

Chair Salinas and members of the Committee:

My name is Darcy Rapoza, and I oppose HB 3063.

An adjuvant is a substance in a vaccine that helps activate the immune system. The antigens (pathogen components) alone are not sufficient to induce an activation of the immune system - it needs the adjuvant to provoke the immune system into recognizing the antigen. Vaccines that contain adjuvants will not work without them.

Aluminum compounds (Al hydroxide and Al phosphate) are the most common adjuvants used in vaccines. They are currently used in Hepatitis A, Hepatitis B, DTaP, Tdap, Hib, HPV, Meningococcal B, and PCV 13 vaccines.

Published research on aluminum adjuvants is so new that it has not even been considered by the FDA or CDC. They are still basing their recommendations on aluminum use in vaccines on a study from 2011¹ by Dr. Robert J. Mitkus, that incorrectly concluded that aluminum from a vaccine likely ends up in the body's skeletal system.

This study is the primary document the FDA relies on to declare injected aluminium is safe for use in infants. Unfortunately, this study is fatally flawed. The only biological science that Dr. Mitkus considered when he made his safety assessment was one single study that infused **(rather than injected)** aluminum citrate **(rather than aluminum hydroxide)** into adults **(rather than babies)**.

In what other scenario besides vaccines, would it be acceptable to conduct a drug safety study without using the actual product **(aluminum hydroxide)** administered in the proper way **(intramuscular injection)**, into the proper patient population **(infants)**?

More detailed information about the flaws of the Mitkus study is available here.²

So, since the CDC's assurances that aluminum is perfectly safe to be injected into our children is based on one flawed study, and does not take into account more recent science, we must look at what the new science is discovering. Not a single one of these new discoveries or published studies was considered in Dr. Mitkus' paper because they all came after it. The Government has never revisited this topic in light of this new information.

1. From France³, 2016: "We conclude that Alhydrogel (aluminum adjuvant) injected at low dose in mouse muscle may selectively induce long-term Al cerebral accumulation and neurotoxic effects. To explain this unexpected result, an avenue that could be explored in the future relates to the adjuvant size since the injected suspensions corresponding to the lowest dose, but not the highest doses, exclusively contained small agglomerates in the bacteria-size range known to favor capture and, presumable, transportation by monocyte-lineage cells. **In any event, the view that Alhydrogel neurotoxicity obeys 'the dose makes the poison' rule of classical**

chemical toxicity appears overly simplistic (emphasis added)." (*The scientists are saying that small doses of aluminum adjuvant are actually more dangerous and toxic than large doses.*) "As a possible consequence, comparing vaccine adjuvant exposure to other non-relevant aluminum exposures, e.g. soluble aluminum and other routes of exposure, may not represent valid approaches." "In the context of massive development of vaccine-based strategies worldwide, **the present study may suggest that aluminum adjuvant toxicokinetics and safety require reevaluation** (emphasis added)."

2. From Canada⁴, 2012: "Aluminum is highly neurotoxic and has been shown to impair both prenatal and postnatal brain development in humans and experimental animals." "It is somewhat surprising to find that in spite of over 80 years of use, **the safety of Al adjuvants rests on assumptions rather than scientific evidence** (emphasis added)." "However, the existing data (or lack thereof) raise questions on whether the current vaccines aimed at pediatric populations can be accepted as having adequate safety profiles. Because infants and children represent those who may be most at risk for complications following vaccination, **a more rigorous evaluation of potential vaccine-related adverse health impacts in pediatric populations than what has been provided to date is urgently needed** (emphasis added)."

3. From France⁵, 2013: "However, continuously escalating doses of this poorly biodegradable adjuvant in the population may become **insidiously unsafe** (emphasis added), especially in the case of overimmunization or immature/altered blood brain barrier."

4. From France⁶, 2015: "Thus alum (aluminum) and other poorly biodegradable materials taken up at the periphery by phagocytes circulate in the lymphatic and blood circulation and **can enter the brain using a Trojan horse mechanism** (emphasis added) similar to that used by infectious particles. Previous experiments have shown that alum administration can cause CNS dysfunction and damage, casting doubts on the exact level of alum safety."

5. From England⁷, 2017: "The amount of aluminum in the brain tissue was, I would say, extraordinarily high. Very high. My group has measured the aluminum content of probably more than one hundred human brains, and these brain tissues taken from the individuals with a diagnosis of autism were some of the highest we've measured bar none. The only ones we've seen that are similar were a recent study of familial Alzheimer's. This in itself is a very important finding."

6. From Spain⁸, 2018: "Aluminum (Al)-containing vaccines are common in sheep management and they have been associated with the Autoimmune/inflammatory Syndrome Induced by Adjuvants (ASIA syndrome). Animals in groups B (Adjuvant Only) and C (Vaccine) exhibited behavioral changes: affiliative interactions were significantly reduced and aggressive interactions and stereotypies increased significantly. They also exhibited a significant increase in excitatory behavior and compulsive eating. This study is the first to describe behavioral changes in sheep after having received repetitive injections of Al-containing products, explaining some of the clinical signs observed in ovine ASIA syndrome."

Here is a graphic of the aluminum load of the current pediatric schedule up to 18 months:

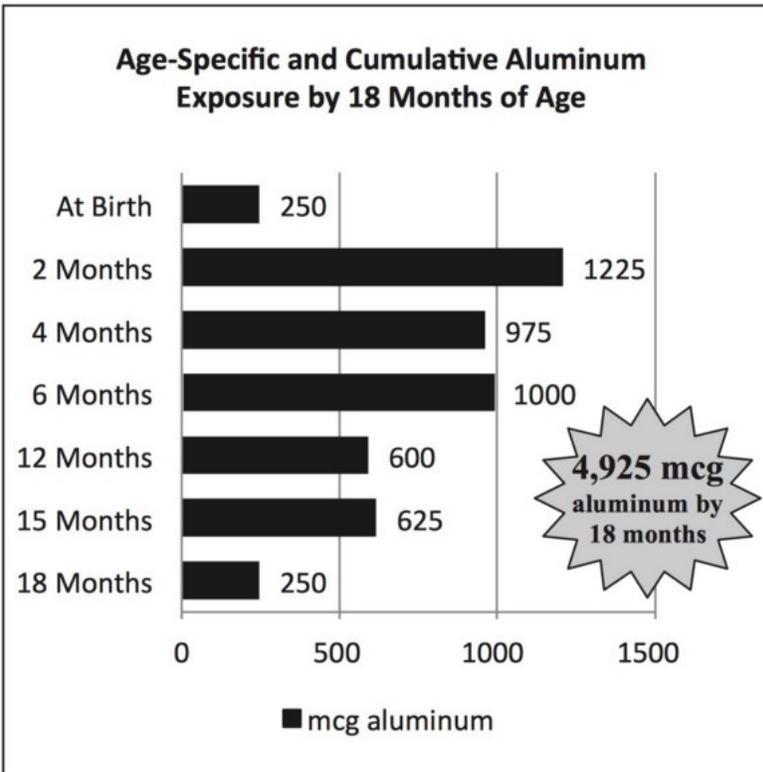


Figure 2. Cumulative Aluminum Exposure from Recommended Childhood Vaccines

Source: The vaccine manufacturers' product inserts and the CDC's 2016 childhood vaccination schedule.

A child in the mid-1980's would have received 1,250 micrograms of aluminum by 18 months, if fully vaccinated. Today, that number is **4,925 micrograms**, a near quadrupling⁹. Most newborns are given the Hepatitis B vaccine on Day 1 of life. This vaccine contains **250 micrograms** of aluminum. The number that is generally used for "safe" levels of aluminum is 5 micrograms/kg/day. An average newborn weighs 7.5 lbs or 3.5kg. Therefore, a safe level of aluminum for an infant that size is **17.5 micrograms/day**. The average 2 month old weighs approximately 11 lbs or 5kg. The "safe" level for a child this size would be **25 micrograms/day**. The amount of aluminum contained in the typical 2 month shots (given on the same day) is **1,225 micrograms**. Also, a study was published in July of 2018 that reports that the aluminum levels in vaccines are based *only* on immune efficacy and actually ignore body weight for safety¹⁰. In other words, the manufacturer adds the amount of aluminum that is required to make the vaccine work, with no thought to the amount that is safe for the body weight of the recipient.

I believe this new research that the Government has not accounted for in their recommendation that aluminum is safe when injected is critically important. Especially when we are discussing mandating products containing aluminum and we have an industry that is liability-free if a child is injured or dies from the product. Simply because of the unknowns, and the emerging science that calls aluminum adjuvants' safety into question, it is imperative that parents retain the right to decline vaccinations for their children.

The Government is so slow to move and change when new information is brought to light because of the nature of a monstrous bureaucracy. It isn't in its nature to be nimble, and to change directions quickly. But, I'm afraid that isn't good enough for our precious children that ALL of us are trying to protect. We MUST retain the right to decide what is best for our children, in cooperation with our doctors - without the Government inserting itself in the process.

There are just too many unknowns in the science for blanket mandates to be put in place that will deprive over 31,000 Oregon children the right to a free and public education.

Please stand up to protect all children.

Please vote NO on HB 3063!

Respectfully,

Darcy J. Rapoza
Salem

References

¹ <https://vaccinepapers.org/wp-content/uploads/FDA-aluminum-paper.pdf>

² <http://vaccinepapers.org/debunking-aluminum-adjuvant-part-2/>

³

<http://vaccinepapers.org/wp-content/uploads/Non-linear-dose-response-of-aluminium-hydroxide-adjuvant-particles-Selective-low-dose-neurotoxicity.pdf>

⁴ <http://vaccinesafetycommission.org/pdfs/22-2012-Lupus-Aluminum-Shaw.pdf>

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<http://vaccinepapers.org/wp-content/uploads/slow-ccl2-dependent-translocation-of-biopersistent-particles-from-muscle-to-brain.pdf>

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<http://vaccinepapers.org/wp-content/uploads/Biopersistence-and-brain-translocation-of-aluminum-adjuvants-of-vaccines.pdf>

⁷

<https://worldmercuryproject.org/wp-content/uploads/Mold-2017-Aluminum-in-Brain-Tissue-and-Autism.pdf>

⁸ <https://www.ncbi.nlm.nih.gov/pubmed/30395948>

⁹ <http://www.jpands.org/vol21no4/miller.pdf>

¹⁰ <https://www.sciencedirect.com/science/article/pii/S0946672X17300950>