

Neurological changes during the transition from adolescence to young adulthood found in autism spectrum disorder

June 11 2015

A study published in the June 2015 issue of the *Journal of the American Academy of Child and Adolescent Psychiatry* demonstrates that the atypical trajectory of cortical/brain development in autism spectrum disorder (ASD) extends well beyond young childhood and into late adolescence and young adulthood.

A considerable amount of work has focused on early structural brain development in ASD utilizing [magnetic resonance imaging](#) (MRI). This body of work has revealed evidence for brain overgrowth during the early postnatal years that appears largely absent later in development in ASD. Although several studies of cortical brain structure in adolescence and young adulthood in ASD have been completed, the vast majority has utilized cross-sectional (i.e., one point in time) designs. In one of the first studies to examine longitudinal (i.e., following the same subjects over time) cortical development in ASD during late adolescence and early adulthood, researchers found an exaggeration of the normal thinning of the cortex that occurs during this age range.

Moreover, this increased cortical thinning was associated with greater executive function problems (based on behavioral ratings) and ASD social symptoms. This study suggests that the atypical trajectory of cortical/brain development in ASD extends well beyond young childhood and into late adolescence and [young adulthood](#). More work is needed to understand brain development during the transition from

adolescence into adulthood and beyond.

More information: "Longitudinal Cortical Development During Adolescence and Young Adulthood in Autism Spectrum Disorders: Increased Cortical Thinning but Comparable Surface Area Changes." *Journal of the American Academy of Child and Adolescent Psychiatry*, Volume 54, Issue 6 (June 2015) [dx.doi.org/10.1016/j.jaac.2015.03.007](https://doi.org/10.1016/j.jaac.2015.03.007)

Provided by Elsevier

Citation: Neurological changes during the transition from adolescence to young adulthood found in autism spectrum disorder (2015, June 11) retrieved 9 April 2024 from <https://medicalxpress.com/news/2015-06-neurological-transition-adolescence-young-adulthood.html>

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