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RE: Neurological Effects of Fluoride

Dear Dr. Thayer,

I wish to make a public comment on the Nomination for Assessment of Neurological Effects of Fluoride. I am extremely grateful that the NTP has accepted this nomination for study. I have a mother's perspective that, I hope, might be heard by NTP scientists because there is a profound need.

My 30 year old son, Kyle, has autism and is one of countless individuals with autism spectrum disorders (ASD) who are hyper-sensitive to chemicals. In the "autism world", dealing with chemical sensitivities is very common, rather than the exception. For even very conscientious parents, public tap water is not an expected source of chemicals. My son was 14 before I finally recognized that he was experiencing terrible pain from fluoridated water. That pain dramatically affected his behavior and significantly worsened his autistic symptoms. ASDs are lifelong and are diagnosed solely by behavioral symptoms.

I have attached Kyle's story of hypersensitivity to fluoride, along with a letter from his doctor. I, too, react to fluoride, but to a far lesser degree, and this is also discussed briefly in the attachment. This comment submission is on behalf of parents and doctors who **don't know** what my son and I have learned the hard way---that much suffering can be relieved by removing exposures to fluorides.

There is a desperate need for research of the effects of fluoride chemicals in public water on children with autism, **specifically**, with current and past negative effects in mind. This population is uniquely vulnerable to chemicals such as fluoride, and their numbers are growing at an alarming rate.

In 1985, when Kyle was born, the rate of autism was reported as 3-5 per 10,000---or about 1 in 2,500. According to the CDC the prevalence of Autism Spectrum Disorders, by surveillance year, were:
<http://www.cdc.gov/ncbddd/autism/data.html>

2000	1 in 150
2004	1 in 125
2006	1 in 110
2008	1 in 88
2010	1 in 68 (8 yr olds only)
2014	1 in 45 ? (3-17 yr olds) not yet updated on the CDC website

CDC's Nov 2015 National Health Statistics Report <http://www.cdc.gov/nchs/data/nhsr/nhsr087.pdf> using 2014 data, reveals on page 8 that the updated rate of ASDs is 22.4 per 1,000 in children aged 3-17. Therefore, there are significantly more than 1 in 45 3 year olds that have been diagnosed with ASD than 17 yr olds. And, considering the graph on page 7, the projected number of infants that will be diagnosed sometime in their childhood will far exceed 1 in 45. If we change nothing, what will it be in 2025? 2035?

To a mother who has "lived autism" for 3 decades, this trend is a horror beyond anything imaginable. Is it only a matter of time until every child will be damaged? Parents beg to know the cause of autism.

The CDC offers little explanation, and no helpful details: <http://www.cdc.gov/ncbddd/autism/signs.html>

"Autism spectrum disorder (ASD) is a developmental disability caused by differences in the brain. Scientists do not know yet exactly what causes these differences for most people with ASD. However, some people with ASD have a known difference, such as a genetic condition. There are multiple causes of ASD, although most are not yet known."

To sum up, the largest and most prominent public health agency in the world hasn't a clue and isn't looking for the greatest public health disaster of our time. I'm asking you to start looking...to consider the effects of fluoridation, a public health policy that affects over 70% of fetuses and infants in the US, on this highly vulnerable population. Genetics are only part of the picture---genetic differences cannot cause an epidemic without a very prevalent environmental trigger. Could that trigger involve fluoride?

As yet, there is no apparent evidence that fluoride **alone** causes autism, in spite of strong evidence of neurodevelopmental harm. There are many possible triggers or combinations of triggers and fluoride is just one in a long line of potential causes that are not being researched, but should have been years ago.

In Chapter 9 of the book "Cellular and Molecular Biology of Autism Spectrum Disorders" written by Anna Strunecka and Russell Blaylock, a very plausible theory is proposed about the synergistic effect of fluoride in the presence of aluminum. I have attached that chapter. The full book can be found here: https://books.google.com/books?id=lgNvt7t5ao4C&printsec=frontcover&source=gbs_ge_summary_r&ad=0#v=onepage&q&f=false Aluminum, like fluoride, is so prevalent that it is very difficult to avoid.

Genes may hold some answers, but after 15 years of most autism research dollars going to genetic research---and still no solutions and no reduction in the rate of ASD---research must be re-directed to potential environmental triggers, especially those that are promoted by public policy and conducted by governments, because those triggers would be so widespread as to be unavoidable if unaware.

It is evident that the total dose of the environmental trigger(s) causing autism are increasing steadily. Dental fluorosis, proof of too much fluoride, and affecting 41% of teens, is also increasing steadily.

Are there lab rats with genetic or metabolic differences that are similar to people with autism with deficits in methylation, sulfation or acetylation pathways? If yes, please consider those in your research.

It would seem likely that the specific vulnerabilities that makes that one baby out of 45 develop autism, would also make that infant **far more vulnerable** to the neurotoxic effects of fluoride than the other 44. Further, if memory deficits and IQ loss from fluoride are found in the *average* child, those effects would likely be greater in the ASD child (even if fluoride is not found to be causative in ASD) and that cognitive loss when combined with the challenging characteristics of autism create formidable lifelong disabilities.

Thanking you very sincerely for considering my comments,

Audrey Adams
[Redacted]