



Care at
Mayo Clinic ▼

Health
Library ▼

For Medical
Professionals ▼

Research & Education
at Mayo Clinic ▼

Giving to
Mayo Clinic ▼

Request appointment  Log in 

Diseases & Conditions

Attention-deficit/hyperactivity disorder (ADHD) in children

[Request an Appointment](#)

[Symptoms & causes](#)

[Diagnosis & treatment](#)

[Doctors & departments](#)

[Care at Mayo Clinic](#)

Overview

Attention-deficit/hyperactivity disorder (ADHD) is a chronic condition that affects millions of children and often continues into adulthood. ADHD includes a combination of persistent problems, such as difficulty sustaining attention, hyperactivity and impulsive behavior.

Children with ADHD may also struggle with low self-esteem, troubled relationships and poor performance in school. Symptoms sometimes lessen with age. However, some people never completely outgrow their

Advertisement

Mayo Clinic does not endorse companies or products. Advertising revenue supports our not-for-profit mission.

Advertising & Sponsorship

ADHD symptoms. But they can learn strategies to be successful.

While treatment won't cure ADHD, it can help a great deal with symptoms. Treatment typically involves medications and behavioral interventions. Early diagnosis and treatment can make a big difference in outcome.

Products & Services

[A Book: A Practical Guide to Help Kids of All Ages Thrive](#)

Symptoms

The primary features of ADHD include inattention and hyperactive-impulsive behavior. ADHD symptoms start before age 12, and in some children, they're noticeable as early as 3 years of age. ADHD symptoms can be mild, moderate or severe, and they may continue into adulthood.

ADHD occurs more often in males than in females, and behaviors can be different in boys and girls. For example, boys may be more hyperactive and girls may tend to be quietly inattentive.

There are three subtypes of ADHD:

Mayo Clinic Press

Check out these best-sellers and special offers on books and newsletters from [Mayo Clinic Press](#).

[Mayo Clinic on Incontinence](#)

[The Essential Diabetes Book](#)

[Mayo Clinic on Hearing and Balance](#)

[FREE Mayo Clinic Diet Assessment](#)

[Mayo Clinic Health Letter - FREE book](#)

- **Predominantly inattentive.** The majority of symptoms fall under inattention.
- **Predominantly hyperactive/impulsive.** The majority of symptoms are hyperactive and impulsive.
- **Combined.** This is a mix of inattentive symptoms and hyperactive/impulsive symptoms.

Inattention

A child who shows a pattern of inattention may often:

- Fail to pay close attention to details or make careless mistakes in schoolwork
- Have trouble staying focused in tasks or play
- Appear not to listen, even when spoken to directly
- Have difficulty following through on instructions and fail to finish schoolwork or chores
- Have trouble organizing tasks and activities
- Avoid or dislike tasks that require focused mental effort, such as homework
- Lose items needed for tasks or activities, for example, toys, school assignments,

pencils

- Be easily distracted
- Forget to do some daily activities, such as forgetting to do chores

Hyperactivity and impulsivity

A child who shows a pattern of hyperactive and impulsive symptoms may often:

- Fidget with or tap his or her hands or feet, or squirm in the seat
- Have difficulty staying seated in the classroom or in other situations
- Be on the go, in constant motion
- Run around or climb in situations when it's not appropriate
- Have trouble playing or doing an activity quietly
- Talk too much
- Blurt out answers, interrupting the questioner
- Have difficulty waiting for his or her turn
- Interrupt or intrude on others' conversations, games or activities

Typical developmental behavior vs. ADHD

Most healthy children are inattentive, hyperactive or impulsive at one time or another. It's typical for preschoolers to have short attention spans and be unable to stick with one activity for long. Even in older children and teenagers, attention span often depends on the level of interest.

The same is true of hyperactivity. Young children are naturally energetic — they often are still full of energy long after they've worn their parents out. In addition, some children just naturally have a higher activity level than others do. Children should never be classified as having ADHD just because they're different from their friends or siblings.

Children who have problems in school but get along well at home or with friends are likely struggling with something other than ADHD. The same is true of children who are hyperactive or inattentive at home, but whose schoolwork and friendships remain unaffected.

When to see a doctor

If you're concerned that your child shows signs of ADHD, see your pediatrician or family doctor. Your doctor may refer you to a specialist, such as a developmental-behavioral pediatrician, psychologist, psychiatrist or pediatric neurologist, but it's

important to have a medical evaluation first to check for other possible causes of your child's difficulties.

[Request an appointment](#)

From Mayo Clinic to your inbox

Sign up for free and stay up to date on research advancements, health tips, current health topics, and expertise on managing health. [Click here for an email preview.](#)

[Learn more about Mayo Clinic's use of data.](#)

Subscribe!

Causes

While the exact cause of ADHD is not clear, research efforts continue. Factors that may be involved in the development of ADHD include genetics, the environment or problems with the central nervous system at

key moments in development.

Risk factors

Risk factors for ADHD may include:

- Blood relatives, such as a parent or sibling, with ADHD or another mental health disorder
- Exposure to environmental toxins — such as lead, found mainly in paint and pipes in older buildings
- Maternal drug use, alcohol use or smoking during pregnancy
- Premature birth

Although sugar is a popular suspect in causing hyperactivity, there's no reliable proof of this. Many issues in childhood can lead to difficulty sustaining attention, but that's not the same as ADHD.

Complications

ADHD can make life difficult for children.

Children with ADHD:

- Often struggle in the classroom, which can lead to academic failure and judgment by other children and adults

- Tend to have more accidents and injuries of all kinds than do children who don't have ADHD
- Tend to have poor self-esteem
- Are more likely to have trouble interacting with and being accepted by peers and adults
- Are at increased risk of alcohol and drug abuse and other delinquent behavior

Coexisting conditions

ADHD doesn't cause other psychological or developmental problems. However, children with ADHD are more likely than others to also have conditions such as:

- **Oppositional defiant disorder (ODD)**, generally defined as a pattern of negative, defiant and hostile behavior toward authority figures
- **Conduct disorder**, marked by antisocial behavior such as stealing, fighting, destroying property, and harming people or animals
- **Disruptive mood dysregulation disorder**, characterized by irritability and problems tolerating frustration
- **Learning disabilities**, including problems with reading, writing, understanding and communicating

- **Substance use disorders**, including drugs, alcohol and smoking
 - **Anxiety disorders**, which may cause overwhelming worry and nervousness, and include obsessive compulsive disorder (OCD)
 - **Mood disorders**, including depression and bipolar disorder, which includes depression as well as manic behavior
 - **Autism spectrum disorder**, a condition related to brain development that impacts how a person perceives and socializes with others
 - **Tic disorder or Tourette syndrome**, disorders that involve repetitive movements or unwanted sounds (tics) that can't be easily controlled
-

Prevention

To help reduce your child's risk of ADHD:

- **During pregnancy**, avoid anything that could harm fetal development. For example, don't drink alcohol, use recreational drugs or smoke cigarettes.
- **Protect your child from exposure to pollutants and toxins**, including cigarette smoke and lead paint.

- **Limit screen time.** Although still unproved, it may be prudent for children to avoid excessive exposure to TV and video games in the first five years of life.

By Mayo Clinic Staff

Attention-deficit/hyperactivity disorder (ADHD) in children care at Mayo Clinic

[Request an appointment](#)

Diagnosis & treatment

June 25, 2019

[Print](#)

[Show references](#)

Related

Associated Procedures

[Psychotherapy](#)

Products & Services

[A Book: A Practical Guide to Help Kids of All Ages Thrive](#)

Mayo Clinic in Rochester, Minnesota, has been recognized as a highly performing Psychiatry hospital for 2024-2025 by U.S. News & World Report.

[Learn more about this top honor](#)

CON-20155299

5X Challenge

Give Today

Thanks to generous benefactors, your gift today can have 5X the impact to advance AI

Find a
doctor

Explore
career
options

Sign
up for
free
e-
newsletters

About Mayo Clinic

About this Site

Contact Us

Locations

Health Information Policy

Medicare Accountable Care
Organization (ACO)

Media Requests

News Network

Price Transparency

Medical Professionals

AskMayoExpert

Clinical Trials

Mayo Clinic Alumni Association

Refer a Patient

Businesses

Executive Health Program

International Business
Collaborations

Facilities & Real Estate

Supplier Information

Students

Admissions Requirements

Degree Programs

Student & Faculty Portal

Researchers

Research Faculty

Laboratories

International Patients

Appointments

Financial Services

International Locations & Offices

Charitable Care & Financial Assistance

Community Health Needs
Assessment

Financial Assistance Documents
– Arizona

Financial Assistance Documents
– Florida

Financial Assistance Documents
– Minnesota

[Terms & Conditions](#) [Privacy Policy](#) [Notice of Privacy Practices](#) [Notice of Nondiscrimination](#)
[Accessibility Statement](#) [Advertising & Sponsorship Policy](#) [Site Map](#)

© 1998-2024 Mayo Foundation for Medical Education and Research (MFMER).
All rights reserved.

Language: English ▼

