ADHD Medications

Are ADHD drugs right for you or your child? What you need to know, including common side effects and tips for taking them responsibly.

Medication for ADHD: What you need to know

Medication can help reduce symptoms of hyperactivity, inattentiveness, and impulsivity in children and adults with attention deficit hyperactivity disorder (ADHD), formerly known as ADD. However, medications come with side effects and risks—and they’re not the only treatment option. Whether you're the parent or the patient, it’s important to learn the facts about ADHD medication so you can make an informed decision about what’s best for you or your child.

The first thing to understand is exactly what medications for ADHD can and can’t do. ADHD medication may help improve the ability to concentrate, control impulses, plan ahead, and follow through with tasks. However, it isn’t a magic pill that will fix all of your or your child’s problems. Even when the medication is working, a child with ADHD might still struggle with forgetfulness, emotional problems, and social awkwardness, or an adult with disorganization, distractibility, and relationship difficulties. That’s why it’s so important to also make lifestyle changes that include regular exercise, a healthy diet, and sufficient sleep.

Medication doesn’t cure ADHD. It can relieve symptoms while it’s being taken, but once medication stops, those symptoms come back. Also, ADHD medication helps some more than others. Some people experience dramatic improvement while others experience only modest gains. Because each person responds differently and unpredictably to medication for ADHD, its use should always be personalized to the individual and closely monitored by a doctor. When medication for ADHD is not carefully monitored, it is less effective and more
Stimulant medications for ADHD

Stimulants are the most common type of medication prescribed for attention deficit disorder. They have the longest track record for treating ADHD and the most research to back up their effectiveness. The stimulant class of medication includes widely used drugs such as Ritalin, Adderall, and Dexedrine.

Stimulants are believed to work by increasing dopamine levels in the brain. Dopamine is a neurotransmitter associated with motivation, pleasure, attention, and movement. For many people with ADHD, stimulant medications boost concentration and focus while reducing hyperactive and impulsive behaviors.

Short-acting vs. long-acting stimulants

Stimulants for ADHD come in both short- and long-acting dosages. Short-acting stimulants peak after several hours, and must be taken 2-3 times a day. Long-acting or extended-release stimulants last 8-12 hours, and are usually taken just once a day.

The long-acting versions of ADHD medication are often preferred, since people with ADHD often have trouble remembering to take their pills. Taking just one dose a day is much easier and more convenient.

Common side effects of stimulants

- Feeling restless and jittery
- Difficulty sleeping
- Loss of appetite
- Headaches
- Upset stomach
- Irritability, mood swings
- Depression
- Dizziness
- Racing heartbeat
- Tics

Stimulant medications may also cause personality changes. Some people become withdrawn, listless, rigid, or less spontaneous and talkative. Others develop obsessive-compulsive symptoms. Since stimulants raise blood pressure and heart rate, many experts
worry about the dangers of taking these ADHD drugs for extended periods.

**Stimulant medication safety concerns**

Beyond the potential side effects, there are a number of safety concerns associated with the use of stimulant medications for ADHD.

**Effect on the developing brain** – The long-term impact of ADHD medication on the youthful, developing brain is not yet known. Some researchers are concerned that the use of drugs such as Ritalin in children and teens might interfere with normal brain development.

**Heart-related problems** – ADHD stimulant medications have been found to cause sudden death in children and adults with heart conditions. The American Heart Association recommends that all individuals, including children, have a cardiac evaluation prior to starting a stimulant. An electrocardiogram is recommended if the person has a history of heart problems.

**Psychiatric problems** – Stimulants for ADHD can trigger or exacerbate symptoms of hostility, aggression, anxiety, depression, and paranoia. People with a personal or family history of suicide, depression, or bipolar disorder are at a particularly high risk, and should be carefully monitored when taking stimulants.

**Potential for abuse** – Stimulant abuse is a growing problem, particularly among teens and young adults. College students take this medication for a boost when cramming for exams or pulling all-nighters. Others abuse stimulant meds for their weight-loss properties. If your child is taking stimulants, make sure he or she isn’t sharing the pills or selling them.

ADHD stimulants are not recommended for those with:

- Any type of heart defect or disease
- High blood pressure
- Hyperthyroidism
- Glaucoma
- High levels of anxiety
- A history of drug abuse

**Stimulant Medication Red Flags**

Call your doctor right away if you or your child experience any of the following symptoms while taking stimulant medication for ADHD:
• chest pain
• shortness of breath
• fainting
• seeing or hearing things that aren’t real
• suspicion or paranoia

**Non-stimulant medications for ADHD**

In addition to the traditional stimulant drugs, there are several other medications used to treat ADHD, including Strattera, atypical antidepressants, and certain blood pressure medications. In most cases, non-stimulant medications are considered when stimulants haven’t worked or have caused intolerable side effects.

**Strattera**

Strattera, also known by its generic name atomoxetine, is the only non-stimulant medication approved by the FDA for ADHD treatment. Unlike stimulants, which affect dopamine, Strattera boosts the levels of norepinephrine, a different brain chemical.

Strattera is longer-acting than the stimulant drugs. Its effects last over 24 hours—making it a good option for those who have trouble getting started in the morning. Since it has some antidepressant properties, it’s also a top choice for those with co-existing anxiety or depression. Another plus is that it doesn’t exacerbate tics or Tourette’s Syndrome.

On the other hand, Strattera doesn’t appear to be as effective as the stimulant medications for treating symptoms of hyperactivity.

Common side effects of Strattera include:

• Sleepiness
• Headaches
• Dizziness
• Abdominal pain or upset stomach
• Nausea or vomiting
• Mood swings

Strattera can also cause insomnia and appetite suppression, but these side effects are more common in stimulants.
Strattera Suicide Risk in Children

Strattera may increase suicidal thoughts and actions in some people, especially children and younger adults who have bipolar disorder or depression in addition to ADHD.

Call the doctor immediately if your child shows agitation, irritability, suicidal thinking or behaviors, and unusual changes in behavior.

Other medication options

The following medications are sometimes used “off-label” in the treatment of attention deficit disorder, although they are not FDA approved for this purpose. They should only be considered when stimulants or Strattera aren’t viable options.

**High blood pressure medication for ADHD** – Certain blood pressure medications can be used to treat ADHD. Options include clonidine (Catapres) and guanfacine (Tenex). But while these medications can be effective for hyperactivity, impulsivity, and aggression, they are less helpful when it comes to attention problems.

**Antidepressants for ADHD** – For people suffering from both ADHD and depression, certain antidepressants, which target multiple neurotransmitters in the brain, may be prescribed. Wellbutrin, also known by the generic name bupropion, is most widely used. Wellbutrin targets both norepinephrine and dopamine. Another option is the use of tricyclic antidepressants.

Deciding whether or not to take ADHD medication

Even when armed with all the facts, deciding whether or not to take ADD/ADHD medication isn’t always easy. If you’re unsure, don’t rush the decision. Take your time to weigh the options. And if the medication is for your child, be sure to get their input in the decision-making process.

Most importantly, trust your instincts and do what feels right to you. Don’t let anyone—be it your physician or the principal at your child’s school—pressure your child into medication if you’re not comfortable with it. Remember: medication isn’t the only treatment option. For young children especially, medication should be viewed as a last resort, not the first course of treatment to try.

Questions to ask an ADHD specialist

Consulting with an ADHD specialist or an experienced psychiatrist can help you understand
the pros and cons of medication. Here are some questions to ask:

- What ADHD treatments do you recommend?
- Can the symptoms be managed without medication?
- What medications do you recommend and what are the side effects?
- How effective is medication for ADHD?
- How long will the medication be necessary for treatment?
- What factors will influence the decision to stop medication?

**For Parents: Helpful questions about ADHD medication**

When deciding whether or not to put your child on medication, Jerome Schultz, Ph.D., ADHD expert, says to first consider the following questions:

- Has my child been helped by non-medication approaches? Self-calming techniques, deep breathing, and yoga can often help children with ADHD.
- Has the school tried to teach my child to be more attentive and less active?
- What is the decision to put my child on medication based on? Is it the result of behavioral observations over time and in different settings, such as in school and at home?
- When is my child at their best? Fishing with an uncle or playing video games? Help the physician understand how pervasive or selective the problem is.
- Does my child have other conditions that can be mistaken for hyperactivity? Children exposed to toxic chemicals or who have undiagnosed learning disabilities and low-level anxiety disorder may demonstrate similar behaviors.

Source: *Family Education Network*

**ADHD medication alone is not enough**

Treatment for attention deficit disorder isn’t just about seeing doctors or taking medication. There are many ways to help yourself or your child tackle the challenges of ADHD and lead a calmer, more productive life. With the right tips and tools, you can manage many of the symptoms of your ADHD on your own. Even if you choose to take medication, healthy lifestyle habits and other self-help strategies may enable you to take a lower dose.

**Exercise regularly.** Exercising is one of the most effective ways to reduce the symptoms of ADHD. Physical activity boosts the brain’s dopamine, norepinephrine, and serotonin levels—all of which affect focus and attention. Try walking, skateboarding, hiking, dancing or playing a favorite sport. Encourage your child to put down the video games and play outside.
Eat a healthy diet. While diet doesn’t cause ADHD, it does have an effect on mood, energy levels, and symptoms. Set regular snack and meal times. Add more omega-3 fatty acids to your diet and make sure you’re getting enough zinc, iron, and magnesium.

Get plenty of sleep. Regular quality sleep can lead to vast improvement in the symptoms of ADHD. Simple changes to daytime habits go a long way toward resting well at night. Have a set bedtime and stick to it. Avoid caffeine later in the day.

Try therapy. ADHD professionals can help you or your child learn new skills to cope with symptoms and change habits that are causing problems. Some therapies focus on managing stress and anger or controlling impulsive behaviors, while others teach you how to manage time, improve organizational skills, and persist toward goals.

Maintain a positive attitude. A positive attitude and common sense are your best assets for treating ADHD. When you are in a good frame of mind, you are more likely to be able to connect with your own needs or your child’s.

Guidelines for taking ADHD medication

If you decide to take medication for ADHD, it’s important to take the drug as directed. Following your doctor and pharmacist’s instructions will help you maximize the effectiveness of medication for ADHD and minimize the side effects and risks. Here are some guidelines for safe use:

Learn about the prescribed medication. Find out everything you can about the ADHD medication you or your child is taking, including potential side effects, how often to take it, special warnings, and other substances that should be avoided, such as over-the-counter cold medication.

Be patient. Finding the right medication and dose is a trial-and-error process. It will take some experimenting, as well as open, honest communication with your doctor.

Start small. It’s always best to start with a low dose and work up from there. The goal is to find the lowest possible dose that relieves you or your child’s symptoms.

Monitor the drug’s effects. Pay close attention to the effect the medication is having on your or your child’s emotions and behavior. Keep track of any side effects and monitor how well the medication is working to reduce symptoms.

Taper off slowly. If you or your child wants to stop taking medication, call the doctor for guidance on gradually decreasing the dose. Abruptly stopping medication can lead to unpleasant withdrawal symptoms such as irritability, fatigue, depression, and headaches.
Talking to your child about ADHD medication

Many kids and teens with ADHD don’t take their medication correctly—or stop taking it without talking to their parents or doctor—so if your child is on ADHD meds, make sure that he or she understands how to take the medication correctly and why following prescription guidelines are important.

Encourage your child to come to you with any medication-related concerns so you can work together to solve the problem or find another treatment option. It’s also important to remember that ADHD medication should never have a numbing effect on a child’s energy, curiosity or enthusiasm. A child still needs to behave like a child.

Monitoring ADHD medication’s effects on your child

Here is a list of questions you should ask when your child begins medication therapy, changes dosage, or starts taking a different medication:

- Is the medication having a positive impact on your child’s mood and/or behavior?
- Do you think the dosage or medication is working? Does your child think the dosage or medication is working?
- Does the dose need to be increased or decreased? What was the change in a specific behavior or set of behaviors that caused you to conclude that the medication needed to be evaluated?
- Is your child experiencing any side effects, such as headaches, stomachaches, fatigue or sleeplessness, (or suicidal thoughts if taking Strattera)? What is the likelihood that those side effects will last? (Ask your doctor). Do any lasting side effects (if any) outweigh the medication’s benefits?
- Do you or your child think a medication or dosage level has stopped working?


Dealing with side effects

Most children and adults taking medication for ADHD will experience at least a few side effects. Sometimes, side effects go away after the first few weeks on the medication. You may also be able to eliminate or reduce unpleasant side effects with a few simple strategies.

Loss of appetite – To deal with reduced appetite, eat healthy snacks throughout the day and push dinner to a later time when the medication has worn off.
Insomnia – If getting to sleep is a problem, try taking the stimulant earlier in the day. If you or your child is taking an extended-release stimulant, you can also try switching to the short-acting form. Also avoid caffeinated beverages, especially in the afternoon or evening.

Stomach upset or headaches – Don’t take the medication on an empty stomach, which can cause nausea, stomach pain, and headaches. Headaches can also be triggered by medication that’s wearing off, so switching to a long-acting drug may help.

Dizziness – First, have you or your child’s blood pressure checked. If it’s normal, you may want to reduce your dose or switch to a long-acting stimulant. Also make sure you’re drinking enough fluids.

Mood changes – If medication is causing irritability, depression, agitation, or other emotional side effects, try lowering the dose. Moodiness may also be caused by the rebound effect, in which case it may help to overlap the doses or switch to an extended-release medication.

If troublesome side effects persist despite your best efforts to manage them, talk to your doctor about adjusting the dose or trying a different drug. Many people respond better to the long-acting or extended release formulations of ADHD medication, which build gradually in the bloodstream and then wear off slowly. This minimizes the ups and downs caused by fluctuating medication levels and causes less of a rebound effect, where symptoms return, often worse than before, as the drug wears off.

Other resources

ADHD Medications – Article for teens. (TeensHealth)

ADHD Medications – Article for parents. (KidsHealth)

Managing Medication for Children and Adolescents with ADHD (National Resource Center on ADHD)

Your Toughest ADHD Medication Questions, Answered! – Find answers to parents’ top 10 questions about common ADHD medications. (ADDitude)

Managing Medication for Children and Adolescents with ADHD (National Resource Center on ADHD)

What You Need to Know About ADHD Medications – Guidelines for taking ADHD stimulant medications safely and effectively. (ADDitude)
What If Einstein Had Taken Ritalin? - Examines the effects of ADHD drugs.
(Overmatter.com - reprint of Wall Street Journal article)

Authors: Lawrence Robinson, Melinda Smith, M.A., Jeanne Segal, Ph.D., and Damon Ramsey, MD. Last updated: June 2019.