

# Mercury and Aluminum in Vaccines

## *The Dark Side of Preventive Medicine*

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*Primum non nocere* is Latin for “First, do no harm,” one of the guiding principles of medical care. Yet there is a large body of scientific evidence confirming numerous vaccine safety deficits that counteract well-publicized benefits. For example, several studies show that mercury (thimerosal) and aluminum in vaccines can cause neurological, immunological and developmental harm.

### Mercury

In one recently published peer-reviewed study, boys who received hepatitis B vaccines containing mercury were three times more likely than unvaccinated boys to develop autism.<sup>1</sup> Another study found that rates of autism and mental retardation were six times higher in children who received DTaP vaccines with thimerosal compared to those who received thimerosal-free DTaP vaccines.<sup>2</sup>

The Centers for Disease Control and Prevention (CDC) is fully aware of the link between thimerosal in vaccines and neurological disorders, including autism. In April of 2000, the CDC’s *Epidemic Intelligence Service* published the abstract of a study in which CDC scientists analyzed vaccination and demographic data on more than 400,000 infants.<sup>3</sup> This study was designed to determine whether infants who are exposed to ethylmercury from thimerosal-containing vaccines are at increased risk of degenerative and developmental neurologic disorders and renal disorders before the age of six. The risk of developing a neurologic development disorder was nearly twice as high (RR = 1.8) in infants who received the highest cumulative exposure to ethylmercury (> 25 mcg) from thimerosal-containing vaccines at one month of age when compared to infants who were unexposed to mercury. One-month-old infants with the highest cumulative exposure to ethylmercury also had twice the risk of developing a speech disorder, five times the risk of developing a non-organic sleep disorder, and were 7.6 times more likely to develop autism when compared to infants who were unexposed to mercury from thimerosal-containing vaccines. The CDC must have been unhappy with the findings because the full study was never published.

A more recent study found that psychomotor development — the ability to crawl, walk, and run — is adversely affected by neonatal exposure to thimerosal-containing vaccines. The authors of this paper wrote:

*Our results have shown that ethylmercury is not completely harmless for the first stage of life and may be responsible for poorer outcomes of psychomotor development in children.*<sup>4</sup>

Several animal studies support this finding. For example, young rats injected with thimerosal in doses equivalent to those used in infant vaccines developed severe brain pathologies.<sup>5</sup> In another study, young mice and rats injected with thimerosal had behavioral impairments characteristic of autistic children.<sup>6</sup>

Despite these ominous scientific findings, infants in third world nations continue to receive high concentrations of mercury from thimerosal containing vaccines. The World Health Organization (WHO) recommends thimerosal-containing vaccines for third world infants because it saves about 15 cents per dose when compared to thimerosal-free vaccines.<sup>7</sup> In the United States, the CDC recommends influenza vaccines for pregnant women and two doses of an influenza vaccine for all infants. Most influenza vaccines contain thimerosal, so many U.S. children are receiving thimerosal in utero, then again as infants.

### Aluminum

Several vaccines contain aluminum to stimulate a more robust antibody response. However, numerous studies provide strong evidence that aluminum is detrimental to health. For example, in one paper researchers found that aluminum in vaccines can cause chronic fatigue, sleep disturbances, multiple sclerosis-like demyelinating disorders, and memory problems. According to the authors of this paper:

*On the grounds of our clinical and experimental data, we believe that increased attention should be paid to possible long-term neurologic effects of continuously escalating doses of alum-containing vaccines administered to the general population.*<sup>8</sup>

In another scientific paper, researchers discovered that aluminum in vaccines can travel to distant organs, like the spleen and brain, and become “insidiously unsafe.” The well-respected journal, *Lupus*, recently published a paper providing evidence that aluminum in vaccines can provoke permanent malfunctions of the brain and immune system.

The authors gave the following warning:

*Because children may be most at risk of vaccine-induced complications, a rigorous evaluation of the vaccine-related adverse health impacts in the pediatric population is urgently needed.*<sup>9</sup>

These scientific papers represent just a few of the many that document potential hazards associated with mercury- and aluminum-containing vaccines. In future articles, I will provide important scientific evidence linking vaccines to increased rates of cancer, allergies, seizures, bleeding disorders and type 1 diabetes. I will also discuss herd immunity, conflicts of interest, false studies, and industry control of biomedical research.

## Citations

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**Neil Z. Miller** is a medical research journalist and the author of *Miller's Review of Critical Vaccine Studies: 400 Important Scientific Papers Summarized for Parents and Researchers*.