

Autism Spectrum Disorder (ASD)

- ASD Homepage
- Facts +
- Screening & Diagnosis +
- Treatment
- Related Topics +
- Data & Statistics**
- Research & Tracking +
- Articles & Key Findings
- Free Materials
- Videos +
- My Story
- Information For Specific Groups +
- Links to Other Websites
- About Us


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- Media
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ASD Homepage

Data & Statistics

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- ### Prevalence
- About 1 in 68 children has been identified with autism spectrum disorder (ASD) according to estimates from CDC's Autism and Developmental Disabilities Monitoring (ADDM) Network. [\[Read article\]](#)
 - ASD is reported to occur in all racial, ethnic, and socioeconomic groups. [\[Read summary\]](#) [\[Read article\]](#)
 - ASD is almost 5 times more common among boys (1 in 42) than among girls (1 in 189). [\[Read article\]](#)
 - Studies in Asia, Europe, and North America have identified individuals with ASD with an average prevalence of about 1%. A study in South Korea reported a prevalence of 2.6%. [\[Data table\]](#) [\[Read article\]](#)
 - About 1 in 6 children in the United States had a developmental disability in 2006-2008, ranging from mild disabilities such as speech and language impairments to serious developmental disabilities, such as intellectual disabilities, cerebral palsy, and autism. [\[Read summary\]](#)

Identified Prevalence of Autism Spectrum Disorder
ADDM Network 2000-2010
Combining Data from All Sites

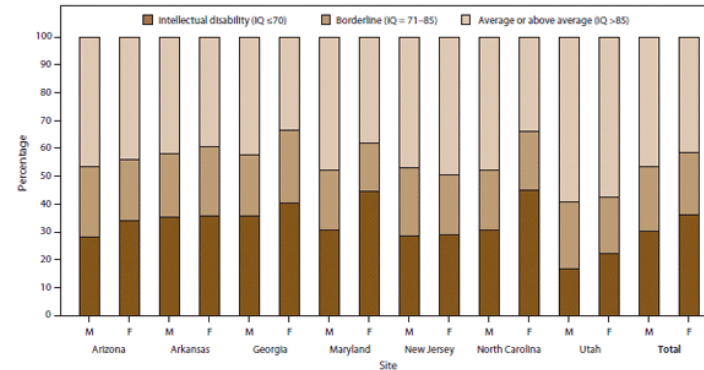
Surveillance Year	Birth Year	Number of ADDM Sites Reporting	Prevalence per 1,000 Children (Range)	This is about 1 in X children...
2000	1992	6	6.7 (4.5 - 9.9)	1 in 150
2002	1994	14	6.6 (3.3 - 10.6)	1 in 150
2004	1996	8	8.0 (4.6 - 9.8)	1 in 125
2006	1998	11	9.0 (4.2 - 12.1)	1 in 110
2008	2000	14	11.3 (4.8 - 21.2)	1 in 88
2010	2002	11	14.7 (4.3 - 15.1)	1 in 68

- [Learn more about prevalence of ASD >](#)
- [Learn more about the ADDM Network >](#)
- [Learn more about MADDSP >](#)

- ### Risk Factors and Characteristics
- Studies have shown that among identical twins, if one child has ASD, then the other will be affected about 36-95% of the time. In non-identical twins, if one child has ASD, then the other is affected about 0-31% of the time. [\[1-4\]](#)

- Parents who have a child with ASD have a 2%–18% chance of having a second child who is also affected.^[5,6]
- ASD tends to occur more often in people who have certain genetic or chromosomal conditions. About 10% of children with autism are also identified as having [Down syndrome](#), [fragile X syndrome](#), [tuberous sclerosis](#),^[7] or other genetic and chromosomal disorders.^[7-10]
- Almost half (46%) of children identified with ASD has average to above average intellectual ability. [\[Read article\]](#)

Most recent intelligence quotient (IQ) as of age 8 years among children identified with autism spectrum disorder (ASD) for whom test data were available,* by site and sex- Autism and Developmental Disabilities Monitoring Network, seven sites†, United States, 2010



Abbreviations: ASD = autism spectrum disorder; F = female; IQ = intelligence quotient; M = male.
 *Includes sites that had intellectual ability data available for >70% of children who met the ASD case definition.

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- Children born to older parents are at a higher risk for having ASD. [\[Read summary\]](#)
- A small percentage of children who are born prematurely or with low birth weight are at greater risk for having ASD. [\[Read summary\]](#)
- ASD commonly co-occurs with other developmental, psychiatric, neurologic, chromosomal, and genetic diagnoses. The co-occurrence of one or more non-ASD developmental diagnoses is 83%. The co-occurrence of one or more psychiatric diagnoses is 10%. [\[Read summary\]](#)

Diagnosis

- Research has shown that a diagnosis of autism at age 2 can be reliable, valid, and stable. [\[Read summary\]](#) [\[Read summary\]](#)
- On average, children identified with ASD were not diagnosed until after age 4, even though children can be diagnosed as early as age 2. When looking at age of first diagnosis by subtype, on average, those children were diagnosed with Autistic Disorder at age 4, Pervasive Developmental Disorder-Not Otherwise Specified at age 4 years and 2 months, and Asperger Disorder at age 6 years and 2 months. [\[Read article\]](#)
- Studies have shown that parents of children with ASD notice a developmental problem before their child's first birthday. Concerns about vision and hearing were more often reported in the first year, and differences in social, communication, and fine motor skills were evident from 6 months of age. [\[Read summary\]](#) [\[Read summary\]](#)

Economic Costs

- It is estimated to cost at least \$17,000 more per year to care for a child with ASD compared to a child without ASD. Costs include health care, education, ASD-related therapy, family-coordinated services, and caregiver time. For a child with more severe ASD, costs per year increase to over \$21,000. Taken together, it is estimated that total societal costs of caring for children with ASD were over \$9 billion in 2011. [\[Read article\]](#)
- Children and adolescents with ASD had average medical expenditures that exceeded those without ASD by \$4,110–\$6,200 per year. On average, medical expenditures for children and adolescents with ASD were 4.1–6.2 times greater than for those without ASD. Differences in median expenditures ranged from \$2,240 to \$3,360 per year with median expenditures 8.4–9.5 times greater. [\[Read article\]](#)
- In 2005, the average annual medical costs for Medicaid-enrolled children with ASD were \$10,709 per child, which was about six times higher than costs for children without ASD (\$1,812). [\[Read summary\]](#)
- In addition to medical costs, intensive behavioral interventions for children with ASD cost \$40,000 to \$60,000 per child per year.^[11]

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Glossary

Prevalence is the number of people in a population that have a condition relative to all of the people in the population. Prevalence is typically shown as a percent (e.g. 1%) or a proportion (e.g. 1 in 100).

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