

Commentary on: Danysh HE, Mitchell LE, Zhang K, Scheurer ME, Lupo PJ. Traffic-related air pollution and the incidence of childhood central nervous system tumors: Texas, 2001-2009. *Pediatr Blood Cancer.* 2015;62:1572-8.

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This study adds further evidence on potential risk factors of CNS tumors in children. Currently, the only established environmental risk factor is ionizing radiation.¹ Only few studies previously investigated childhood CNS tumors in relation to traffic related air pollution. The study by Danysh et al. is the largest study on this topic and included a sufficiently large number of cases separately to investigate the major histologic types. The strongest evidence of an association was found for astrocytomas (other than juvenile pilocytic astrocytoma), while the strongest associations, though not statistically significant, were found for primitive neuroectodermal tumors. These findings must be interpreted with caution: Exposure was measured at the level of census tracts and may only poorly reflect children's actual exposure levels. The failure to account for changes in census tract population levels over the study period may also have biased results. Nonetheless, the results point to potential etiologic differences between childhood CNS tumor phenotypes and could indicate that, in some children, etiology is related to traffic emissions.

References

[1] Johnson KJ, Cullen J, Barnholtz-Sloan JS, Ostrom QT, Langer CE, Turner MC, et al. Childhood brain tumor epidemiology: a brain tumor epidemiology consortium review. *Cancer epidemiology, biomarkers & prevention* 2014;23:2716-36.