

CONCLUSION

Today about 1 in 6 American children suffer from a neurodevelopmental disorder, a large increase compared to decades ago. Vaccines are very likely contributing to this new crisis.

Vaccine advocates are silent about the research on Al adjuvant toxicity and immune activation.

There has never been a study of the entire vaccine schedule, comparing health outcomes with the unvaccinated. Further, vaccine studies almost never use unvaccinated controls, but rather use other vaccines or Al adjuvant as false placebos. Such research is unscientific and cannot establish safety.

A 1986 federal law completely protects vaccine manufacturers from all product liability lawsuits. Consequently, the industry has no incentive to make safe vaccines. Perverse incentives resulting from this law encourage continued production of unsafe vaccines.

Supporting references provided at:

VaccinePapers.org/brochure

“...the existing evidence on the toxicology and pharmacokinetics of Al adjuvants...strongly implicate these compounds as contributors to the rising prevalence of neurobehavioral disorders in children.” [3]

— Dr C.A Shaw (University of British Columbia) et al.

“And what does a vaccination do? It activates the immune system. That’s the point of vaccination... I think that universal vaccination of pregnant women could get us into a whole new set of problems.” (2006)

— Dr Paul Patterson (California Institute of Technology)

“Maternal immune activation yields male offspring with deficient social and communicative behavior, as well as high levels of repetitive behaviors, all of which are hallmarks of autism.” [6]

— Dr Paul Patterson (California Institute of Technology) et al.

“Interleukin-6 is necessary and sufficient for producing autism in the offspring...” [7]

— Dr Eduardo Pineda (David Geffen School of Medicine, UCLA) et al.

OBJECTIONS ANSWERED

What about the studies showing vaccines do not cause autism?

They look only at MMR, which does not contain Al and is given at older ages when the brain is less sensitive to immune activation. Also, MMR-autism studies ignore healthy user bias, created when parents do not give MMR to children with neurological damage caused by prior vaccines [11].

But aluminum has been used in vaccines for over 80 years.

TRUE. But it has not been studied for safety, until recently. Al dosage from vaccines increased dramatically in the last 25 years, in parallel with childhood neurodevelopmental disorders.

Aluminum is everywhere and ingested constantly. It cannot be harmful.

99.7% of ingested aluminum is not absorbed. The absorbed 0.3% comprises dissolved ions, which are rapidly eliminated in urine. Al adjuvant comprises low-solubility Al nanoparticles, which cannot be eliminated in urine and are far more harmful than soluble Al.

But immune activation studies are based on prenatal immune activation, not postnatal.

Most, but not all immune activation studies use prenatal exposure [8]. For years after birth the human brain remains sensitive to immune activation. Consequently, postnatal immune activation can damage the brain just like prenatal can. Also, the CDC recklessly promotes multiple vaccines for pregnant women, causing prenatal exposure.

Are there ways to prevent damage from aluminum and immune activation?

YES. The nutrient silica removes Al from the body. Taurine and curcumin reduce Al neurotoxicity [5]. Vitamin D regulates immune activation, and has been observed to reverse autism [12].

REFERENCES

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- 4 Khan et al. 2013 “Slow CCL2-dependent translocation of biopersistent particles from muscle to brain”, *BMC Medicine* 11. PMID: 23557144
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- 6 Bilkei-Gorzo 1993 “Neurotoxic Effect of Enteral Aluminum”, *Food Chem Toxicol.* 31. PMID: 8505021
- 7 Kneusel et al. 2014 “Maternal Immune Activation and Abnormal Brain Development Across CNS Disorders”, *Nature ReviewsNeurology*, 10. PMID: 25311587
- 8 Wei et al. 2012 “Brain IL-6 Elevation Causes Neuronal Circuitry Imbalances and Mediates Autism-Like Behaviors”, *Biochim Biophys Acta.* PMID: 22326556
- 9 Malkova et al. 2012 “Maternal Immune Activation Yields Offspring Displaying Mouse Versions of the Three Core Symptoms of Autism”, *Brain Behav Immun.* 26. PMID 22310922
- 10 Pineda et al. 2013 “Maternal Immune Activation Promotes Hippocampal Kindling Epileptogenesis in Mice”, *Ann Neurol.* 74. PMID: 23907982
- 11 See VaccinePapers.org/healthy-user-bias
- 12 Jia et al. 2015 “Core Symptoms of Autism Improved After Vitamin D Supplementation”, *Pediatrics* 135. PMID: 2551123

Vaccines and the Brain

The most important science is being ignored.



Powerful scientific evidence shows 2 ways vaccines cause brain damage.

1 Aluminum Adjuvant Toxicity

Vaccines contain neurotoxic amounts of aluminum, which can cause brain damage.

2 Immune System Activation

A developing brain can be damaged when the immune system is activated by a vaccine. Immune activation has been researched extensively and is proven to cause autism and other brain damage.

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Aluminum Adjuvant

Aluminum (Al) adjuvant is a vaccine ingredient used for stimulating the immune system. It is used in many vaccines. Infants in the USA receive dosages of Al adjuvant that cause brain damage in animal experiments. The dosages of Al adjuvant received according to the CDC vaccine schedule are:*

CDC VACCINE SCHEDULE

Aluminum		
Birth	74 mcg/kg	(1 vaccine with 250 mcg, 3.4 kg infant)
2 months	245 mcg/kg	(6 vaccines with 1225 mcg, 5 kg infant)
4 months	150 mcg/kg	(5 vaccines with 975 mcg, 6.5 kg infant)
6 months	153 mcg/kg	(7 vaccines with 1225 mcg, 8 kg infant)
TOTAL	622mcg/kg	3675 mcg aluminum

In scientific experiments, dosages of 100mcg/kg, 300mcg/kg, and 550mcg/kg Al adjuvant cause neuron death, muscle weakness, learning and memory impairment, and pathological behavior changes in animals.

*Aluminum dosage varies by vaccine manufacturer and infant weight. Chart shows maximum possible dosages for average-weight infants. Charts and graphs below redrawn from originals

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Dosage of 550mcg/kg also caused excessive weight gain (a sign of metabolic disorder). All 3 dosages (100, 300 and 550mcg/kg) also caused numerous signs of nerve damage (observable by microscopy and biochemical changes) and/or abnormal anxious behavior.

All these results together are conclusive evidence of brain damage caused by the same dosages (mcg/kg) human infants receive according to the US vaccine schedule.

Vaccine advocates argue that injected Al adjuvant is safe, based on studies of ingested Al salts. This is unscientific because ingesting Al salts and injecting Al nanoparticles present very different risks. Both the route of administration and the chemical forms are different.

Recent experiments prove that Al adjuvant is transported into the brain by white blood cells [4]. This explains why injected Al adjuvant can be more dangerous to the brain than ingested Al salts.

Vaccine advocates like Paul Offit make false statements about Al toxicity studies. The studies show that ingested Al is harmful at dosages less than half of what advocates claim to be safe [5, 6].

Immune Activation

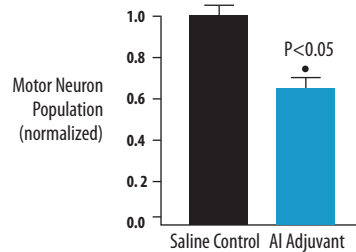
In early life, the brain and immune system develop together. Communication chemicals ("cytokines") used by the immune system also guide brain development. Immune activation causes surges in cytokine production; cytokine surges during brain development cause permanent brain damage and mental illnesses. The brain-damaging effects of immune activation have been studied extensively. The science is high quality and there is a lot of it [7]. It is well-known that vaccines cause immune activation and can cause surges of many different cytokines.

Research has identified interleukin-6 (IL-6) as the specific cytokine responsible for autism; IL-6 is stimulated by vaccine adverse reactions (fever, seizures). IL-6 causes all three autism traits (social impairment, speech impairment and compulsive behavior), and damage to specific brain structures (e.g., the cerebellum) known to be damaged in human autism. Both prenatal and postnatal surges of IL-6 can cause autism [8, 9].

Immune activation during brain development has also been shown to cause schizophrenia, seizure disorders [10], and ADHD.

Motor Neuron Death

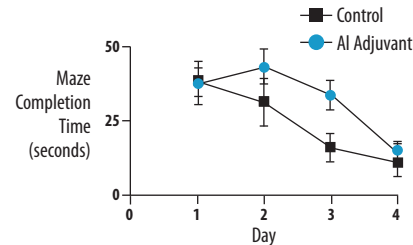
100mcg/kg



100mcg/kg Al adjuvant destroyed about 35% of motor neurons in mice in the lower (lumbar) spine [1].

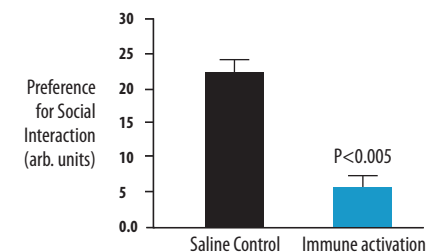
Learning & Memory Impairment

300mcg/kg



300mcg/kg Al adjuvant impaired learning and memory in mice. Impairment is significant with P=0.0389 [2].

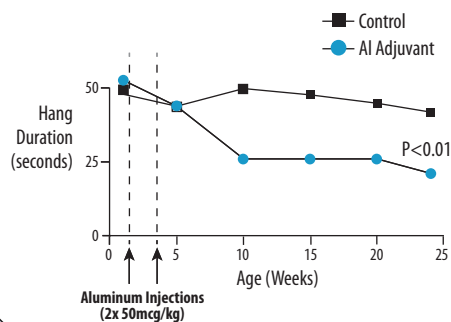
Social Behavior Impairment



Immune activation caused mice to associate with inanimate objects instead of other mice [6].

Muscle Strength Reduction

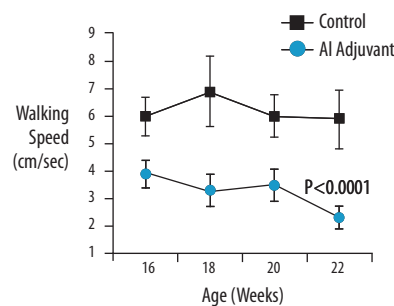
100mcg/kg



100mcg/kg Al adjuvant reduced neuromuscular strength, as measured by the duration mice can hang on a wire mesh [1].

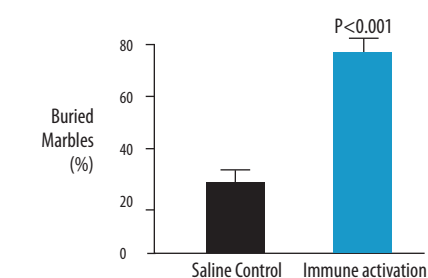
Movement Impairment

550mcg/kg



550mcg/kg Al adjuvant caused a 50% reduction in walking speed (a sign of neurological damage) in male mice. Many other adverse changes were also observed. Al adjuvant injected at ages 0-3 weeks [3].

Compulsive Behavior Increase



Immune activation caused high levels of repetitive/compulsive behavior in mice (marble burying in this experiment) [6].