

2023 Study Examines Timing of Puberty in Adolescent Females with ADHD

Research Spotlights highlight scientific research focused on girls and women with ADHD and inform non-scientists about the research process. This Spotlight breaks down “[Pubertal timing in adolescents with ADHD: extension and replication in an all-female sample](#),” published in May 2023.

Study Goals

- To compare the ages at which girls with and without ADHD go through puberty
- To see if stimulant medication use among girls with ADHD predicted differences in the timing of pubertal changes

What is already known about the topic?

- Previous work looking at pubertal timing in children with and without ADHD did not look at sex differences (i.e., differences between *girls* with and without ADHD separately from differences between *boys* with and without ADHD).
- Girls go through many pubertal changes 1-2 years earlier than boys (e.g., growth spurt, development of acne, etc.)
- The average age of first menstruation (period) in girls in the US is about 12.1 years old.
- Differences in pubertal timing are related to mental and physical health outcomes. For example, early puberty is linked to higher levels of anxiety and depression symptoms and risky sexual behavior. *Note: This refers to teens on average and does not mean this is true for any specific teen.*

How was this study done?

- 127 girls diagnosed with ADHD in childhood and 82 of their peers without ADHD completed questionnaires and study tasks as part of the [Berkeley Girls with ADHD Longitudinal Study \(BGALS\)](#). Study visits occurred when girls were 6-12 years old and again at 11-18 years old.
- As teens, girls were asked about the degree of their breast and pubic hair growth using a standardized measure of pubertal development. Girls were also asked if they had ever had their period and the age at which they had their first period.
- Data on history of taking stimulant medication for ADHD was also collected.
- Researchers looked at differences in pubertal timing and physical development between girls with vs. without ADHD and girls with ADHD who had vs. had not taken stimulants.

What were the study's findings?

- Girls with and without ADHD went through puberty (i.e., first period and physical maturation) at similar ages.
- Girls with ADHD who had taken stimulants before their first period were similar in breast and pubic hair maturation (for their age) compared to those who had not taken stimulants.
- Girls with ADHD who had taken stimulants got their first period slightly later than those with ADHD who had not taken stimulants before their first period (12.4 years old vs. 11.9 years old). Both groups' average age at first period were within the normal range for girls in the U.S.
- Note: this does **not** mean that stimulants caused this difference in period timing. There could be many explanations for this difference between those who did and did not take stimulants (such as in weight, stimulant prescription and use among racial and ethnic groups, etc.).

Terms to know

Pubertal Timing: When adolescents mature physically (e.g., develop breasts, pubic hair, get their first period) compared to other youth of the same age and sex.

Puberty: A set of physical, biological, and hormonal changes in the body that occur during adolescence. In girls, this includes breast maturation, growth of pubic hair, skin changes (acne), a growth spurt, and menstruation (menstrual period).



Why are these findings important?

- These findings shed light on how teenage girls with ADHD experience puberty.
 - Additional research is needed to confirm these findings before any firm recommendations can be made regarding different treatment approaches for teenage girls with ADHD.
- There are several general tips for supporting females with ADHD who are going through puberty:
 - Remember all children experience many changes during adolescence—physical (puberty), social (with friendships), emotional, and in other areas as well
 - Be aware of when teens are going through these changes to help them navigate these transitions successfully
 - Given that females with ADHD often have more difficulties around times of transition, consider partnering with professionals—such as medical and mental health providers, teachers, and coaches—to ensure that your teen receives the support they need during this developmental stage.
 - Explore helpful resources around puberty such as *The New Puberty* by Juliana Dearnorff and *You-ology: A Puberty Guide for Every Body* by Melisa Holmes, Trish Hutchison, and Kathryn Lowe

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