

## Salt is Vially Important for a Healthy Pregnancy

(Excerpted from <http://home.mindspring.com/~djsnjones/id70.html>)

At the Salt & Pregnancy Forum of May 2006 (1), organized by EuSalt, Prof. Dr. Markus G. Mohaupt already underlined that pregnancy is no time to reduce salt intake and that additional salt may benefit women suffering from pre-eclampsia.

Recently, Prof. Dr. Mohaupt published a case study (2) showing that an additional salt intake of 20g stopped hypertension during pregnancy... In this case, a 33-year-old woman with normal renin activity was diagnosed with essential arterial hypertension 15 years ago. During the 6 month period before conception, her blood pressure was well-controllable by dual antihypertensive treatment. Throughout pregnancy, blood pressure recordings were collected daily, and at five weeks of gestation in her first pregnancy, she stopped all antihypertensive drugs. As a result, the average blood pressure increased, whereas the expected increase in aldosterone synthase activity in pregnancy did not show. Given this hypoaldosteronism, sodium supplementation aiming at 20g total NaCl intake per day was initiated, and pursued throughout pregnancy, and resulted in a decrease of the blood pressure during pregnancy.

After delivery, maternal blood pressure rose again, NaCl supplementation was terminated and antihypertensive treatment was reinstalled. The observation that blood pressure was responsive to NaCl supplementation is in line with the hypothesis that intravascular volume decrease causes increased blood pressure in pregnancy. The absence of the expected increase in aldosterone synthesis was associated with a mutation of the aldosterone synthase gene, similar to earlier findings in pre-eclamptic women. This persistent hypoaldosteronism together with earlier findings on NaCl supplementation led the researchers to supplement salt in this woman. This salt supplementation was associated with a reduced blood pressure throughout pregnancy. In addition to this case, Mrs Sabine Kuse, founder of a support group (1984) for women in acute state and after pregnancy with pre-eclampsia or HELLP-syndrome, and her team have been advising more than 20.000 women during their high-risk pregnancies over the past 22 years.

They found that in most cases, additional salt helped within hours. More importantly, during all those years, they haven't seen one case where salt supplementation has caused negative effects. The worst effect was no effect. (1) Support for this critical role of NaCl intake during pregnancy, was already provided by Robinson in 1958, who found a reduced incidence of pre-eclampsia in pregnant women on a high salt diet (3).

This study introduced substantial data for bias in other studies, of which all data suggest that salt restriction during pregnancy does not seem promising for the prevention of pre-eclampsia. Or, as the study of Mohaupt et.al concludes: pregnant women with even subtle signs of volume deficiency might benefit from salt supplementation in pregnancy.

### Footnotes:

1. EUSALT Newsletter. Salt, blood pressure and pregnancy: a critical relationship? August 2006.
2. Markus G. MOHAUPT et.al . Blood pressure reduction in pregnancy by sodium chloride. Oxford University Press, 2006.
3. M. ROBINSON. Salt in Pregnancy. Lancet, 1958, 1: 178 – 181.

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