



Autism Spectrum Disorders: Medications

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This handout covers issues about the use of medication in the treatment of symptoms and behaviors linked to autism. Frequently asked questions are answered. Resources to learn more about autism are also listed.

Children with Autism

Children with autism behave differently than most people. These differences can be mild, severe, or somewhere in between. Children with autism may:

- Talk, think, and play in unusual ways.
- Seem to be interested in only a limited number of topics that most people do not find interesting.
- Not look at you or seem not to notice that you are there.
- Behave in odd ways, like flapping their arms when upset, or biting themselves.

Common Terms

Since autism symptoms can range from mild to severe, the range is called a *spectrum*. Hence, the disorder, autism, is called *autism spectrum disorder*, or *ASD* for short. Very mild autism is called *high functioning autism*. Another mild form is called *Asperger Syndrome*. Sometimes, when doctors are not sure how severe the autism is, the term *Pervasive Developmental Disorder – Not Otherwise Specified* may be used. When symptoms are more severe, then the term *autism* may be used.



Causes and Treatment

Most of the time it is not known why a child has ASD. Some children will have a clear medical reason that caused the autism. Children with ASD are not only different from most other children; they are different from each other. Like any child, a child with ASD has a unique family, community, and personality with different skills, talents, and interests.

Treatment is tailored for each child with ASD. Treatment depends on careful consideration of the unique qualities of the child and family. Treatment will likely include:

- Teaching skills, such as how to play and talk with others
- Family support
- Social and educational opportunities

Sometimes, using a *psychotropic* (sigh-koh-troh-pick) *medication* (medication that works on the brain) can be very helpful.

Treatment with Psychotropic Medications

Your provider, you, or another concerned adult may suggest that your child begin a trial of a psychotropic medication. The goal in using medications is to reduce behaviors, thoughts, or emotions that:

- Interfere with education or social interaction
- Distress your child or others

As a result, medications may improve the effect of non-medication treatments. Medication cannot take the place of other strategies such as:

- Social and behavioral interventions
- Family support
- A stable home
- Transition planning
- Good general medical care

Keep in mind that research on the use of psychotropic medications is done more often with adults. Many drugs have not been tested in children. Just because a drug seems to work well for an adult does not mean it will work well for a child. Few studies have been done with children who have ASD, but the number is on the rise. And, new medications are being developed all the time, offering new hope for medical treatment.

Frequently Asked Questions

How do psychotropic medications work?

The human brain is complex. It is made up of countless cells called *neurons* and other materials. Although the outside of the brain looks like a large clump of pasta, the brain is organized in a very precise way.

In the brain, neurons “talk” to each other by sending messages. These messages are chemicals, also called *neurotransmitters*. Any single neuron can have many kinds of neurotransmitters that it is able to release. Based on the message it needs to send, the neuron releases combinations of neurotransmitters to other neurons in the exact areas of the brain that it needs to talk to.

Psychotropic medications can affect some key neurotransmitters such as dopamine, serotonin, norepinephrine, epinephrine, glutamate, and opioids.

While the brain is complex, we do know that psychotropic medications can change the way neurons talk to each other. In most cases, they increase or decrease the amount or combination of neurotransmitters that are sent between neurons.

Can medication cure autism?

No. Medication cannot cure autism. The basic connections and shapes of the parts of the brain will not change with medication.

Is there a special autism medication?

No. There is no special medication made especially to treat autism. But, there are many behaviors and symptoms in autism that medication can treat. Talk to your provider about the behaviors in your child that are most difficult after you fill out the *Checklist* on page 9.

What parts of autism can medication improve?

Some medications improve the “core symptoms” of ASD, such as improving social behavior. Most of the time, medications are used to improve behaviors that are *associated* symptoms rather than core symptoms. When associated symptoms are improved this can lead to improvement in core symptoms. For example, a child who is better able to pay attention may then be better able to learn social behaviors. It is key to carefully decide first what it is about the child’s behavior that is causing the most trouble. A helpful medication can then be used to treat that behavior.

What symptoms and behaviors can be treated with medication?

There are many problems linked with ASD that medication can help treat. Some of the more common problems include:

- Aggressive behavior
- Oppositional behavior or non-compliance
- Self-injuring, such as head-banging or biting
- Hyperactivity or impulsive acts
- Poor attention span
- Difficulties in social relatedness
- Stereotyped behaviors like hand-flapping
- Sleep problems (falling asleep or staying asleep)
- Anxiety or severe frustration
- Obsessions and compulsive behavior
- Repetitive behaviors
- Mood problems, such as depression
- Tics
- Seizures
- Elimination problems such as wetting or soiling oneself

Keep in mind that medication is **not** a cure. Non-medication treatments will be needed as well.

How long will my child take medication?

We do not know for sure. Your child must keep taking medication for it to work. The brain changes over time, growing rapidly in young children, and more slowly in older children and teens. Symptoms and behaviors linked with ASD can change over time because the brain is growing and your child is learning new skills.

A medication that works well for a young child may not work as well as a child grows. Or, it may work better as a child grows. Keep in mind that non-medication treatments help the brain grow and organize as well. This can also affect how and whether medications should be used. It is well known that early behavioral, educational, and social treatments are very important for your child's future.

What questions should I ask about my child's medications?

Take time to learn about your child's medications. The more you know, the better able you will be to help your child. When asking about medication, you may want to find out:

- The name of it and what it is supposed to do.
- How and when your child takes it and for how long.
- Any foods, drinks, or other medications that should be avoided while taking it.
- Whether it should be taken with food or on an empty stomach.
- How helpful it is known to be to other children with ASD.
- The side effects and what you should do if they occur.
- Possible long-term side effects.
- What to do if there is a problem.

Is my child's care provider allowed to prescribe medication that is not designed to treat autism?

Yes. A licensed doctor or other qualified provider is allowed to prescribe any medication if used for a good scientific reason. This kind of use is called "off label." This means that the drug has not been approved for the specific use in treating autism.

Are psychotropic medications safe for children?

The U.S. Food and Drug Administration (FDA) has to approve any medication prescribed for children. This means drugs have been tested for years with thousands of patients (most times with adults). Researchers have studied to make sure that drugs work and are safe enough to allow their use with a low risk for severe problems.

No medication is entirely "safe" even when taken as prescribed. All drugs have side effects. And, there can be risks and side effects that researchers did not discover. Some children have medical conditions that make certain medications unsafe for them to use. Your child's provider will ask you questions to be sure medications prescribed are safe for your child. Some drugs can change the way the heart, liver, kidney, or other organs work. This does not mean that they are dangerous if the correct dose is taken. Your child's provider may need to order some studies before your child can start taking medication.

Is it safe to prescribe more than one medication?

Yes. It is very common for children and teens with ASD to take more than one psychotropic medication. There are potential pros for using more than one medication. It is possible to treat several behaviors and symptoms that a single medication cannot treat alone. When two or more medications are prescribed, it is sometimes possible to give lower doses of each individual medication than would be given if any of the medications was given alone, because two or more medications may treat the same symptoms. In this case, the possibility of having side effects may be reduced.

Why not use the same medications for all children with autism?

Each child is different. A medication that works well for one child may not work at all for another child. It can even make autistic behaviors worse.

Also, the effects of a certain drug may last for a short time in one child and a long time in another child. There is not usually a “best” medication for treating the behaviors and symptoms in autism.

Tell your child’s provider about any medications that your child is taking, because some medications cannot be taken together. Other things to think about when choosing a medication include:

- Preference for benefits
- Side effects
- Cost
- Ease of use
- Dosing
- Other medical conditions

How do I help choose a medication for my child?

Use the *Checklist* on page 9 to help you decide which symptoms and behaviors are causing the most trouble. It can help you and your child’s provider make a medication choice. Keep in mind that there is no “right” medication for children with autism and that effects vary from person to person. You may need to try out more than one medication or dosage to find just the right option.

After you fill out the *Checklist*, use the *Worksheet* on page 10, which lists common target symptoms, expected benefits, common side effects, dosing frequency, and cost. And, if there are other key issues for you, feel free to add more columns to the *Worksheet*.

Some things to keep in mind as you think about options:

- Be realistic about what medication may do.
- “Start low, go slow.” Begin with a low starting dose. Keep this handout so you can check your *Worksheet* so you can figure out if the medication is working to reduce the symptoms for which it is being prescribed. Often, doses need to be increased slowly. **Always** allow your provider to make this decision. Do not ever increase the dose yourself. Side effects may be better tolerated, or even avoided, if the dose is increased slowly. The goal is to find the lowest effective dose.
- Keep a daily record of the target symptoms and side effects, using the *Checklist*. Encourage your child to do the same if he or she is able.
- Any new treatment (medication or non-medication) may at first appear to be helpful. This effect may be unrelated to the medication itself. It often takes time and patience to find out whether a treatment is truly helpful.
- A medication that works well at one time may, over time, no longer appear to be as helpful. Many times, the loss of benefit may not be related to the medication at all. Consider other explanations besides medication failure.

Does my child need a special provider to prescribe psychotropic medication?

It is most important that a prescribing provider be skilled, interested, and aware in managing psychotropic medications. Child and adolescent psychiatrists, neurologists, developmental-behavioral pediatricians and many general pediatric specialists have interest and skill in psychotropic medication management.

If your prescribing provider is someone other than your child’s primary care provider (PCP), it is still important that your child’s PCP stay closely involved with medication care. Your child’s PCP serves as his or her “medical home.” Talk to your child’s provider for all of your questions about your child’s health, including issues related to medications. Your child’s PCP should be in close contact with the prescribing provider. The prescribing provider may either serve as a “consultant” to the PCP (in which case the PCP can prescribe the medications with the help of the consultant), or he or she may work with you as an additional ongoing provider for your child who keeps the PCP up to date with any changes in medications or dosing.

What can I do to help my child's provider manage medications?

You know your child best. Your child's provider can examine your child, and gather information about your child's medical, social, and family history and current functioning. Your child's provider cannot observe your child throughout the day, at home, in public, and elsewhere. Your child's provider will rely on you, and perhaps the reports of others, to select and manage medication use.

Be sure to let your child's provider know about **all** other medications that your child is taking. This includes:

- Other prescriptions
- Over-the-counter medications
- Herbs and other botanicals
- Supplements – vitamins and minerals

Any of these and other treatments, such as special diets, can affect the way your child's body handles the prescribed medications. Also, tell your child's provider about any allergies that you think or know your child has, as some allergies may not have been listed in your child's medical record.

Checklist: For Behaviors and Symptoms

Note that “seizures” is not on the list. Seizures will likely require medication management, and this decision will take a medical priority

| | <i>Slight problem</i> | <i>Mild problem</i> | <i>Moderate problem</i> | <i>Severe problem</i> | <i>Intolerable problem</i> |
|---|---------------------------|-------------------------|-----------------------------|---------------------------|--------------------------------|
| 1. Aggressive or oppositional behaviors Throws things, hits, or other | | | | | |
| 2. Self-injuring activities Bites self Bangs head Pulls out hair Hits self | | | | | |
| 3. Hyperactive and impulsive acts Restless/fidgets “Bounces off the wall” Acts without thinking (posing danger) | | | | | |
| 4. Poor attention span Difficulty paying attention at home, in therapy, or at school | | | | | |
| 5. Stereotyped behaviors Flaps hands Spins self around Toe-walks Twiddles fingers Screams when not upset | | | | | |
| 6. Sleep disturbances Will not go to bed Will not stay in bed Wakes up at night | | | | | |
| 7. Anxiety Screams when upset Tantrums | | | | | |
| 8. Compulsive or repetitive behaviors Lines items up Perseverative rituals | | | | | |
| 9. Mood problems Crying fits Refusals Screams when upset | | | | | |
| 10. Social relatedness Lack of awareness of others Gets into other people’s “space” Poor eye contact | | | | | |
| 11. Tics Movements Sounds | | | | | |
| 12. Elimination problems Soiling Wets self Constipation Pain with bowel movements | | | | | |

Worksheet: To Help Make Medication Choices

| Medication | Target Symptoms | Expected Benefits | Common Side Effects | Dosing Frequency | Cost | Other |
|------------|--|--|--|------------------|------|-------|
| | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | | | |
| | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | | | |
| | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | <ol style="list-style-type: none"> 1. 2. 3. 4. 5. | | | |

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns.

Resources to Learn More

Books

Straight Talk about Psychiatric Medications for Kids by Timothy E. Wilens, M.D., 1999.

Helping Parents, Youth, and Teachers Understand Medications for Behavioral and Emotional Problems: A Resource Book of Medication Information Handouts (Second Edition) by Mina K. Dulcan and Tami Benton, 2003.

Web Sites

American Academy of Child and Adolescent Psychiatry

www.aacap.org

See “Children and Psychiatric Medication” at

www.aacap.org/publications/childMed/index.htm

About Our Kids

<http://aboutourkids.org/articles/guidetopsychmeds.html>

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