

ABSTRACT:

## **Growth in stature and head circumference in high-functioning autism and Asperger disorder during the first 3 years of life**

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Little effort has been made to characterize the developmental anatomic phenotype of autism; although there is evidence of an increased head circumference and brain size, few other physical characteristics have been studied. The head circumference, body length-height, and weight measurements of infants, who were later diagnosed with high-functioning autism (HFA) and Asperger disorder (AsD) were extracted from health records over the first 3 years of life and compared to the measurements of a matched normal control group. Using linear mixed-effects models, no differences were found in the average growth rate for head circumference, stature, or weight between the children with HFA and AsD. However, a significantly higher growth rate in body length-height and weight was found for the combined group of children with HFA and AsD compared to the normal control group. A trend toward higher growth rate in head circumference was also found among the former group. The results indicate that growth dysregulation in autism is not specific to the brain but also involves growth in stature.

Keywords: developmental anatomic phenotype of autism; head circumference; brain size; weight measurements of infants; high-functioning autism (HFA); Asperger disorder (AsD); growth rate; growth dysregulation

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