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Giving up smoking early in pregnancy reverses risk of complications

Research initiated at The University of Auckland has shown that women who quit smoking within the first fifteen weeks of pregnancy can reverse their elevated risk of premature birth and having small babies, without suffering increased stress.

“For the first time we have shown that pregnant women who stop smoking during this window of opportunity can prevent serious late pregnancy complications,” says lead researcher Associate Professor Lesley McCowan.

“The findings are significant because they show that maternity care providers should see women early in pregnancy and emphasise the importance of giving up smoking before fifteen weeks, with the goal of becoming smoke free as early as possible in pregnancy,” she says.

According to the research women who do not quit smoking by fifteen weeks of pregnancy are three times more likely than non-smokers to give birth prematurely, and twice as likely to have low birth-weight babies. In contrast, women who quit smoking by fifteen weeks bring their risk of these complications back down to the same level as non-smokers.

Another important finding is that women who stop smoking by fifteen weeks of pregnancy are not more stressed than those who continued to smoke. “This challenges the widely-held assumption that giving up smoking leads to increased stress and it’s an important message for women who are daunted by the idea of trying to quit,” says Dr McCowan.

While it has been known for some time that smoking during pregnancy increases rates of premature birth and low birth weight – as well as miscarriage, ectopic pregnancy, stillbirth and neonatal death – few studies have investigated whether quitting within a critical time period can prevent these complications.

The current results come from more than 2,500 women participating in the landmark SCOPE (Screening of Pregnancy Endpoints) study in New Zealand and Australia who were surveyed at fifteen weeks of gestation.

The findings have been published in the British Medical Journal and were presented yesterday at the Auckland meeting of The Royal Australian and New Zealand College of Obstetricians and Gynaecologists. They are among the first results from the SCOPE study, and the most important to date in terms of their public health implications.

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Notes

SCOPE study

The SCOPE study, underway at six universities around the world, was initiated at The University of Auckland's School of Population Health by Professor Robyn North and Associate Professor Lesley McCowan. As well as generating data on issues such as smoking, the study's primary aim is to develop screening tests to predict preeclampsia, small for gestational age infants, and spontaneous preterm birth.

The research is funded by a variety of agencies, including in New Zealand the Foundation for Research Science and Technology, the Health Research Council, and the Auckland District Health Board Charitable Trust's Evelyn Bond Fund.

Publication

The current results have been published in the British Medical Journal and are available free online at www.bmj.com/cgi/content/full/338/mar26_2/b1081

Risks of smoking during pregnancy

Smoking is the single most modifiable risk factor for pregnancy complications in the western world. Preterm birth is the second most common cause of infant death in the first month of life, and is associated with a range of serious long-term conditions. Children born at below ideal birth weight may experience a variety of problems throughout their lives, including being at increased risk of cerebral palsy and developmental delay.