

Diesel fumes increase risk of childhood brain tumours, study finds

December 11 2012

(Medical Xpress)—A link between brain tumours in children and their parents' exposure to diesel exhaust fumes before birth has been found by researchers at The University of Western Australia-affiliated Western Australian Institute for Medical Research (WAIMR) and the Telethon Institute for Child Health Research (TICHR).

The study, "Parental Occupational Exposure to Engine Exhausts and Childhood Brain Tumours," which was published online in the [International Journal of Cancer](#), found that parents exposed to diesel exhaust fumes through their work had an increased risk of their child developing a childhood [brain tumour](#).

Childhood brain tumour is the leading cause of [cancer death](#) in children and most occur before the age of five.

Lead author Assistant Professor Susan Peters said while malignant brain tumours were recognised as the leading cause of [cancer mortality](#) in children, the risk factors for childhood brain tumours, despite decades of research, were largely unknown.

"This work on the occupational hazards faced by parents of children with brain tumours was part of a wider study led by TICHR, which also looked at other factors which may be involved in children developing brain tumours."

Professor Peters said researchers started investigating parental exposure

to diesel exhaust fumes after the International Agency for Research on Cancer listed it as a human carcinogen.

The study found that fathers who worked near diesel-powered equipment including cars, trucks, other heavy machinery and generators at about the time of conception, had children with an increased risk of childhood brain tumour. There was also an increased risk for mothers exposed to diesel exhaust fumes any time before the birth of their child.

[Diesel fumes](#) were the only engine exhaust fumes found to have a link to childhood brain tumour.

The Western Australian researchers gathered data from parents with children in all 10 paediatric oncology units across Australia. Parents of 306 children with childhood brain tumours and 950 people in the control group completed detailed occupational histories.

The researchers are now looking at other occupational exposures, including pesticides and solvents, and their possible link to [childhood brain](#) tumours.

Provided by University of Western Australia

Citation: Diesel fumes increase risk of childhood brain tumours, study finds (2012, December 11) retrieved 19 April 2024 from <https://medicalxpress.com/news/2012-12-diesel-fumes-childhood-brain-tumours.html>

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