

Risk of autism among younger siblings of a child with autism much greater than previously reported

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Autism Speaks, the world's largest autism science and advocacy organization, joined in announcing significant findings from the largest known study of younger siblings of children who had a verified diagnosis of autism spectrum disorder (ASD). This study, based on data from the Autism Speaks High Risk Baby Siblings Research Consortium (BSRC) and led by investigators from the UC Davis MIND Institute, was published online today in the journal *Pediatrics* and will appear in the September issue.

The "[Recurrence Risk for Autism Spectrum Disorders](#): A Baby Siblings Research Consortium Study" found that 19 percent of younger siblings of children with ASD developed autism, a rate significantly higher than the general population. If there were two children with ASD in the family, the risk of the third sibling developing ASD increased to more than 32 percent. The study found that the risk of an ASD diagnosis for male infants who had an older sibling with ASD was almost three times greater than the risk for female infants (26 percent compared to 9 percent). The study did not find any increase in risk associated with the gender of the older sibling, severity of the older sibling's symptoms, or other parent characteristics such as parental age, socio-economic status or race/ethnicity.

"By pulling together data from many investigators who are studying infant siblings of children with autism, these results offer a more accurate estimate of the recurrence rate for autism in siblings," says Autism Speaks Chief Science Officer Geraldine Dawson, Ph.D. "Surprisingly, the rate is much higher than previous estimates. This points to the important need for closely monitoring and screening siblings so that they can be offered intervention as early as possible to ensure the best possible outcome."

The study involved 664 infants from 12 U.S. and Canadian sites, evaluated as early as 6 months of age and followed until age 36 months. This study used gold standard diagnostic methods and comprehensive assessments by expert researchers, compared to prior studies based on more narrow diagnostic criteria.

"It has been well established that siblings of children with ASD are at higher risk for developing the disorder, but our estimates of the recurrence rate had been based on much smaller samples," explained Autism Speaks Director of Research for Environmental Sciences Alycia Halladay, Ph.D. who oversees the BSRC. "These findings emphasize the importance of family history as an autism risk factor that requires attention by parents and clinicians in tracking these infants from an early age to determine if the younger sibling develops ASD or a development disorder."

"It's important to recognize that these are estimates that are averaged across all of the families. So, for some families, the risk will be greater than 18.7 percent, and for other families it would be less than 18.7 percent," said Sally Ozonoff, Ph.D., professor of psychiatry and behavioral sciences at the MIND Institute and the study's lead author. "At the present time, unfortunately, we do not know how to estimate an individual family's actual risk."

The High Risk Baby [Siblings](#) Research Consortium, now engaging 25 scientists at 21 institutions in the U.S., Canada, Israel and the UK, is a partnership between Autism Speaks and the National Institutes of Health, led by the National Institute of Child Health & Human Development. Autism Speaks began funding baby sibling research in 1997 and has since committed over \$7 million to this project, both in scientific research and programmatic activities. Autism Speaks also provided funding to

authors Ozonoff and Young for this study.

Provided by Autism Speaks

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