

Could Vitamin B12 hold key to reducing diabetes in pregnant women?

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Warwick Medical School is about to begin a new phase of research into the effects of Vitamin B12 on pregnant women following an award of £800,000 from the Medical Research Council (MRC).

Warwick, in partnership with the University of Southampton and King Edward Memorial Hospital in Pune, India, hopes to recruit 4,500 women in the early stages of pregnancy so they can study whether micro nutrients such as [Vitamin](#) B12 reduce the risk of developing gestational diabetes (GDM).

Numbers of mothers affected by GDM are rapidly rising, and with it, all manner of additional health complications for both the mother and the baby. In seven out of ten cases, mothers who have GDM go on to develop full blown diabetes. And babies born to women with GDM are at a higher risk of developing obesity and diabetes as an adult.

Dr Ponnusamy Saravanan, Associate Clinical Professor of Diabetes, Endocrine & Metabolism at Warwick Medical School and George Eliot Hospital, explained how this new research would build on earlier studies which indicate that the risk of diabetes is determined in the womb:

“This research will study pregnant women and follow the growth and development of their babies. The current research is funded until childbirth and we hope to closely follow up both mothers and baby beyond.

“Our earlier research in India shows that mothers with low Vitamin B12 levels gave birth to babies with features suggestive of them developing diabetes and cardiovascular diseases soon after birth and at 6 years.”

He believes that the micro-nutrients (vitamins) in a woman’s diet fundamentally influence how the DNA functions, and this gene-diet interaction determines, at least in part, whether you are going to be more prone to being overweight as an adult. So this very early ‘in-utero’ stage is seen as critical in mapping out your adult health.

The first stage of the research begins next month with recruitment of women in the Coventry and Warwickshire areas who are in the extremely early stages of pregnancy. This group will have equal number of mothers from South Asian and Caucasian background. The results will also provide an insight into why South Asian women have a far higher prevalence for developing GDM.

Ultimately, Dr Saravanan would like to see a point when Vitamin B12 becomes a nationally recommended supplement for [pregnant women](#) in the same way that Folic Acid is: “Vitamin B12 is relatively cheap to produce and distribute, and if the research provides evidence to back up the suggested long-term health benefits, [Vitamin B12](#) could be key in preventative health care of the future.”

Dr Saravanan concluded: “We are, without doubt, facing an obesity epidemic in this country. With each generation we are becoming more overweight and developing more cases of associated conditions such as [diabetes](#) and heart disease.

“We need to establish more ‘primordial prevention’ which means taking preventive action before these conditions develop, to improve our nation’s future health and reduce the cost of treatment for the NHS, and our research is contributing to that goal.”

Provided by University of Warwick

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