

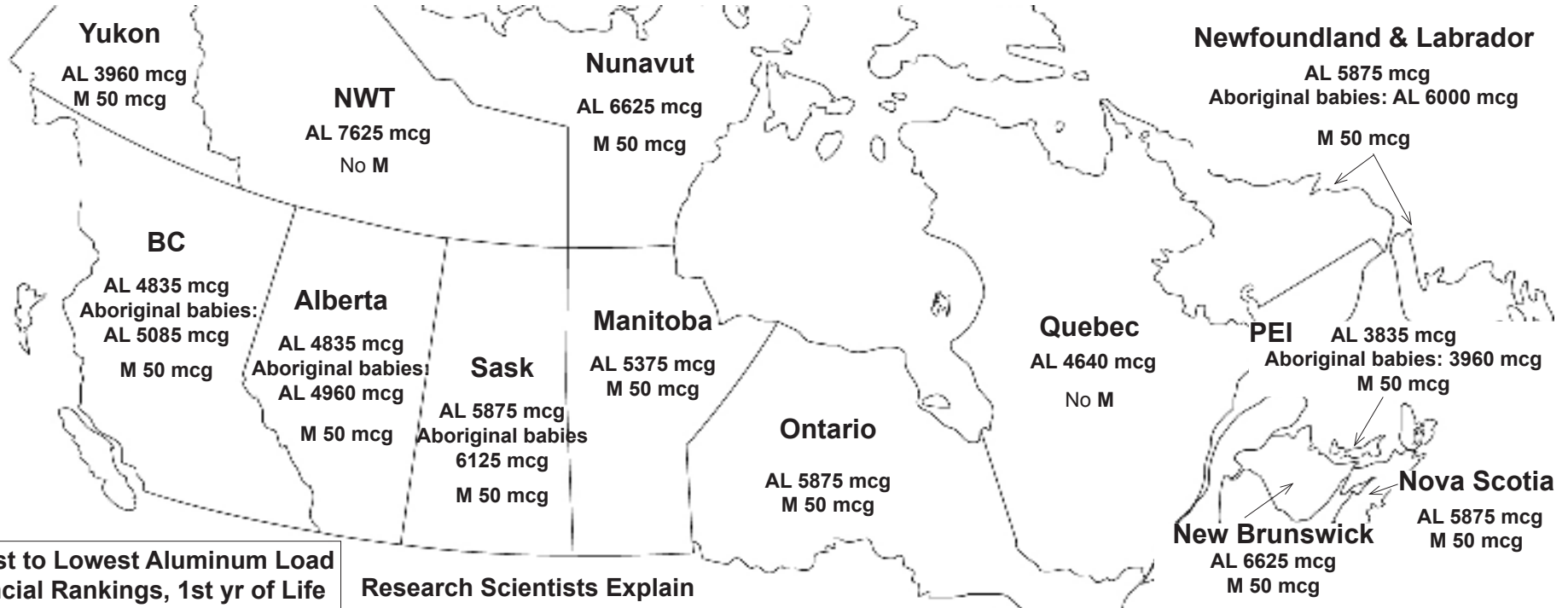
# Neurotoxin Load for Canadian Children following Routine Schedules in the 1st year of Life



Both Aluminum and Mercury are neurotoxins affecting brain development and function.

- **Bacterial vaccines** for Pertussis (the DTaPs), Meningococcal and Pneumococcal infections contain Aluminum. Hepatitis A & B virus vaccines also contain Aluminum and are used variously as noted on vaccine schedules.
- **Influenza ('flu') vaccines** used in Canada contain Thimerosal (**50% ethyl mercury**) in multi-dose vials. These are less expensive than single-dose vials or syringes and therefore in much greater use in routine vaccination programs. Only Quebec does not mandate flu vaccines for healthy children. Only the NWT uses a trivalent flu vaccine that does not contain mercury as it is only available in single-doses.

Provincial Total Aluminum (Al) and Mercury (M) loads in micrograms are shown below.



## Highest to Lowest Aluminum Load Provincial Rankings, 1st yr of Life

7625	NWT
6625	New Brunswick & Nunavut
6000	*Aboriginal only NFL
6125	*Aboriginal only Sask
5875	Sask, Ontario, NFL, Nova Scotia
5375	Manitoba
5085	*Aboriginal Only BC
4960	*Aboriginal only Alberta
4835	BC & Alberta
4640	Quebec
3960	*Aboriginal only PEI
3960	Yukon
3835	PEI

## Research Scientists Explain

"Aluminum is an experimentally demonstrated neurotoxin and the most commonly used vaccine adjuvant... In particular, aluminum in adjuvant form carries a risk for autoimmunity, long-term brain inflammation and associated neurological complications and may thus have profound and widespread adverse health consequences."

Source: [Aluminum Adjuvants: Are they Safe?](https://www.ncbi.nlm.nih.gov/pubmed/21568886), Chris Shaw & Lucia Tomljenovic, 2011. <https://www.ncbi.nlm.nih.gov/pubmed/21568886>

"This [Aluminum] has been used as an adjuvant for the past 90 years but it is also an experimentally demonstrated neurotoxin. Experimental research has showed that alum adjuvants have a potential to induce serious immunological disorders in humans. Thus, efforts should be put in clarifying the potential threat of alum-containing vaccines."

Source: [Autoimmune/inflammatory syndrome induced by adjuvants \(ASIA\)](https://vaccinesafety-commission.org/pdfs/13-2013-Autoimmunity-Perricone.pdf) Perricone, Shoenfeld, et al 2013. <https://vaccinesafety-commission.org/pdfs/13-2013-Autoimmunity-Perricone.pdf>

"An important and vaccination-specific distinction to make at this point and to carry forward to the following discussion is that aluminium injected into muscle as an adjuvant in a vaccine potentially has uninterrupted access to the infant brain."

Source: [Aluminum adjuvant in a vaccine is an acute toxic exposure](https://www.sciencedirect.com/science/article/pii/S0946672X19304201). Exley, 2019: <https://www.sciencedirect.com/science/article/pii/S0946672X19304201>