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# Association Between Screen Time Exposure in Children at 1 Year of Age and Autism Spectrum Disorder at 3 Years of Age: The Japan Environment and Children's Study

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## Abstract

**Importance:** It is unclear to what extent the duration of screen time in infancy is associated with the subsequent diagnosis of autism spectrum disorder.

**Objective:** To examine the association between screen time in infancy and the development of autism spectrum disorder at 3 years of age.

**Design, setting, and participants:** This cohort study analyzed data from mother-child dyads in a large birth cohort in Japan. This study included children born to women recruited between January 2011 and March 2014, and data were analyzed in December 2020. The study was conducted by the Japan Environment and Children's Study Group in collaboration with 15 regional centers across Japan.

**Exposures:** Screen time at 1 year of age.

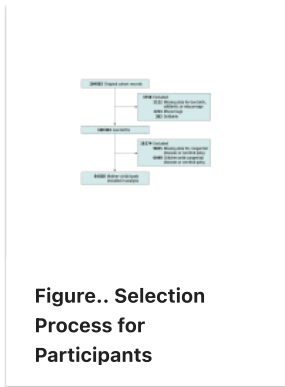
**Main outcomes and measures:** The outcome variable, children diagnosed with autism spectrum disorder at 3 years of age, was assessed using a questionnaire administered to mothers of the participating children.

**Results:** A total of 84 030 mother-child dyads were analyzed. The prevalence of children with autism spectrum disorder at 3 years of age was 392 per 100 000 (0.4%), and boys were 3 times more likely to have been diagnosed with autism spectrum disorder than were girls. Logistic regression analysis showed that among boys, when "no screen" was the reference, the adjusted odds ratios were as follows: less than 1 hour, odds ratio, 1.38 (95 % CI, 0.71-2.69; P = .35), 1 hour to less than 2 hours, odds ratio, 2.16 (95 % CI, 1.13-4.14; P = .02), 2 hours to less than 4 hours, odds ratio, 3.48 (95 % CI, 1.83-6.65; P < .001), and more than 4 hours, odds ratio, 3.02 (95 % CI, 1.44-6.34; P = .04). Among girls, however, there was no association between autism spectrum disorder and screen time.

**Conclusions and relevance:** Among boys, longer screen time at 1 year of age was significantly associated with autism spectrum disorder at 3 years of age. With the rapid increase in device usage, it is necessary to review the health effects of screen time on infants and to control excessive screen time.

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## Figures



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Kushima M, Yamagata Z.

JAMA Pediatr. 2022 Aug 1;176(8):825. doi: 10.1001/jamapediatrics.2022.1513.

PMID: 35604655 No abstract available.

### [Screen Timing May Be More Likely Than Screen Time to Be Associated With the Risk of Autism Spectrum Disorder.](#)

Lin YH, Lin SH, Gau SS.

JAMA Pediatr. 2022 Aug 1;176(8):824-825. doi: 10.1001/jamapediatrics.2022.1516.

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