. Gestational [diabetes](#) was assessed at 24-30 weeks gestation.

"Using the current New Zealand definition for [gestational diabetes](#), 6.5 per cent of the women had diabetes in the [placebo group](#), versus 2.1 per cent in the probiotic group. This is a 68 per cent reduction," says study leader Professor Julian Crane from the University of Otago, Wellington.

"We found that the protective effects were stronger among older women and were stronger among women who had previously had gestational diabetes," Professor Crane says.

Fasting blood glucose was also significantly lower among [women](#) taking the probiotic compared to placebo.

"This is an exciting result suggesting that this probiotic may be interacting with the normal gut bacteria in some way to reduce glucose levels in pregnancy," he says.

The researchers have previously shown that this same probiotic has effects on the immune system and reduces eczema by 50 per cent in infancy.

Professor Crane says that the next steps will be to investigate whether this probiotic can reduce the now increasingly common risk in the population of developing diabetes.

"We have recently received funding from a partnership fund from the Health Research Council of New Zealand, Ministry of Health and the Healthier Lives National Science Challenge to explore the use of this probiotic combined with a prebiotic to see if we can prevent the progression of pre-diabetes amongst adults at risk," Professor Crane says.

More information: Kristin L. Wickens et al. Early pregnancy probiotic supplementation with *Lactobacillus rhamnosus* HN001 may

reduce the prevalence of gestational diabetes mellitus: a randomised controlled trial, *British Journal of Nutrition* (2017). [DOI: 10.1017/S0007114517000289](https://doi.org/10.1017/S0007114517000289)

Provided by University of Otago

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