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## **Supplements and pre-eclampsia in pregnancy**

*Promising results for vitamin study*

Research recently completed at St. Thomas Hospital, London, indicates that pregnant women with a history of, or a susceptibility to, pre-eclampsia may – by the supplementation of their diet with vitamins C and E – be 76% less likely to develop the condition.

Pre-eclampsia is one of the commonest causes for admission to hospital during pregnancy. It can be a very dangerous condition for both mother and baby and the only effective means of managing the condition has been by early delivery of the baby. This has meant that, in the UK alone, around 1,000 babies and seven mothers die every year. Many women who suffer pre-eclampsia go on to develop liver problems.

Pre-eclampsia is most likely to effect women under 25 or over 35 and is more common in women with diabetes, hypertension or kidney disease. The risk is highest in the first pregnancy.

The trial began in 1997 and 283 women took part. These women had either had pre-eclampsia in a previous pregnancy or they were invited to join the trial as a result of a Doppler screening test, which indicated an abnormal blood flow to the placenta – believed to be one of the indicators, along with high blood pressure, of pre-eclampsia.

This group of 283 was randomised and one group were given placebos during weeks 16 to 22, whilst the others were given daily doses of vitamin C (1000mg) and natural vitamin E (400iu). 160 women completed the study.

Of the women that completed the study, it was seen that whilst 26% of those on placebo developed pre-eclampsia, only 8% on vitamins C and E did. The reason for this remarkable difference is thought to be that the mother-to-be is running low in certain vitamins; the placenta and the white-blood cells produce free radicals, which are thought to contribute to the mothers high blood pressure. It is thought that, by mopping up the free radicals (vitamins C and E are powerful antioxidants), the mothers blood pressure would be more normal and so reduce the risk of pre-eclampsia.

The study was funded by the UK national pregnancy research charity Tommy's Campaign who have welcomed the findings. Vivienne Creeley, chief executive, said "The next step is the establishment of a multi-centre clinical trial. This trial will establish the value of vitamin C and E supplements for ALL pregnant women."

Professor Lucilla Poston, leader of the study group at St. Thomas, said "We are very excited by the results of this trial and its implications. We hope that this study may lead to an effective treatment which will prevent the onset of this devastating illness and its consequences."