The SNAP trial: a randomised placebo-controlled trial of nicotine replacement therapy in pregnancy – clinical effectiveness and safety until 2 years after delivery, with economic evaluation

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Plain English summary

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Smoking in pregnancy harms developing babies, but stopping smoking before childbirth improves infants’ health. Nicotine replacement therapy (NRT) helps non-pregnant smokers quit but, in pregnancy, women’s bodies process nicotine faster. Therefore, we cannot assume that NRT will help pregnant smokers and previous research studies have not shown that it does. We tested whether or not NRT patches help pregnant women stop smoking and looked at effects on their newborn babies and when they reached 2 years of age.

A total of 1050 smokers joined the study and were randomly allocated to a 2-month supply of either NRT or identical dummy patches. Women’s smoking was monitored 1 month after joining the study, at childbirth and at 6, 12 and 24 months afterwards. Babies’ health was monitored at birth and their development and breathing problems were assessed when they were 2 years old.

Effects on smoking were modest. Those using NRT were twice as likely to stop smoking for 4 weeks immediately after joining the study; however, at childbirth and until 24 months, although there were slightly fewer smokers in the NRT group, this small difference would not usually be considered important. Babies’ health at birth was very similar no matter which patches mothers had been allocated. However, 2-year-old children born to women in the NRT group were more likely to have no development problems and there was no difference in the frequency of breathing problems between groups.

We need further research to find out if higher doses of NRT could help pregnant women to stop smoking.
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