

# Children with autism more likely to have handwriting problems

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Children with autism may have lower quality handwriting and trouble forming letters compared to children without autism, according to a study published in the November 10, 2009, print issue of *Neurology*, the medical journal of the American Academy of Neurology.

The study included 28 [children](#) between the ages of eight and 13. Half of the children had [autism spectrum disorder](#). The other half had no developmental, psychiatric or [brain disorders](#). All of the children scored within the normal range for perceptual reasoning on an IQ test.

The children were given the Minnesota [Handwriting](#) Assessment Test, which uses a scrambled sentence to eliminate any speed advantage for more fluent readers. The sentence used on the test was "the brown jumped lazy fox quick dogs over." Participants were asked to copy the words in the sentence, making the letters the same size and shape as the sample using their best handwriting. The handwriting was scored based on five categories: legibility, form, alignment, size and spacing. The children's motor skills, including balance and timed movements, were also examined and given a rating.

The research found that half of the children with autism earned less than 80 percent of the total possible points on the handwriting assessment, compared to only one child in the group without autism. In addition, nine of the 14 children with autism scored below 80 percent on the form category of the handwriting assessment, compared to only two of the 14 children without autism.

"Our results suggest that therapies targeting motor skills may help improve handwriting in children with autism, which is important for success in school and building self-esteem," said study author Amy Bastian, PhD, of the Kennedy Krieger Institute and Johns Hopkins School of Medicine in Baltimore, MD. "Such therapies could include training of letter formation and general training of fine motor control to help improve the quality of their writing."

While overall quality of handwriting was worse in children with autism spectrum disorders, they were still able to align, space and size their letters just as well as children without [autism](#).

Source: American Academy of Neurology ([news](#) : [web](#))

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