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TSCA FLUORIDE TRIAL WITNESS SPOTLIGHT

# DR. BRUCE LANPHEAR

MD, MPH | Professor of Health Sciences at  
Simon Fraser University

Authored the seminal research on the neurotoxicity of lead.

Principal investigator of an ongoing study to examine the  
impact of early life fluoride exposures on intellectual ability.

*“Fluoride exposure during early brain  
development diminishes the intellectual abilities  
in young children.”*

Dr. Bruce Lanphear was the plaintiff's third witness called to the stand in the recent TSCA fluoride trial.

Dr. Lanphear is a medical doctor (MD) with a Masters of Public Health (MPH). He received his doctorate from the University of Missouri at Kansas City. He is an Investigator at BC Children's Hospital and a Professor of Health Sciences at Simon Fraser University. His research focuses on fetal and childhood exposures to environmental neurotoxins.

Dr. Lanphear is well-known in the environmental science community for authoring seminal research on the neurotoxicity of low-level lead<sup>1</sup>. His blood lead research, funded by the National Institutes of Health (NIH), was cited by the EPA as the critical study upon which the agency based the current national air standard for lead.

Dr. Lanphear is the principal investigator of an ongoing Canadian study to examine the impact of early life fluoride exposures on intellectual ability (MIREC)<sup>2</sup>. His research found that exposure to “optimal” levels of fluoride during fetal development is associated with diminished intelligence in childhood<sup>3</sup> (“optimal” levels are the levels at which community drinking water is fluoridated, typically at .7ppm).

As an expert witness in the TSCA fluoride trial, Dr. Lanphear provided a summary of opinions to the court on behalf of the plaintiffs, which included the Fluoride Action Network. Dr. Lanphear highlighted several key points in his summary to the court.

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*Maternal urinary fluoride levels in the MIREC cohort were significantly associated with lower intellectual abilities in 3-4-year-old children. These associations remain large and significant when controlling for relevant covariates.”*

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*Exposure to fluoridated water in infancy, particularly among formula-fed infants, was also associated with diminished intelligence. This association remains significant after controlling for fetal fluoride exposure and other relevant covariates, suggesting that susceptibility to fluoride’s adverse neurological effects may extend into infancy.”*

Looking at the wealth of studies published on fluoride's neurodevelopmental harm in recent years, Dr. Lanphear concluded that:



*The collective evidence from prospective cohort studies supports the conclusion that fluoride exposure during early brain development diminishes the intellectual abilities in young children, including at the purportedly “optimal” levels of exposure for caries prevention.”*

[Click here to access Dr. Lanphear’s full declaration.](#)

[Click here to access Dr. Lanphear’s website: “Little Things Matter”](#)

### References:

1. Lanphear et al, Low-Level Environmental Lead Exposure and Children’s Intellectual Function: An International Pooled Analysis, Environmental Health Perspectives, July 1, 2005 <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.7688>
2. Health Canada, Maternal-Infant Research on Environmental Chemicals (MIREC) Study <https://www.mirec-canada.ca/en/>
3. Green et al, Association Between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in Canada, Journal of the American Medical Association Pediatrics, Aug. 19, 2019 <https://jamanetwork.com/journals/jamapediatrics/fullarticle/2748634>