Medical Xpress

Passive smoking increases risk to unborn babies, study says

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Pregnant non-smokers who breathe in the second-hand smoke of other people are at an increased risk of delivering stillborn babies or babies with defects, a study led by researchers at The University of Nottingham has found.

The study, published in the April edition of the journal Pediatrics, found passive smoking increased the risk of still birth by almost one-quarter (23 per cent) and was linked to a 13 per cent increased risk of congenital birth defects.

The findings underline the importance of discouraging expectant fathers from smoking around their pregnant partners and warning women of the potential dangers of second-hand smoke both pre-conception and during pregnancy.

Dr Jo Leonardi-Bee, of the UK Centre for Tobacco Control Studies at the University, said: "Mothers' smoking during pregnancy is well-recognised as carrying a range of serious health risks for the unborn baby including fetal mortality, low birth weight, premature birth and a range of serious birth defects such as cleft palate, club foot and heart problems.

"Since passive smoking involves exposure to the same range of tobacco toxins experienced by active smokers, albeit at lower levels, it is likely that coming into contact with second-hand smoke also increases the risk of some of all of these complications."

The study is the first of its kind to draw together the results of research from around the world into the effects of second-hand smoking on pregnancy and to estimate the potential increased risks.

The findings were drawn from a systematic review of 19 studies carried out in North America, South America, Asia and Europe and centred on pregnant women who did not smoke themselves but were exposed to second-hand smoke in the home by their partners or in the workplace by colleagues.

The research looked at the potential effects of passive smoking on miscarriage, newborn death and congenital birth defects.

The study did not find an increased risk of miscarriage or newborn death from second-hand smoke and was not associated with any one congenital defect — the overall increase was only seen after

the results from all the studies were pooled.

The researchers say fathers who smoke should be more aware of the danger they pose to their unborn child and that since it currently remains unclear when the effects of the second-hand smoke begin it is important to protect women from passive smoking both before and during pregnancy.

Dr Leonardi-Bee added: "What we still don't know is whether it is the effect of sidestream smoke that the woman inhales that increases these particular risks or whether it is the direct effect of mainstream smoke that the father inhales during smoking that affects sperm development, or possibly both. More research is needed into this issue although we already know that smoking does have an impact on sperm development, so it is very important that men quit smoking before trying for a baby.

"We also need to continue to find other good public health interventions that can reduce the exposure of these women to passive smoke. One possibility could be for the partner to use smoking cessation treatments such as nicotine replacement therapy (NRT) patches as temporary abstinence interventions in the home and car when they are in the company of the woman.

"The risks are related to the amount of cigarettes that are smoked — the data suggests that being exposed to around 10+ cigarettes a day is enough for the risks to be increased so it is therefore very important for men to cut down. Ultimately though, in the interests of their partner and their unborn child the best option of course would be to give up completely."

Provided by University of Nottingham

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