

New research links mothers' lack of folic acid with cleft lip and palate

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(Medical Xpress) -- New research by medics at Trinity College Dublin suggests that folic acid plays a vital role in preventing a major birth defect. This is in addition to the established protection against neural birth defect such as spina bifida. The findings published in the July 2012 edition of the leading primary care journal, the *British Journal of General Practice* show that the risk of having Cleft Lip and Palate (CLP) was more than four times higher if mothers had not taken folic acid in the first trimester.

These findings by researchers at the Department of Public Health and Primary Care in the School of Medicine, Trinity College Dublin will be of great benefit to women and healthcare practitioners involved in prenatal counselling, especially [General Practitioners](#), who are advising women likely to conceive.

Trinity postgraduate research student and [pharmacist](#) Ms Dervla Kelly is the first author on the paper and Dr Udo Reulbach, an [epidemiologist](#) and Clinical Research Fellow, HRB Centre for Primary Care Research and Department of Public Health and Primary Care, Trinity College Dublin, is the joint senior author.

Commenting on the significance of the research, Trinity's Professor of General Practice Tom O'Dowd, a senior author on the paper stated: "This study supports the hypothesis of a further significant role of a daily folic acid supplement of 0.4mg taken 4 weeks before conception and in the first 12 weeks of pregnancy in the prevention of [Cleft Lip and](#)

Palate".

A cleft lip is a separation in the upper lip while a cleft palate is an opening in the roof of the mouth. Clefts result from incomplete development of the lip and/or palate in the early weeks of pregnancy. Even when repaired, complications from CLP can lead to long-lasting complications such as persistent ear infections, speech impairments, facial deformities and dental problems.

Using a sample of 11,134 nine-month-olds from the Growing Up in Ireland study, a national study led by TCD and the Economic and Social Research Institute (ESRI), researchers found that over a third of mothers did not take a folic acid supplement prior to becoming pregnant while a minority did not during the first trimester. The main reason for women not taking a supplement was their being unaware that they were pregnant.

This study also highlights the socioeconomic factors associated with not taking folic acid during the first trimester. The benefits of this safe, simple and cheap supplement need to be promoted to all women who have any chance of becoming pregnant, according to the authors.

Provided by Trinity College Dublin

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