

Children with autism and their younger siblings less likely to be fully vaccinated

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Children with autism and their younger siblings are significantly less likely to be fully vaccinated than the general population, according to new Kaiser Permanente research published today in *JAMA Pediatrics*.

"In this large and comprehensive study, we found that after [children](#) received an [autism](#) diagnosis, the rates of vaccination were significantly lower when compared with children of the same age who did not have an [autism diagnosis](#)," said lead author Ousseny Zerbo, PhD, postdoctoral fellow with the Kaiser Permanente Northern California Division of Research.

The retrospective matched cohort study, "Vaccination Patterns in Children After Autism Spectrum Disorder Diagnosis and in Their Younger Siblings," included more than 3,700 children with autism spectrum disorders diagnosed by 5 years of age, and nearly 500,000 children without ASD born between Jan. 1, 1995 and Sept. 30, 2010; and their respective [younger siblings](#), born between Jan. 1, 1997 and Sept. 30, 2014.

The researchers reviewed whether the children received vaccines recommended by the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices. The data were drawn from six sites participating in the CDC's Vaccine Safety Datalink: Kaiser Permanente locations in California, Colorado, Oregon and Washington, and Marshfield Clinic in Wisconsin.

"There were large disparities in vaccination rates between children with and without autism spectrum disorders, as well as between their siblings, across all age groups and after adjusting for important confounding factors," said senior author Nicola Klein, MD, PhD, director of the Kaiser Permanente Vaccine Study Center.

For example, among children aged 7 years or older, 94 percent of those without an ASD received all vaccines recommended between 4 and 6 years of age, compared with 82 percent of those with an ASD; and for the measles, mumps, rubella (or MMR) vaccine, 96 percent of those without an ASD were vaccinated, compared with 84 percent of those with an ASD.

In addition, the proportion of children who were fully vaccinated with the recommended vaccines was also lower among younger siblings of children with ASD compared with younger siblings of children without ASD. For example, for vaccines recommended between one and 11 months, 73 percent of younger siblings of children with ASD were fully vaccinated compared to 85 percent of younger siblings of children without ASD.

"Numerous scientific studies have reported no association between childhood vaccination and the incidence of autism spectrum disorders," said co-author Frank DeStefano, MD, MPH, Immunization Safety Office, Centers for Disease Control and Prevention. "Nonetheless, this new study suggests that many children with autism and their younger siblings are not being fully vaccinated.

"We need to better understand how to improve vaccination levels in children with [autism spectrum disorder](#) and their siblings, so they can be fully protected against [vaccine](#)-preventable diseases."

More information: *JAMA Pediatrics* (2018).

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Provided by Kaiser Permanente

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