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New study exposes link between pesticides and childhood brain tumours

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A new study from the Telethon Institute for Child Health Research has revealed a potential link between professional pesticide treatments in the home and a higher risk of children developing brain tumours.

Published this week in the international journal *Cancer Causes & Control*, the study found that exposure by parents to professional pesticide treatments prior to conception could increase the chances of a child developing a brain tumour.

The research, led by Professor Elizabeth Milne, analysed data from 303 case families and 941 control families who participated in the Australian Study of Childhood Brain Tumours (Aus-CBT)—a nationwide case-control study designed to investigate environmental and genetic risk factors for CBT.

The study examined professional pesticide exposure in the year before pregnancy, during pregnancy and after the child is born, revealing a link between the timing of the exposure and the type of pesticides involved.

"Our results indicated that parents' exposure to professional pest control treatments in the home up to a year prior to falling pregnant is associated with an increased risk of their child developing a brain tumour," said Professor Milne.

"Of the pesticide treatments we looked at, it appeared that professional termite treatments posed a greater risk than other general insecticide

treatments," she said. "The increased risk associated with termite treatments may be as high as two-fold, while the increased risk with other pesticides may be about 30%."

The researchers say these findings, supported by those of other similar studies, suggest that it would be advisable for parents to avoid exposure to professional pest control treatments in the period leading up to conception.

Professor Milne cautioned that the results did not mean that pesticide exposure had caused brain tumours in children in the study.

"There are likely to be many causes of childhood brain tumours. What we are looking at here is factors that may increase risk and these findings cannot be extrapolated to an individual level," she said.

Provided by University of Western Australia

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