What is ADHD?

ADHD is a biological disorder that affects how the brain functions and develops. People with ADHD have trouble paying attention, sitting still, or controlling their behavior.

Many people have behaviors that are like ADHD symptoms, especially children. The difference with ADHD is that these symptoms are chronic (long lasting) and they interfere with daily life. For example, people with ADHD often have trouble at school or work. They may also struggle to learn from past mistakes or predict how their choices will affect the future. Their personal relationships can suffer. And as a result, they may feel anxious, unsure of themselves, and depressed.

ADHD is a serious condition that affects up to 1 in 10 schoolchildren in Utah, and it often persists into adulthood. Right now, there’s no cure for ADHD. But with early and proper treatment, most people with ADHD can enjoy better relationships and self-esteem — and have a much better chance of reaching their full potential.

“... What a difference a year has made! Danny earns much better grades now and has a good attitude. He’s making friends and getting along with all of us at home, too. Our whole family just works better. You know, I wasn’t happy about Danny’s ADHD diagnosis. But I’m grateful now. He needed treatment — and he’s getting it.”

— Miriam, mother of a child with ADHD
What are the types and symptoms of ADHD?

ADHD symptoms are patterns of behavior. ADHD is divided into three types, based on the patterns below.

<table>
<thead>
<tr>
<th>1</th>
<th>Inattentive type</th>
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</thead>
<tbody>
<tr>
<td>People with this type of ADHD consistently have trouble paying attention, resisting distractions, and sustaining their focus.</td>
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<tr>
<td><strong>INATTENTION</strong></td>
<td><strong>HYPERACTIVITY</strong></td>
</tr>
<tr>
<td>• Is often distracted, and makes careless mistakes</td>
<td>• Fidgets or squirms, seems or feels restless much of the time</td>
</tr>
<tr>
<td>• Has trouble focusing and organizing</td>
<td>• Runs about or climbs too much, seems “driven by a motor”</td>
</tr>
<tr>
<td>• Doesn’t follow through with tasks</td>
<td>• Has trouble being quiet</td>
</tr>
<tr>
<td>• Often forgets and loses things</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>Hyperactive-impulsive type</th>
</tr>
</thead>
<tbody>
<tr>
<td>People with this type are too active (hyperactive) and tend to act without much thought or control (impulsive).</td>
<td></td>
</tr>
<tr>
<td><strong>ADHD SYMPTOMS IN ADULTS</strong></td>
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<tr>
<td>ADHD doesn’t start in adulthood, although symptoms may not be recognized until then. While hyperactive symptoms often diminish in adulthood, adults with ADHD usually have symptoms like these:</td>
<td></td>
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<tr>
<td>• Difficulty concentrating or sticking with tasks</td>
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<tr>
<td>• Trouble with memory, organization, or planning</td>
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<tr>
<td>• Making rash decisions</td>
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<tr>
<td>Find the ADHD in Adults fact sheet on Intermountain’s ADHD topic page: intermountainhealthcare.org/ADHD</td>
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</tbody>
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<table>
<thead>
<tr>
<th>3</th>
<th>Combined type</th>
</tr>
</thead>
<tbody>
<tr>
<td>People with this type of ADHD show all three types of symptoms: inattention, hyperactivity, and impulsivity (see above). This type is the most common — 50% to 75% of people with ADHD have the combined type.</td>
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</tbody>
</table>

What causes ADHD?

**ADHD affects the brain’s executive function system.** The executive function system plays a key role in controlling behavior, thoughts, and emotions. Weaknesses in executive function can make it difficult to control one’s emotions, start and finish tasks, organize items, use long-term memory, solve problems, and work toward a goal.

While there are many theories, scientists don’t know exactly what causes ADHD. It’s important for parents to know that ADHD is NOT caused by child-rearing methods or the family environment. Scientists do know that ADHD runs in families — many people with ADHD have a parent or other relative with the disorder. Symptoms of ADHD are also seen in patients who have had brain injuries.
How is ADHD diagnosed?

There’s no blood test or brain scan to find out if you have ADHD. Doctors diagnose ADHD the same way they diagnose a lot of other conditions: by gathering different kinds of information and comparing it to an accepted medical definition. The tools they use are described below.

- **Questionnaires.** There are several standard questionnaires (forms) used to check for ADHD and other mental health problems. The questionnaires ask about symptoms in different settings. They also ask about stress levels and coping styles. For a school-aged child, questionnaires will also be used to gather information about the child’s classroom behavior and academic performance.

- **Medical history.** The doctor asks about past and present illnesses, personality and development, and family history.

- **Physical exam.** A thorough exam helps a doctor know if symptoms come from a condition other than ADHD. (Some conditions can also make ADHD worse.)

- **Guidelines for diagnosis.** Using information from the sources described above, a doctor diagnoses ADHD if the following are true:
  - The symptoms generally were present by age 12
  - The symptoms interfere with performance in two or more settings — for example, at school, home, work, or in personal relationships
  - The symptoms have lasted 6 months or longer

**CO-EXISTING CONDITIONS**

People with ADHD sometimes have one or more of these disorders as well:

- Learning disability
- Oppositional defiant disorder or conduct disorder
- Anxiety
- Depression
- Bipolar disorder
- Autistic spectrum disorders

“I had good teachers. I think if we’d known about my ADHD and dyslexia, we could have done things differently. Maybe I could have avoided so many bad grades and bad feelings. But like my doctor says: it’s never too late. Treatment is already helping with my job. And who knows? Maybe I’ll go back to school.”

— Marcus, newly diagnosed adult with ADHD and dyslexia (a learning disability)
How is ADHD treated?

ADHD is treated with strategies that aim at reducing symptoms, while giving people with ADHD and their families new behaviors and skills to help manage ADHD and live well with the condition.

Treatment strategies might be tried one by one or in combination based on conversations between doctors, patients, families, and teachers. Common effective strategies are described below.

### Medication

Medication is a common component of treatment, and studies show that it works well for most people.

ADHD medications work by helping the brain’s chemical message carriers (neurotransmitters) function better.

- They CAN help focus attention and decrease activity and impulsivity.
- They CAN’T cure ADHD or teach new behaviors or skills.

Just as glasses help people focus their eyes, medications allow people with ADHD to focus their thoughts and actions better.

There are several options for treating ADHD with medication. Stimulants such as Ritalin (methylphenidate) have been used for decades. Non-stimulant medications — such as Wellbutrin (bupropion) or Straterra (atomoxetine) — are being used for some patients.

Watch for side effects and whether the medication is helping with attention and behavior. If a medication causes troublesome side effects — or if the medication or dosage doesn’t seem to help — contact your doctor.

### Education, training, and support groups

The more you know about ADHD, the better you can cope with it. This goes for family members and teachers, as well as for the person with ADHD. Here are a few ways to get good information:

- **Community ADHD classes.** Learn about ADHD, how it impacts families, and strategies to manage it at home, school, and work.
- **Books and websites.** These resources can give you more information about living with ADHD.
- **Support groups.** Connect with and learn from people who share your challenges and concerns.
- **Parent skills training.** Learn about tools and techniques for managing a child with ADHD.

See page 7 for a detailed resource list.
**What about alternative treatments?**

From time to time, a new article or book promotes an alternative ADHD treatment. Here are a few recent examples:

- Biofeedback
- Allergy treatments
- Dietary restrictions
- Yeast infection treatments
- Vitamin and mineral supplements
- Herbal treatments

Research has not proven the benefit of any of these. So before trying these or other alternative treatments, learn as much as you can about the science behind them. Research options at [www.nccam.nih.gov](http://www.nccam.nih.gov), the National Center for Complementary and Alternative Medicine. Then talk with your doctor and make an informed choice.

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**Family counseling and/or education**

People with ADHD may need counseling to improve their self-esteem and help them express their feelings better. And because ADHD affects the whole family, parents, siblings, and spouses may also benefit from counseling. Counseling can help undo some of the frustration and anger that often come from living with a person with untreated ADHD.

**Behavioral therapy**

Behavioral therapy helps the person focus on current behaviors and learn more effective habits, skills, and responses. It can also be helpful if co-existing conditions cause specific behavior problems. Behavioral therapy often involves working with a child to set behavior goals, then tracking progress toward goals. Consequences and rewards — used in a nonpunishing way — help motivate changes.

For example, a child might have a goal of sitting for 15 minutes at a time to do school work. Each day, parents or teachers record whether he reached this goal. And from time to time, they can review the child’s progress and offer feedback.

It’s common to have different goals for different settings (for example, home and school) and in different areas (such as relationships or tasks). But each part of the plan supports the others. Each part gives more structure to daily life, and sets clear expectations for behavior.

Tools to help set and track goals can be found on Intermountain’s ADHD topic page at: [intermountainhealthcare.org/ADHD](http://intermountainhealthcare.org/ADHD).

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“Success stories? I have a bunch of kids I started seeing when they were really young. Now they’re graduating from high school, going to college, getting jobs and having satisfying relationships. I think every one of them is a success.

But because ADHD is chronic, you’re never really done. You need to keep your eyes open. Celebrate your successes, but don’t stop doing what you need to do to take care of yourself.”

— Jennifer, family practice doctor
How to help your child with ADHD

Use this page to help you guide your child’s treatment — at home, at school, and with your child’s doctor.

**Home plan**

- **Sign up for the Parent to Parent: Family Training on ADHD class series.** The CHADD organization provides this “P2P” class series on understanding ADHD, working with schools, building resiliency, and managing teen challenges. See page 7 for more information about CHADD.
- **Contact a parent support group.** The CHADD organization also runs support groups.
- **Consider counseling.** You, your child, and other family members may want counseling (psychotherapy) to help heal the difficult feelings that ADHD can bring up. Ask your doctor for advice or a referral.
- **Read about ADHD.** The national CHADD website (see page 7) is one source for materials on ADHD.
- **Set and monitor behavior goals.** With your child, set achievable goals in different areas such as behavior, relationships, emotions, and responsibilities. See the resources on page 7 for examples and ideas.
- **Monitor teenage drivers.** Teenagers with untreated ADHD have higher accident rates due to lack of focus. Help teenagers understand ADHD and how it affects driving. Make sure they keep to their treatment plan (including medication) when they’re driving.
- **Communicate acceptance.** ADHD is a challenge — but it shouldn’t be a tragedy. Try to accept the condition and help your child do the same. Be consistent and firm, but carry out your home plan in a positive way.

**School plan**

- **Meet and collaborate often with school staff.** Make sure your child’s teachers understand ADHD. Work with them to develop a school plan with behavior goals. Make sure they participate in follow-up evaluations. Involve the school mental health specialist and principal as needed.
- **Get involved.** Attend school events and meetings. Volunteer in your child’s classroom. You’ll gain insight into your child and build valuable relationships with school staff.
- **Understand services available.** Your child may need special services. Two federal laws outline your child’s right to a free and appropriate public education (FAPE) regardless of disability:
  - Individuals with Disabilities Education Act (IDEA), part B
  - Section 504 of the Rehabilitation Act of 1973
  Not all children with ADHD qualify for special services. Use the resources on page 7 to learn more.
- **Monitor your child’s progress.** If your child isn’t doing as well as usual in school, make an appointment with your child’s doctor now — don’t wait until your next regular appointment.

**Medical plan**

- **Track your child’s progress.** Until symptoms are stable, your child’s doctor may request follow-up appointments every 3 to 4 weeks. After that, follow-up visits are usually every 3 to 6 months. Track your child’s progress throughout the process.
- **Make sure your child takes medication as prescribed.** Don’t let your child skip doses. Make sure you know what to do if a dose is missed.
- **Tell your doctor about other medications.** This includes herbs, vitamins, and over-the-counter remedies. Your doctor can help you make sure these don’t interfere with the ADHD medication.
- **Watch for side effects.** Ask your child’s doctor about possible side effects. Use a chart to track side effects. Call the doctor if anything worries you.
- **Ask questions and give feedback.** Make sure you understand your child’s treatment. Discuss your concerns with the doctor. Return follow-up questionnaires. Ask for a second opinion or a referral if necessary.

Check out Intermountain resources to help you work with the school and talk with your child at home:

- ADHD: Talking to Your Child’s or Teen’s Teachers
- ADHD: Tips for Teachers
- ADHD: Talking with Your Child

Find these on Intermountain’s ADHD topic page: intermountainhealthcare.org/ADHD
Where to learn more

The resources listed here offer information, support, and advice for managing ADHD.

**Books for parents**

**Books for educators**

**Books and DVDs for kids and teens**
- A Bird’s-eye View of Life with ADD and ADHD: Advice from Young Survivors. Chris Dendy and Alex Zeigler. Cherish the Children 2007. (adolescent)
- All Dogs Have ADHD. Kathy Hoopmann. Jessica Kingsley Pub 2008. (ages 4 to 8)
- Help 4 ADD @ High School. Kathleen Nadeau. Advantage 1998. (ages 13 and up)
- Putting on the Brakes and Putting on the Brakes Activity Book for Kids. Patricia Quinn and Judith Stern. Magination 2008. (ages 4 to 13)

**Books for adults with ADHD**
- Driven to Distraction: Recognizing and Coping with Attention Deficit Disorder from Childhood through Adulthood. Edward Hallowell and John Ratey. Touchstone 2011.

**Websites and organizations**
- [www.intermountainhealthcare.org/adhd](http://www.intermountainhealthcare.org/adhd) Intermountain’s ADHD Online Center includes educational materials and tools.
- [www.chadd.org](http://www.chadd.org) [www.chaddofutah.com](http://www.chaddofutah.com) Children and Adults with Attention Deficit Hyperactivity Disorder (CHADD) is the nation’s leading nonprofit organization serving people with ADHD. Visit these websites to learn about their programs — including meetings and classes in your area.
- [www.help4adhd.org](http://www.help4adhd.org) The National Resource Center on ADHD presents a full library of information about ADHD.
- [www.nami.org](http://www.nami.org) The National Alliance on Mental Illness provides support groups, mentors, and information.
- [www.nichcy.org](http://www.nichcy.org) The National Dissemination Center for Children with Disabilities provides information on educational rights for children with special needs.
- [www.parentsmedguide.org](http://www.parentsmedguide.org) This site provides access to a Medication Guide for Treating ADHD produced by the American Academy of Child and Adolescent Psychiatry and the American Psychiatric Association.
- [www.livesinthebalance.org](http://www.livesinthebalance.org) The Lives in the Balance site provides education and video examples to help parents use the Collaborative Problem Solving approach with behaviorally challenging children.
### Myths and truths about ADHD

Have you heard any of these myths about ADHD? Get the truth.

<table>
<thead>
<tr>
<th>Myth</th>
<th>Truth</th>
</tr>
</thead>
<tbody>
<tr>
<td>“ADHD isn’t a REAL disorder.”</td>
<td>Over 100 years of research have found that ADHD is a real disorder caused by problems in the brain.</td>
</tr>
<tr>
<td>“ADHD happens to people of low intelligence.”</td>
<td>ADHD is about poor performance, NOT poor intelligence. Treatment can help people with ADHD reach their full potential — whatever their IQ.</td>
</tr>
<tr>
<td>“ADHD is caused by bad parenting.”</td>
<td>ADHD is a biological disorder. Environment can affect ADHD behaviors, but it doesn’t cause them.</td>
</tr>
<tr>
<td>“ADHD is over-diagnosed.”</td>
<td>Studies show that ADHD is probably under-diagnosed. It’s one of the most common behavioral disorders in children. It affects over 9% of school-aged children — and many adults as well.</td>
</tr>
<tr>
<td>“Children with ADHD are over-medicated.”</td>
<td>Prescriptions for ADHD medications have increased. But most experts think this is due to better diagnosis and treatment of this common disorder.</td>
</tr>
<tr>
<td>“Even if it really is ADHD, you’re better off ignoring it.”</td>
<td>Don’t ignore ADHD. Studies show that without treatment, a person with ADHD is more prone to alcohol and drug abuse, school and work problems, and difficulty with personal relationships. There’s a greater risk for criminal behavior, too. A recent study shows that earlier treatment leads to better results.</td>
</tr>
<tr>
<td>“Talking about an ADHD diagnosis could hurt my child’s self-esteem.”</td>
<td>Kids often find an ADHD diagnosis to be a relief. The diagnosis can help explain symptoms that may have been puzzling or frustrating for your child.</td>
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</tbody>
</table>