VACCINES DO NOT CAUSE AUTISM OR AUTISM SPECTRUM DISORDER

Autism spectrum disorder (ASD) is a developmental disability that is caused by differences in how the brain functions. People with ASD may communicate, interact, behave, and learn in different ways. Recent estimates from CDC's Autism and Developmental Disabilities Monitoring Network found that about 1 in 68 children have been identified with ASD in communities across the United States. CDC is committed to providing essential data on ASD, searching for causes of and factors that increase the risk for ASD.

There is no link between vaccines and autism.

Some people have had concerns that ASD might be linked to the vaccines children receive, but studies have shown that there is no link between receiving vaccines and developing ASD.

A 2013 CDC study [PDF – 204 KB] added to the research showing that vaccines do not cause ASD. The study looked at the number of antigens from vaccines during the first two years of life. The results showed that the total amount of antigen from vaccines received was the same between children with ASD and those that did not have ASD.

Vaccine ingredients do not cause autism.

One vaccine ingredient that has been studied specifically is thimerosal, a mercury-based preservative used to prevent contamination of multidose vials of vaccines. Research shows that thimerosal does not cause ASD. Since 2003, there have been nine CDC-funded or conducted studies[PDF – 357 KB] that have found no link between thimerosal-containing vaccines and ASD, as well as no link between the measles, mumps, and rubella (MMR) vaccine and ASD in children.

Vaccines are not associated with autism: An evidence-based meta-analysis of case-control and cohort studies

Abstract

There has been enormous debate regarding the possibility of a link between childhood vaccinations and the subsequent development of autism. This has in recent times become a major public health issue with vaccine preventable diseases increasing in the community due to the fear of a ‘link’ between vaccinations and autism

We performed a meta-analysis to summarise available evidence from case-control and cohort studies on this topic (MEDLINE, PubMed, EMBASE, Google Scholar up to April, 2014). Eligible studies assessed the relationship between vaccine administration and the subsequent development of autism or autism spectrum disorders (ASD). Two reviewers extracted data on study characteristics, methods, and outcomes.

Five cohort studies involving 1,256,407 children, and five case-control studies involving 9,920 children were included in this analysis. The cohort data revealed no relationship between vaccination and autism (OR: 0.99; 95% CI: 0.92 to 1.06) or ASD (OR: 0.91; 95% CI: 0.68 to 1.20), nor was there a relationship between autism and MMR (OR: 0.84; 95% CI: 0.70 to 1.01), or thimerosal (OR: 1.00; 95% CI: 0.77 to 1.31), or mercury (Hg) (OR: 1.00; 95% CI: 0.93 to 1.07).

Similarly the case-control data found no evidence for increased risk of developing autism or ASD following MMR, Hg, or thimerosal exposure when grouped by condition (OR: 0.90, 95% CI: 0.83 to 0.98; $p = 0.02$) or grouped by exposure type (OR: 0.85, 95% CI: 0.76 to 0.95; $p = 0.01$). Findings of this meta-analysis suggest that vaccinations are not associated with the development of autism or autism spectrum disorder.

Furthermore, the components of the vaccines (thimerosal or mercury) or multiple vaccines (MMR) are not associated with the development of autism or autism spectrum disorder.

There was no relationship between vaccination and autism (OR: 0.99; 95% CI: 0.92 to 1.06).

There was no relationship between vaccination and ASD (autism spectrum disorder) (OR: 0.91; 95% CI: 0.68 to 1.20).

There was no relationship between [autism/ASD] and MMR (OR: 0.84; 95% CI: 0.70 to 1.01).

There was no relationship between [autism/ASD] and thimerosal (OR: 1.00; 95% CI: 0.77 to 1.31).

There was no relationship between [autism/ASD] and mercury (Hg) (OR: 1.00; 95% CI: 0.93 to 1.07).

Findings of this meta-analysis suggest that vaccinations are not associated with the development of autism or autism spectrum disorder.