The London Exercise And Pregnant smokers (LEAP) trial: a randomised controlled trial of physical activity for smoking cessation in pregnancy with an economic evaluation

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Plain English summary

Smoking during pregnancy damages the growing baby. Most medicines to help with stopping smoking are unlicensed in pregnancy or have been found to be unhelpful. Physical activity (PA) reduces urges to smoke, which are the main cause of smoking relapse. Therefore, we tested whether or not offering a PA programme helps pregnant women to quit smoking.

Women recorded as smokers at their first pregnancy-related visit to the health service were contacted about the study. The 785 women who participated had an equal chance of being offered standard help for stopping smoking given by a health professional or help plus a PA programme that encouraged women to incorporate more activity into their days and provided supervised exercise sessions. We compared women’s success at quitting at the end of their pregnancy between the two groups. During their pregnancy women reported how much PA they were doing. Women in the PA group reported doing more PA, although among the 10% of women wearing devices that measured PA objectively there was no detectable difference in PA levels between the two groups. The quit rates were low and were similar for the two groups (7.7% in the PA group, 6.6% in the control group). The PA programme was shown to be reasonably cost-effective, mainly because health-care usage was lower in the PA group. In conclusion, there was no evidence that the PA programme helped women to stop smoking. This may be because the women did not raise their PA levels sufficiently.
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