

Increasing Exposure to Antibody-Stimulating Proteins and Polysaccharides in Vaccines Is Not Associated with Risk of Autism

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**Summary:**

This article describes a study that looked at whether children who had a disease on the autism spectrum received more immunogens (antibody-stimulating proteins and polysaccharides - the parts of a vaccine that help the body recognize and develop immunity for specific diseases) through vaccines than children who do not have any disorder on the autism spectrum. The authors concluded that receiving more immunogens through vaccines during a child's first year of life did not put them at an increased risk of developing any of the autistic disorders studied.

Defining autism and related disorders

Autism is a complex disorder that often makes it difficult for children to have regular social and communication skills, as well as speech development. Researchers looked at data for children who fell into 3 categories of diagnosis for this study: autism spectrum disorders (ASDs), autistic disorder (AD), and ASD with regression. Because children with autism have a large range of symptom severity, we often refer to autism as "autism spectrum disorders" or ASD. This allows for the inclusion of children with varying degrees of challenges.

**Article Details:**

The children included in this study were 752 children who did not have any autistic diagnoses (called controls) and 321 children who were included as "cases" which means they had a diagnosis of ASD (256 children), AD (187 children), and ASD with regression (49 children). Because AD is a diagnosis that means ASD diagnosis with stricter criteria, the 187 children diagnosed with AD also had ASD. All children were aged 6-13 years, and were born between 1994 and 1999. Cases were selected first and then children with similar demographics were chosen as controls. The study did not include children who were known to have medical conditions which lead to or are linked to ASDs. These excluded conditions include, fragile X syndrome, tuberous sclerosis, Rett syndrome, congenital rubella syndrome or Angelman syndrome.

After the children were identified for the study, authors looked at the total number of immunogens to which children were exposed and analyzed whether the children who had been diagnosed with any of the autistic disorders studied had been exposed to greater or fewer immunogens than the children without these conditions. The authors looked at these exposures to immunogens from birth to 3 months of age, from birth to 7 months of age, and from birth to 2 years of age. They also looked at exposures in just one day, and exposures over the entire periods.

Authors found that children who received more antigens in a single day, or over the cumulative study period were no more likely to have been diagnosed with one of the autistic disorders than children who received fewer antigens. They also found that as exposure to antigens increased, the likelihood of having been diagnosed with an autistic disorder was not any greater. They concluded that they found no evidence to support the parental concerns that infant exposure to immunogens from vaccines could contribute to autism.