

Objective Children with *autism* are known to have larger head circumferences; whether they are above average in height and weight is less clear. Moreover, little is known about growth-related hormone levels in children with *autism*. We investigated whether children with *autism* were taller and heavier, and whether they had higher levels of growth-related hormones than control children did. Design A case-control study design was employed. Patients Boys with *autism* spectrum disorder (ASD) or *autism* (n = 71) and age-matched control boys (n = 59) were evaluated at Cincinnati Children's Hospital. Measurements Height, weight and head circumference were measured. Blood samples were assayed for IGF-1 and 2, IGFBP-3, growth hormone binding protein (GHBP) and for dehydroepiandrosterone (DHEA) and DHEA sulphate (DHEAS). Results Subjects with *autism*/ASD had significantly (P = 0.03) greater head circumferences (mean z-score 1.24, SD 1.35) than controls (mean z-score 0.78, SD 0.93). Subjects with *autism* also had significantly (P = 0.01) greater weights (mean z-score 0.91, SD 1.13) than controls (mean z-score 0.41, SD 1.11). Height did not differ significantly between groups (P = 0.65); subjects with *autism*/ASD had significantly (P = 0.003) higher body mass indices (BMI) (mean z-score 0.85, SD 1.19) than controls (mean z-score 0.24, SD 1.17). Levels of IGF-1, IGF-2, IGFBP-3 and GHBP in the group with *autism*/ASD were all significantly higher (all P ≤ 0.0001) than in controls. Conclusions Children with *autism*/ASD had significantly higher levels of many growth-related hormones: IGF-1, IGF-2, IGFBP-3 and GHBP. These findings could help explain the significantly larger head circumferences and higher weights and BMIs seen in these subjects. Future studies should examine the potential role of growth-related hormones in autism/ASD.

<http://web.ebscohost.com/ehost/detail?vid=3&hid=102&sid=aa042d83-f511-48fc-9a28-dac955623fb4%40sessionmgr7>