

ADHD in women: Implications for treatment in the perinatal period

Key facts

- ADHD is one of the most common neurodevelopmental disorders, and symptoms typically extend across the lifespan.¹
- Untreated or unmanaged ADHD symptoms are associated with a range of impairments in adulthood and during the perinatal period, including higher rates of unplanned pregnancies², poorer prenatal health,³ and increased birth complications⁴.
- As more adult women are receiving ADHD diagnoses, many are seeking support for managing their symptoms during preconception and the perinatal period (i.e., pregnancy and postpartum).

Note: In this document, the term “woman” is intended to include all people who identify as female or were assigned female at birth.

Background

What is ADHD?⁵

- A brain-based disorder that is characterized by levels of inattention and/or hyperactivity/impulsivity that are greater than what would be expected for a person’s age or developmental level.
- For individuals aged 17 years and older to meet criteria for ADHD, a person must exhibit at least 5 symptoms of inattention or hyperactivity/impulsivity.
- Several symptoms must have been present in childhood (i.e., younger than age 12).
- Symptoms must be persistent for at least 6 months and occur across multiple settings.
- Symptoms cannot be better explained by other factors, such as another mental health condition (e.g., depression, anxiety, psychosis, etc.).
- To meet criteria for an ADHD diagnosis, symptoms must be associated with functional impairment. ADHD can contribute to a range of significant challenges including social and emotional difficulties, academic underachievement, financial hardships⁶, employment challenges⁷, and premature death⁸.

See next page for list of symptoms.

ADHD symptoms

⚡ Inattention

- Trouble paying attention to details/makes careless mistakes
- Trouble sustaining attention
- Seems to not be listening
- Trouble following instructions/finishing tasks
- Difficulty organizing
- Avoiding tasks that require concentration
- Losing materials
- Easily distracted
- Forgetful

⚡ Hyperactivity and impulsivity

- Fidgeting
- Trouble staying seated when expected
- Often feeling or seeming restless
- Trouble engaging in tasks quietly
- “On the go” or “driven by a motor”
- Talking excessively
- Blurts out answers to questions before they are completed
- Trouble waiting turn
- Interrupting/intruding on others

What does ADHD look like in women?

ADHD criteria and considerations for women

Atypical levels of inattention, hyperactivity, and/or impulsivity that have been present for at least 6 months

- Women are more likely to present with symptoms of inattention rather than hyperactive and impulsive behaviors.⁹
- Women may show more hyperv verbal behavior than hyperactive behavior.¹⁰
- There is some emerging evidence that hormones may impact symptom expression; for example, in response to fluctuating steroids across the menstrual cycle.¹¹

Several symptoms of ADHD present in childhood (i.e., younger than age 12)

- Symptoms might not become apparent in women until around puberty.¹²

Symptoms present in at least two settings

- Women often “mask” or hide their ADHD symptoms from others.¹³
- Women frequently develop extensive coping strategies to cover up symptoms around others.¹⁴

Symptoms significantly impact functioning.

Compared to women without ADHD:

- Women with ADHD are more likely to experience pregnancy as teenagers and have significantly greater rates of unplanned pregnancies.¹⁵
- Women with ADHD are 5 times more likely to experience intimate partner victimization.¹⁶
- Women with a childhood history of ADHD are twice as likely to have engaged in self-harm and are at significantly higher risk for attempting suicide.¹⁷

Symptoms are not better explained by another condition

- Women with ADHD are more likely to experience mood and anxiety concerns¹⁸, which can make it especially hard to parse the potential contribution of ADHD from these symptoms.
- At least some difficulty with attention or behavior should have been present prior to a significant life change, such as pregnancy.

ADHD in the perinatal period

What do ADHD symptoms look like for perinatal patients?

- Hormonal, physical, and emotional changes during the perinatal period may impact the presentation of ADHD symptoms. ADHD symptoms can be hard to distinguish from other mental health or neurodevelopmental conditions that often co-occur with ADHD, or from life experiences such as pregnancy. Additionally, female ADHD patients may be more likely to experience premenstrual dysphoric disorder (PMDD) and postpartum depression after first childbirth.¹⁹
- Perinatal patients may also describe symptoms that sound like ADHD but are better attributed to other disorders. Having the symptoms and experiences associated with ADHD does not necessarily mean someone meets criteria but may indicate that further evaluation is warranted.

Symptom comparison

Note: The descriptions provided in the table below are general and may not apply to a person's individual experience or the presentation of the condition at all times. The table does not include all conditions and experiences that might overlap with ADHD.

Symptoms/experiences	ADHD ²⁰	Autism Spectrum Disorder ²¹	Depression ²²	Anxiety ²³	Bipolar Disorder ²⁴	"Normal" psychological changes in peripartum ²⁵
Difficulty completing daily tasks	Often	Sometimes	Often	Sometimes	Sometimes	Sometimes
Trouble concentrating during different activities	Often	Sometimes	Often	Often	Often	Sometimes
Easily distracted and trouble getting back on track	Often	Sometimes	Sometimes	Sometimes	Sometimes	Sometimes
Frequently fidgeting or moving their body	Often	Sometimes	Sometimes	Sometimes	Sometimes	Rarely
Often forgetting steps in daily routines or information that they have been told	Often	Rarely	Sometimes	Rarely	Sometimes	Sometimes
Often engaging in risk-taking behavior	Often	Rarely	Sometimes	Rarely	Very often	Rarely
Often irritable or easily frustrated	Sometimes	Sometimes	Often	Often	Often	Sometimes
Changes in appetite or weight	Sometimes	Rarely	Very often	Sometimes	Very often	Very often
Frequently feeling guilty, worthless, or helpless	Sometimes	Rarely	Very often	Sometimes	Very often	Rarely
Thinking a lot about death or dying	Rarely	Rarely	Often	Sometimes	Often	Rarely
Experiencing worry about upcoming events	Rarely	Rarely	Rarely	Very often	Rarely	Often
Feeling prolonged periods of sadness, emptiness, or hopelessness	Rarely	Rarely	Very often	Sometimes	Often	Rarely
Significant change in energy from person's typical level	Rarely	Rarely	Very often	Rarely	Very often	Very often
Changes in sleep quality, patterns, or habits	Rarely	Rarely	Very often	Often	Very often	Very often

How can I determine whether further evaluation for ADHD is warranted?

- Disparities in the diagnosis and treatment of people with ADHD have been well-documented, attributed in part to teacher and clinician biases, racism, social determinants of health and equitable access to resources, and stigma.²⁶
- Providers can help address this by talking with their patients about their attention and/or behavioral concerns and may consider using some of the questions below to better understand the timeline and frequency of symptoms, particularly in the context of the perinatal period.
- The screening tools and questions listed below can help guide conversations and gather additional information. You may determine that further assessment for ADHD is needed.

Tools for screening



Self-report screening of ADHD symptoms during adulthood: Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist
add.org/wp-content/uploads/2015/03/adhd-questionnaire-ASRS111.pdf



Screening of ADHD symptoms observed by someone who knows the patient well (e.g., partner, family member, friend, colleague, etc.): Adult Observer ADHD Questionnaire
mindooasis.com.au/wp-content/uploads/2021/01/Adult-ADHD-Questionnaire-For-observer.pdf



Self-report measure of childhood ADHD symptoms: Wender Utah Rating Scale for the Attention Deficit Hyperactivity Disorder
mcstap.com/docs/wender.pdf



Measure of childhood ADHD symptoms by someone who knew the patient well at that time: Wender Utah Rating Scale—Observer Rating
mindooasis.com.au/wp-content/uploads/2021/01/Adult-ADHD-Questionnaire-For-observer.pdf
(scroll to page 6)



Rating scale of how ADHD symptoms may impact aspects of life: Weiss Functional Impairment Rating Scale
caddra.ca/wp-content/uploads/WFIRS-S.pdf

Who can conduct an ADHD evaluation?

- If you or your patient is wondering whether you might have ADHD as an adult, the evaluation process often starts with your primary care provider (PCP). PCPs can begin an initial assessment and refer to a mental health professional such as a psychologist or psychiatrist for a more comprehensive evaluation, which is often needed for a first-time diagnosis in adulthood.
- To better understand the types of professionals who can diagnose and treat ADHD, the **Duke Center for Girls & Women with ADHD** offers a helpful **guide**. Visit the Center website at adhdgirlsandwomen.org, and read the the guide at adhdgirlsandwomen.org/wp-content/uploads/2024/02/Infographic_WhosWhoFINAL.pdf
- For help finding local professionals, the **Children and Adults with ADHD (CHADD) resource directory** is a great resource: chadd.org/professional-directory/?letter_sort=j¤t_page=1. You can also look for local professionals through the CHADD provider directory.
- If you're pregnant or recently postpartum and exploring an ADHD diagnosis, additional guidance is available through the University of Washington's Perinatal Psychiatry Center at perc.psychiatry.uw.edu/wp-content/uploads/2024/06/Perinatal-ADHD-Care-Guide.pdf. Providers can also consult the Perinatal Psychiatry Consultation Line (PPCL) for support: perc.psychiatry.uw.edu/perinatal-pcl.

Treating ADHD in perinatal patients

Can ADHD medication be initiated or continued during pregnancy and lactation?

- There is little evidence that the use of ADHD medications as prescribed increases risk to a fetus in a clinically meaningful way.²⁷ That said, all psychotropic medications will cross the placenta, be present in amniotic fluid, and enter breast milk.²⁸
- Choosing to initiate, discontinue, or forgo medication should result from shared decision-making with the patient, who is informed of the risks of both treating and choosing not to treat their symptoms. Our priority is to help our patients maintain mental health stability and functioning.²⁹
- Preliminary research suggests that discontinuing psychostimulants during pregnancy increases risk for depressive symptoms and impaired family functioning.³⁰ Discontinuing a medication that is beneficial prior to or early in their pregnancy may put the person, their family unit, and pregnancy at greater risk for a negative outcome than continuing to treat the person for their ADHD symptoms.
- The lowest, most effective dose should always be used.³¹

Need support with medications for your pregnant or postpartum patients?

Contact the **Perinatal Psychiatry Consultation Line (Perinatal PCL)** — a free, state-funded resource for Washington providers.

Get expert mental health consultation, medication recommendations, and referrals for perinatal patients.

 **Call:** 877-725-4666 (Available Mon–Fri, 9 AM–5 PM, closed UW holidays)

 **Schedule a consult:** perinatalpcl.as.me/schedule.php

 **Email:** ppcl@uw.edu

 **Learn more:** perc.psychiatry.uw.edu/perinatal-pcl

Alternative treatments (non-pharmacological)

Psychotherapy

- **Cognitive Behavioral Therapy (CBT) for Adults with ADHD:** an evidence-based therapy³² that helps people change unhelpful ways of thinking that might be affecting their thoughts, actions, or overall wellbeing. It also teaches skills that help manage some of the problems that can come with ADHD, like trouble with time management, staying organized, and planning ahead.
- **Mindfulness for Adults with ADHD:** a method that does not have as much research behind it as CBT, but has been shown to help manage ADHD symptoms, stress, depression, and anxiety by helping people develop skills to help their mind stay focused on the present.³³

Support groups

- **Postpartum Support International (PSI)** offers a virtual support group for pregnant and postpartum moms and birthing people with a diagnosis of ADHD. Learn more: postpartum.net/get-help/psi-online-support-meetings
- **Attention Deficit Disorder Association (ADDA)** offers virtual peer support groups and work groups. Learn more: add.org/adda-virtual-programs
- **Children and Adults with ADHD (CHADD)** has local support groups for individuals with ADHD. Learn more: chadd.net

Organizational support

- **ADHD coaching:** these professionals offer practical advice and help people with ADHD learn skills to stay organized, manage their time, and set goals.
- **Professional organizer/house manager:** these professionals can help with getting your home tidy/organized, creating easy-to-follow routines, and helping you to remember important tasks.
- **“Body-doubling”/accountability buddy:** having another person around while you work can make it easier to stay focused and get things done.

Digital interventions

- **ADHD apps:** there are several mobile apps available that can help with time management, reducing distractions, improving sleep, and organizing information. Find a comprehensive list at additudemag.com.

Self-care

- Engaging in self-care and doing things to reduce stress can help with ADHD symptoms and make it easier to get things done. You might try exercising, healthy eating, connecting with friends, spending time outside, getting good sleep, and resting.

Research and additional guidance

- **“ADHD, Pregnancy, and Motherhood: A Practical Guide for Hopeful Parents”** ADDitude webinar from 5/11/2023. Watch webinar: additudemag.com/webinar/adhd-pregnancy-transition-to-motherhood/
- **Duke Center for Girls & Women with ADHD:** a specialized center within the Duke ADHD Program dedicated to advancing knowledge about Attention-Deficit/ Hyperactivity Disorder (ADHD) in girls and women. Learn more: adhdgirlsandwomen.org
- **Massachusetts General Hospital (MGH) Center for Women’s Mental Health:** evidence-based resources to help patients and their providers learn about new research in women’s mental health so they can make good decisions together about care. Learn more: womensmentalhealth.org

Additional provider resources

Free provider consultations

Perinatal Psychiatry Consultation Line for Providers (Perinatal PCL) (Washington)

Perinatal PCL is a free, state-funded program providing perinatal mental health consultation, recommendations and referrals for Washington state providers caring for pregnant or postpartum patients.

 **Consultations** available on demand during business hours (9 am- 5 pm, Monday-Friday, closed for UW holidays), or schedule a consultation at: perinatalpcl.as.me/schedule.php.

 **Call:** 877-725-4666

 **Email:** ppcl@uw.edu

 **Website:** perc.psychiatry.uw.edu/perinatal-pcl/

Information on medication use during pregnancy and infant feeding

Mother to Baby

- Fact sheets on perinatal exposures to share with patients
- Chat with an exposure expert, enroll your patient in observational studies, or schedule a patient consult
- Website: mothertobaby.org

Infant Risk Center at Texas Tech University Health Sciences

- InfantRisk App where healthcare providers can access information on medication safety during pregnancy and breastfeeding
- Free call center for patients to discuss their questions with experienced nurses
- Website: infantrisk.com

Lactmed

- Database on exposure of drug and chemicals to which a breast/chest-feeding parent may be exposed
- Website: ncbi.nlm.nih.gov/books/NBK501922

Massachusetts General Hospital (MGH) Center for Women's Mental Health

- Weekly blog summarizing recent publications in women's mental health
- Free virtual grand rounds and live online courses for providers
- Website: womensmentalhealth.org



References

- 1** Centers for Disease Control and Prevention. (n.d.). About attention-deficit / hyperactivity disorder (ADHD). Retrieved July 1, 2024, from <https://www.cdc.gov/adhd/about/>.
- 2** Owens, E. B., & Hinshaw, S. P. (2019). Adolescent mediators of unplanned pregnancy among women with and without childhood ADHD. *Journal of Clinical Child & Adolescent Psychology*.
- 3** Murray, A. L., Taut, D., Baban, A., Hemady, C. L., Walker, S., Osafo, J., ... & Eisner, M. (2022). Associations between ADHD symptoms and maternal and birth outcomes: An exploratory analysis in a multi-country cohort of expectant mothers. *Journal of Attention Disorders*, 26(14), 1882-1894.
- 4** Walsh, C. J., Rosenberg, S. L., & Hale, E. W. (2022). Obstetric complications in mothers with ADHD. *Frontiers in reproductive health*, 4, 1040824.
- 5** American Psychiatric Association. (2013). *Neurodevelopmental disorders. Diagnostic and statistical manual of mental disorders*.
- 6** Matza, L. S., Paramore, C., & Prasad, M. (2005). A review of the economic burden of ADHD. *Cost effectiveness and resource allocation*, 3, 1-9.
- 7** Franke, B., Michelini, G., Asherson, P., Banaschewski, T., Bilbow, A., Buitelaar, J. K., ... & Reif, A. (2018). Live fast, die young? A review on the developmental trajectories of ADHD across the lifespan. *European Neuropsychopharmacology*, 28(10), 1059-1088.
- 8** Ruiz-Goikoetxea, M., Cortese, S., Aznarez-Sanado, M., Magallon, S., Zallo, N. A., Luis, E. O., ... & Arrondo, G. (2018). Risk of unintentional injuries in children and adolescents with ADHD and the impact of ADHD medications: a systematic review and meta-analysis. *Neuroscience & Biobehavioral Reviews*, 84, 63-71.
- 9** Babinski, D. E. (2024). Sex differences in ADHD: review and priorities for future research. *Current psychiatry reports*, 26(4), 151-156.
- 10** Hinshaw, S. P., Nguyen, P. T., O'Grady, S. M., & Rosenthal, E. A. (2022). Annual Research Review: Attention deficit / hyperactivity disorder in girls and women: underrepresentation, longitudinal processes, and key directions. *Journal of Child Psychology and Psychiatry*, 63(4), 484-496.
- 11** Roberts, B., Eisenlohr-Moul, T., & Martel, M. M. (2018). Reproductive steroids and ADHD symptoms across the menstrual cycle. *Psychoneuroendocrinology*, 88, 105-114.
- 12** Chronis-Tuscano, A., Molina, B. S., Pelham, W. E., Applegate, B., Dahlke, A., Overmyer, M., & Lahey, B. B. (2010). Very early predictors of adolescent depression and suicide attempts in children with attention-deficit/hyperactivity disorder. *Archives of general psychiatry*, 67(10), 1044-1051.
- 13** Young, S., Adamo, N., Ásgeirsdóttir, B. B., Branney, P., Beckett, M., Colley, W., ... & Woodhouse, E. (2020). Females with ADHD: An expert consensus statement taking a lifespan approach providing guidance for the identification and treatment of attention- deficit/ hyperactivity disorder in girls and women. *BMC psychiatry*, 20, 1-27.
- 14** Skoglund, C., Kallner, H. K., Skalkidou, A., Wikström, A. K., Lundin, C., Hesselman, S., ... & Poromaa, I. S. (2019). Association of attention-deficit / hyperactivity disorder with teenage birth among women and girls in Sweden. *JAMA network open*, 2(10), e1912463-e1912463.
- 15** Owens, E. B., Zalecki, C., Gillette, P., & Hinshaw, S. P. (2017). Girls with childhood ADHD as adults: Cross-domain outcomes by diagnostic persistence. *Journal of consulting and clinical psychology*, 85(7), 723.
- 16** Guendelman, M. D., Ahmad, S., Meza, J. I., Owens, E. B., & Hinshaw, S. P. (2016). Childhood attention-deficit/hyperactivity disorder predicts intimate partner victimization in young women. *Journal of abnormal child psychology*, 44, 155-166.
- 17** Meza, J. I., Owens, E. B., & Hinshaw, S. P. (2021). Childhood predictors and moderators of lifetime risk of self-harm in girls with and without attention-deficit / hyperactivity disorder. *Development and psychopathology*, 33(4), 1351-1367.
- 18** Tung I, Li JJ, Meza JI, Jezior KL, Kianmahd JSV, Hentschel PG, O'Neil PM, Lee SS. Patterns of Comorbidity Among Girls With ADHD: A Meta-analysis. *Pediatrics*. 2016;138(4):e20160430.
- 19** Dorani, F., Bijlenga, D., Beekman, A. T., van Someren, E. J., & Kooij, J. S. (2021). Prevalence of hormone-related mood disorder symptoms in women with ADHD. *Journal of psychiatric research*, 133, 10-15.)
- 20** National Institute of Mental Health. (2023, September). Attention-Deficit/Hyperactivity Disorder. U.S. Department of Health and Human Services, National Institutes of Health. Retrieved February 8, 2024, from <https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/>.

- 21** National Institute of Mental Health. (2023, February). Autism Spectrum Disorder. U.S. Department of Health and Human Services, National Institutes of Health. Retrieved February 8, 2024, from <https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd/>.
- 22** National Institute of Mental Health. (2023, September). Depression. U.S. Department of Health and Human Services, National Institutes of Health. Retrieved November 13, 2023, from <https://www.nimh.nih.gov/health/topics/depression/>.
- 23** National Institute of Mental Health. (2023, April). Anxiety Disorders. U.S. Department of Health and Human Services, National Institutes of Health. Retrieved February 8, 2024, from <https://www.nimh.nih.gov/health/topics/anxiety-disorders/>.
- 24** National Institute of Mental Health. (2022, September). Bipolar Disorder. U.S. Department of Health and Human Services, National Institutes of Health. Retrieved
- 25** Bjelica, A., Cetkovic, N., Trninic-Pjevic, A., & Mladenovic-Segedi, L. (2018). The phenomenon of pregnancy—A psychological view. *Ginekologia polska*, 89(2), 102-106.
- 26** Zhao, X., Hayes, T., Timmons, A. C., Wu, W., & Frazier, S. L. (2023). Unpacking inequities in ADHD diagnosis: examining individual-level race/ethnicity and state-level online information-seeking patterns. *Administration and Policy in Mental Health and Mental Health Services Research*, 50(4), 576-590.
- 27** Scoten, O., Katarina, T. A. B. I., Paquette, V., Carrion, P., Deirdre, R. Y. A. N., Radonjic, N. V., ... & Hippman, C. (2024). Attention-Deficit/Hyperactivity Disorder in pregnancy and the postpartum period. *American Journal of Obstetrics and Gynecology*.
- 28** Armstrong, C. (2008). ACOG guidelines on psychiatric medication use during pregnancy and lactation. *American Family Physician*, 78(6), 772-778.
- 29** MGH Center for Women's Mental Health. (2021, January 20). Essential reads: More data on ADHD medications and Pregnancy. Retrieved February 8, 2024, from <https://womensmentalhealth.org/posts/adhd-pregnancy-essential-reads/>.
- 30** Baker, A. S., Wales, R., Noe, O., Gaccione, P., Freeman, M. P., & Cohen, L. S. (2022). The course of ADHD during pregnancy. *Journal of Attention Disorders*, 26(2), 143-148.
- 31** Kimmel, M. C., Cox, E., Schiller, C., Gettes, E., & Meltzer-Brody, S. (2018). Pharmacologic treatment of perinatal depression. *Obstetrics and gynecology clinics*, 45(3), 419-440.
- 32** Safren, S. A., Sprich, S., Mimiaga, M. J., Surman, C., Knouse, L., Groves, M., & Otto, M. W. (2010). Cognitive behavioral therapy vs relaxation with educational support for medication-treated adults with ADHD and persistent symptoms: a randomized controlled trial. *Jama*, 304(8), 875-880.
- 33** Cairncross, M., & Miller, C. J. (2020). The effectiveness of mindfulness-based therapies for ADHD: A meta-analytic review. *Journal of attention disorders*, 24(5), 627-643.