



Anxiety Disorders:  
**Parents'  
Medication Guide**

AMERICAN ACADEMY OF  
CHILD & ADOLESCENT  
PSYCHIATRY

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The American Academy of Child and Adolescent Psychiatry promotes the healthy development of children, adolescents, and families through advocacy, education, and research. Child and adolescent psychiatrists are the leading physician authority on children's mental health.



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# Introduction

The purpose of the *Anxiety Disorders: Parents' Medication Guide* is to provide parents with an easy-to-read and easy-to-understand resource on treating anxiety disorders in children. In this Guide, we discuss the most common forms of anxiety and related disorders, including the following:

- Specific phobia
- Separation anxiety disorder
- Generalized anxiety disorder
- Social anxiety disorder
- Panic disorder
- Obsessive-compulsive disorder

## What is anxiety?

Anxiety is a normal emotion that is critical for our survival and functioning. It can help us avoid potentially dangerous situations and prepare for challenges. Stressful life events, such as taking a test, starting a new school, or speaking in front of a group can trigger normal forms of childhood anxiety that are helpful in preparing a child for the challenge ahead. That said, sometimes there can be problems in expressing emotions that can negatively affect day-to-day living. Fear, anxiety, sadness, and even our capacity to enjoy ourselves can be a problem if these emotions become extreme and impair one's capacity to function.

## How common are the anxiety disorders, and who is affected?

Anxiety disorders are common in children and adolescents, and typically begin during childhood and adolescence. In fact, some suggest that anxiety disorders may affect 1 in 8 children. The National Institute of Mental Health (NIMH) estimates that 25.1% of adolescents between the ages of 13 and 18 years will

experience an anxiety disorder, and 5.9% will experience a severe anxiety disorder. Boys and girls are equally affected in childhood, and after puberty, girls appear to be more commonly affected than boys.

Both genetics and the environment play a role in the anxiety disorders. A genetic family history of anxiety disorder puts a young person at risk for developing an anxiety disorder. In addition, caregivers or relatives can respond to an anxious child in such a way as to make the child's anxiety even worse by unknowingly supporting avoidance instead of engagement and unintentionally reinforce fear and worry instead of good coping.

## What is the difference between "normal" anxiety and an anxiety disorder?

Anxiety disorders are different from regular or typical anxiety, just like depression is different from everyday sadness or the way mania (elevated and expansive mood) is different from regular happiness and excitement.

Despite the different ways anxiety is expressed among children from different backgrounds and ethnicities, symptoms of anxiety disorders differ from those of normal anxiety in a number of important ways.

1. Normal anxiety occurs at all time points in life. Yet, the anxiety disorders **first affect children before puberty** and can begin or get worse unexpectedly "out of the blue."
2. Typical and developmentally appropriate activities that most children enjoy are **not manageable** for children with anxiety disorders. For a child with an anxiety disorder, going to school, participating in sleepovers or going to camp, making new friends at a party,





"showing off," and participating in new and potentially rewarding experiences (amusement parks) can be very anxiety provoking. As a matter of fact, the child's intense reaction is often surprising to their caregivers, as the triggering cause is often a routine and normal life event a child of a certain age is expected to be able to do.

3. Children with anxiety disorders often experience a number of **unexplained physical symptoms**, such as stomachaches, headaches, shortness of breath, chest pain, worrying about choking, and gagging or vomiting. They often worry about their overall health. Anxious children may pay too much attention to their body's sensations and mistakenly believe that these sensations are symptoms of an illness. As a result, these children are likely to appear as physically ill to their parents, and to visit the school nurse and/or pediatrician more often, potentially

leading to missed school days and even unnecessary medical procedures.

4. The **persistence and consistency** of the anxiety symptom picture over time is key to diagnosing an anxiety disorder. That said, some anxious children can experience a sudden worsening of anxiety symptoms. For example, an 8-year-old child who has been mildly anxious as a younger child but enjoyed school may now suffer from separation anxiety and refuse to go to school.
5. Children with anxiety tend to cope by **avoiding situations** that make them anxious. If the triggering experiences are routine and necessary tasks of growing up, the child's everyday functioning and home or school life can be disrupted.
6. Children with anxiety disorders can **also have normal anxiety**. Trained professionals, such as child and adolescent psychiatrists, can recognize

the symptom patterns of an anxiety disorder, in part because the types of symptoms are very similar among children with anxiety disorders.

Parents and caregivers often get into a pattern of anticipating a child's anxious behaviors and, in an effort to relieve their child's distress, will help their child avoid a potential anxiety trigger. Unfortunately, although the parents and caregivers have the best intentions, their actions may actually make the anxiety worse and prevent the child from coping with and adapting to typical and important developmental tasks. Avoidance, meltdowns, or other behaviors that continually keep a child from doing age-appropriate activities result in "functional" impairment. In addition, the physical and emotional distress of anxiety is "psychological" impairment. When a child with anxiety is experiencing *functional* and *psychological* impairment, they are suffering from an anxiety disorder.

# The Anxiety Disorders

Anxiety disorders are categorized into different forms depending on the symptoms children display. **(Table 1)**

## Common Symptoms Across All the Anxiety Disorders

Although there are specific symptoms associated with each of the anxiety disorders listed in Table 1, there are common symptoms among these disorders.

- Hypervigilance—continuous scanning of the environment for anything new and different.
- Reactivity—whereas most children are curious and interested in new things, children with anxiety often feel threatened by new or changing events or expectations and react accordingly.
- Physical complaints—headaches, fear of gagging, choking or vomiting, chest pain, shortness of breathing, poor appetite, stomachache, urgent bathroom trips, increased sweating, muscle tension, jitteriness, and difficulty falling asleep.
- Avoidance—the most common and easiest way for a child to cope with anxiety is to avoid. Instead of approaching a new situation with curiosity as most children do, children with anxiety disorders avoid their anxiety-triggering situations. Avoidance of important developmental tasks is a signal that the child's anxiety needs to be addressed.
- Behavioral issues—if the child cannot avoid an anxiety-triggering situation, he/she may demonstrate significant behavioral issues, often described as “meltdowns,” such as refusing to participate, becoming oppositional, and having temper tantrums. Intense anxiety or meltdowns are very challenging for most caregivers and often leave them feeling powerless to help their child.



**Table 1.**

Anxiety and Related Disorders	
<b>Specific Phobia</b>	<ul style="list-style-type: none"> <li>• Irrational or extreme fearful reactions to an object or situation (e.g., animals, heights, costume characters, and type of transportation)</li> <li>• Results in avoiding the objects or situations or in demonstrating distress when exposed to them in normal everyday life</li> <li>• Often the first sign of an anxiety disorder and can be associated with other anxiety disorders</li> </ul>
<b>Separation Anxiety</b>	<ul style="list-style-type: none"> <li>• Specific worry that something bad will happen to them or to their caregivers if they are apart (e.g., being in a different room in the house from their caregivers, falling asleep alone in their bed, going to school in the morning, attending a sleepover at a close friend's house, or worry when their caregivers are not home or late coming home)</li> <li>• They may be described as being clingy or easily homesick</li> </ul>
<b>Generalized Anxiety Disorder</b>	<ul style="list-style-type: none"> <li>• A variety of fears and worries about everyday life experiences (i.e., they often anticipate disaster [e.g., catastrophic thinking], worry about their health issues and financial status, as well as their families' health and finances, think about life and death, as well as family and interpersonal relationship problems, and feel intense academic pressures)</li> <li>• They may be described as being worriers, tense, uptight, inflexible, and perfectionistic</li> <li>• May feel as if "something bad will always happen," (if feelings of dread are extremely intense, may be misdiagnosed with depression)</li> <li>• May have problems falling asleep at night because of worry</li> <li>• Sometimes have problems focusing and concentrating in school because they are preoccupied with worry (if significant, may be misdiagnosed with attention-deficit/hyperactivity disorder)</li> </ul>
<b>Social Anxiety Disorder</b>	<ul style="list-style-type: none"> <li>• Fear or worry about their functioning in social interactions (i.e., they are extremely self-conscious and are afraid of being judged or humiliated in a social situation or doing something silly or embarrassing, frightened at the thought of becoming the focus of others' attention)</li> <li>• May be limited to specific settings (i.e., speaking in front of a group) or can be a global problem and affect them in 1:1 situations (i.e., ordering food in a restaurant and/or asking a safe stranger like a teacher a question or policeman for directions)</li> <li>• They are often considered to be shy, highly self-conscious, "slow to warm up," hesitant to talk in social settings, "soft spoken," and reluctant to ask others' questions, or may answer questions with short phrases and avoid making socially appropriate eye contact</li> <li>• Often have physical symptoms (i.e., blushing, sweating, trembling or shaking, or feeling nauseated or sick to their stomach) when they are confronting a social situation</li> </ul>
<b>Panic Disorder</b>	<ul style="list-style-type: none"> <li>• Experience panic attacks that are characterized by the sudden onset (within minutes) of intense fear that something bad is happening or going to happen or fear of losing control</li> <li>• The panic attack usually peaks in 10 minutes and lasts for approximately 15 to 30 minutes, but the effects of having had a panic attack can continue as the person worries about having another attack and what the attack could mean about their health, causing them to avoid situations associated with the feeling of panic</li> <li>• Physical symptoms of a panic attack may include shortness of breath, chest pain, sense of irregular heartbeat, heart beating too hard or too fast, increased breathing (hyperventilation) with tingling or numbness around the mouth and in the fingers, sweating, and shaking; although they feel life threatening, they are not dangerous</li> </ul>
<b>Obsessive Compulsive Disorder</b>	<ul style="list-style-type: none"> <li>• Characterized by obsessions, which are repeated and unwanted thoughts, urges, or mental images that cause anxiety, distress, and are linked to compulsive behaviors</li> <li>• Compulsive rituals seem to relieve the anxiety from these thoughts in the short run, but the child often spends a substantial amount of time obsessing or engaging in compulsions (more than 1 hour a day), which causes distress and daily dysfunction</li> <li>• Common obsessions include the following: fear of germs or contamination; unwanted, taboo thoughts about sex, religion, and harm to self or others; unwanted aggressive thoughts; and the need for things to be balanced, symmetrical, or in perfect order</li> <li>• Common compulsions include the following: excessive grooming and hand washing; ordering and arranging things in a particular and precise way; repeatedly checking on things such as whether the door is locked or whether the stove is off; and conducting mental rituals such as replacing a "bad thought" with a "good thought"</li> </ul>

# Assessment and Treatment

Regardless of the situation, when a child is having trouble handling their day-to-day life activities because of anxiety, they should be seen by a clinician for a complete assessment to see if treatment is recommended.

It is important that the clinician evaluating a child for an anxiety disorder is familiar with the diagnosis, life course, and treatment of anxiety disorders. Given the potential for the overlap of normal anxiety and anxiety disorders, some pediatricians, primary care doctors, school personnel, and mental health professionals may not understand what the anxiety disorders look like in children and may not fully recognize anxiety disorders as an important mental health problem.

Child and adolescent psychiatrists, physicians who specialize in the diagnosis and the treatment of mental health conditions in children and adolescents, are important members of your child's mental health care team, as they offer families the advantages of a medical education, the medical traditions of professional ethics, and medical responsibility for providing comprehensive care.

It is important to differentiate severe and ongoing anxious reactions to significant life events (i.e., "normal" anxious reactions to extreme life circumstance) from an anxiety disorder. Anxiety disorders require specific treatments and anxious reactions to extreme life circumstances are managed by providing children with safe, secure, and predictable environments and even treatment including psychological support. In both circumstances children having trouble handling their day-to-day life activities should be seen by a clinician for a complete assessment to see what kind of treatment is needed.

Because many of the symptoms of anxiety are experienced internally by a child (e.g., fear or worry), a caregiver may only recognize the functional impairment that the child is demonstrating; for example, difficulty falling asleep, not going to school, anxiety around performance situations, reluctance to engage in social activities and make friends, strong emotional reactions, and other avoidance behavior. A comprehensive evaluation by a clinician will likely include completing rating

scales and interviewing the parent and child about the child's internal symptoms and functional impairment. The clinician will work to understand the child's pattern of anxiety symptoms, level of avoidance, and family readiness to engage in treatment. They will also determine whether the child has other problems that might make the treatment plan more challenging.

The clinician will consider many factors in deciding what treatment is needed for a child with an anxiety disorder. After the clinician has evaluated a child, he/she should communicate the results of the evaluation, specific treatment recommendations and the reason behind treatment recommendations. Treatment recommendations often include specific recommendations about how the family can best engage and support the child, essentially becoming "coaches" who work with the child to "take on" their fears and worries.

While it is a big decision to enter a child into treatment for an anxiety disorder, it is important to understand that it is also a big decision to not engage in treatment. Clinical studies suggest children with an anxiety disorder do not get better with just support and longer-term studies suggest anxiety, if not treated, is associated with a number of poor life outcomes including the risk for depression, substance misuse, suicidal thoughts and behaviors, and difficulties with adapting and coping.

## Role of the Family in Assessment and Treatment

It is very important to have family involvement in the assessment and treatment of anxiety. Clinicians know about anxiety disorders in children, but they highly rely on the caregivers' active engagement in assessment and treatment to be able to do best by the child. The child's caregivers are the clinician's "eyes and ears." Treatment is much more effective when parents and clinicians work together to reduce the child's anxiety.



# Medication as a Tool for Treating Anxiety

The United States Food and Drug Administration (FDA) oversees the approval process to show that a medication is safe and effective for a specific condition (e.g., generalized anxiety disorder). After a medication has been approved by the FDA, clinicians can use the medication for the specific condition (i.e., on-label prescribing) or for any other condition where studies have proven them effective or the physician believes the medication can be effective and safe (i.e., off-label prescribing).

It is important to recognize that clinicians who practice high quality “evidence-based” medication treatment for children and

adolescents with anxiety disorders will often recommend and prescribe safe and effective medications “off label.” This is not a bad thing, as the medications have been proven to be effective and safe, even though they have not gone through the FDA approval process.

For childhood anxiety disorders, only one medication, duloxetine, has received FDA approval and can be prescribed “on label” for children 7 years of age and older with generalized anxiety disorder. However, a number of other medications have been proven to be safe and effective for treating the childhood anxiety disorders but have not gone through the FDA approval process.



It is important to recognize that clinicians who practice high quality “evidence-based” medication treatment for children and adolescents with anxiety disorders often will recommend and prescribe safe and effective medications “off label.”



The goal of treatment for a child is always remission (having few, if any symptoms) of the anxiety disorder.

### **What medications reduce anxiety and its symptoms consistently over time?**

Antidepressant medications represent the foundation of medication treatment for youth with anxiety disorders and OCD. Many of the medications that benefit anxiety disorders and OCD were initially recognized as medications for depression and thus, called antidepressants. The most effective antidepressant medications, selective serotonin reuptake inhibitors (SSRIs), and selective norepinephrine reuptake inhibitors (SNRIs), increase the effects of serotonin and norepinephrine, chemical neurotransmitters in the human body that help regulate anxiety, mood, and social behavior.

Antidepressant medications that have proven to be effective for childhood anxiety disorders that can be prescribed "on label" include duloxetine (Cymbalta™) and "off label" include sertraline (Zoloft™), fluoxetine (Prozac™), fluvoxamine (Luvox™), paroxetine (Paxil™), and venlafaxine ER (Effexor XR™).

### **What is the goal of treatment in a child or teenager with anxiety?**

The goal of treatment for a child is always remission (having few, if any symptoms) of the anxiety disorder. If remission is not achieved with either antidepressant

treatment or antidepressant treatment combined with psychological treatment, the clinician may consider a variety of approaches, including medication changes or adding other psychological interventions. It is important to keep in mind that it is okay if a medication change is suggested to reach the goal of remission because a child may respond better to the second medication. Changing the treatment in youth who do not respond to initial medication treatment has been shown to be beneficial.

### **What have studies on antidepressant medication use in children and adolescents with anxiety disorders shown?**

Nearly a dozen studies have evaluated antidepressant medications in children and adolescents with generalized, social, and separation anxiety disorders. **(Table 2)** In nearly all studies, youth who received antidepressant medication did better than those who received placebo (sugar pill). And those children who received a combination of medication and psychological treatment of anxiety did best. Likewise, in children with OCD, the SSRIs have been studied and are effective in reducing OCD symptoms. Studies that have compared SSRIs and psychotherapy in youth with OCD have generally shown that the combination of an antidepressant



medication and psychotherapy is far more effective than either psychotherapy or medication alone.

#### **How are medications chosen?**

A clinician will consider several factors in choosing whether to prescribe a specific medication for a child.

- Diagnosis
- Age of the child
- Medication effectiveness
- Side effects
- How quickly the medication works
- Interactions with other medications taken by the child
- Way in which the medication is taken (capsules, tablets, liquid)

#### **How long does medication take to work?**

Often, improvement from antidepressant medication begins in 2 to 4 weeks with additional improvement over 8 to 12 weeks. Some children show improvement at low doses of antidepressant medication very early in treatment, however, clinicians may increase the dose of the medication to ensure the child has the best chance

for remission. In the clinical studies of medication, the best treatment dose is often identified in 8 to 12 weeks of treatment, with symptoms continuously improving even after that. Studies suggest the beneficial effects of SSRI treatment—regardless of whether it is given with cognitive-behavioral therapy (CBT)—reach maximum benefit at 6–9 months of treatment.

#### **What medications are used occasionally for intense episodes of anxiety?**

Clinicians often use medications from different classes to address a specific experience of anxiety such as flying on a plane, giving a speech, or other performance activity. Some of these medications come from the class of benzodiazepines, such as lorazepam (Ativan™) and clonazepam (Klonopin™). Benzodiazepines are generally used for short term treatment. When used for long periods of time, some patients have difficulty stopping the medication and experience withdrawal symptoms.

Some clinicians will also use antihistamines such as diphenhydramine (Benadryl™) or hydroxyzine (Atarax™, Vistaril™) to reduce anxiety for short periods of time. Also, medications from the class of beta-blockers such as propranolol (Inderal™) have been used for performance challenges such as public speaking events.

In the clinical studies of medication, the best treatment dose is often identified in 8 to 12 weeks of treatment, with symptoms continuously improving even after that.



Table 2.

## Medications that may be used to treat anxiety disorders in children and adolescents.

Class	Medication (Brand name)	Common dose range (mg/day)	Tablet size (mg)	Common side effects	Serious side effects	Uncommon, serious side effects
<b>SSRI</b>	Citalopram/escitalopram (Celexa/Lexapro <sup>TM</sup> )	10/5–40/20	10/5, 20/10, 40	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Decreased appetite</li> <li>• Hyperactivity/restlessness</li> <li>• Vomiting</li> <li>• Increased anger/irritability</li> <li>• Sexual dysfunction</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Fluvoxamine (Luvox <sup>TM</sup> , Luvox CR <sup>TM</sup> )	100–300	25, 50, 100, 150	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Decreased appetite</li> <li>• Hyperactivity/restlessness</li> <li>• Vomiting</li> <li>• Increased anger/irritability</li> <li>• Sexual dysfunction</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Sertraline (Zoloft <sup>TM</sup> )	25–200	25, 50, 100	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Decreased appetite</li> <li>• Hyperactivity/restlessness</li> <li>• Vomiting</li> <li>• Increased anger/irritability</li> <li>• Sexual dysfunction</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Fluoxetine (Prozac <sup>TM</sup> , Sarafem <sup>TM</sup> )	10–60	10, 20, 40, 60	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Decreased appetite</li> <li>• Hyperactivity/restlessness</li> <li>• Vomiting</li> <li>• Increased anger/irritability</li> <li>• Sexual dysfunction</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Paroxetine (Paxil <sup>TM</sup> , Pexeva <sup>TM</sup> )	10–50	10, 20, 40	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Diarrhea</li> <li>• Decreased appetite</li> <li>• Hyperactivity/restlessness</li> <li>• Vomiting</li> <li>• Increased anger/irritability</li> <li>• Sexual dysfunction</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
<b>SNRI</b>	Venlafaxine ER (Effexor <sup>TM</sup> )	37.5–225	37.5, 75, 150, 225	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Insomnia</li> <li>• Restlessness</li> <li>• Sexual dysfunction</li> <li>• Headache</li> <li>• Dry mouth</li> <li>• Increased anger/irritability</li> <li>• Increased blood pressure</li> <li>• Increased heart rate</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Duloxetine (Cymbalta <sup>TM</sup> )	30–120	20, 30, 40, 60	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Insomnia</li> <li>• Restlessness</li> <li>• Sexual dysfunction</li> <li>• Headache</li> <li>• Dry mouth</li> <li>• Increased anger/irritability</li> <li>• Increased blood pressure</li> <li>• Increased heart rate</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
<b>Noradrenergic agent</b>	Atomoxetine (Strattera <sup>TM</sup> )	10–100	10, 18, 25, 40, 60, 80, 100	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Dry mouth</li> <li>• Increased anger/irritability</li> <li>• Increased blood pressure</li> <li>• Increased heart rate</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Atomoxetine (Strattera <sup>TM</sup> )	10–100	10, 18, 25, 40, 60, 80, 100	<ul style="list-style-type: none"> <li>• Headache</li> <li>• Insomnia</li> <li>• Dry mouth</li> <li>• Increased anger/irritability</li> <li>• Increased blood pressure</li> <li>• Increased heart rate</li> <li>• Muscle pain</li> <li>• Weight loss/gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
<b>Tricyclic antidepressant</b>	Cloimipramine (Anafranil <sup>TM</sup> )	75–250	25, 50, 75	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dry mouth</li> <li>• Weight gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
	Imipramine (Tofranil <sup>TM</sup> , Trofranil-PM <sup>TM</sup> )	75–250	10, 25, 50	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dry mouth</li> <li>• Weight gain</li> </ul>	<ul style="list-style-type: none"> <li>• Boxed warning—suicidal thinking and behavior in children, adolescents, and young adults</li> <li>• Potential for abnormal heart rhythm</li> <li>• Mania</li> </ul>	<ul style="list-style-type: none"> <li>• Serotonin syndrome</li> <li>• Bleeding problems</li> </ul>
<b>Benzodiazepine</b>	Alprazolam (Xanax <sup>TM</sup> , Alprazolam Intenso <sup>TM</sup> )	0.5–1.5	0.25, 0.5, 1, 2	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Clumsiness</li> <li>• Dry mouth</li> <li>• Dizziness</li> <li>• Abdominal pain</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Clonazepam (Klonopin <sup>TM</sup> )	0.5–3	0.5, 1, 2	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Clumsiness</li> <li>• Dry mouth</li> <li>• Dizziness</li> <li>• Abdominal pain</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Lorazepam (Ativan <sup>TM</sup> , Lorazepam Intenso <sup>TM</sup> )	1–2	1, 2	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Clumsiness</li> <li>• Dry mouth</li> <li>• Dizziness</li> <li>• Abdominal pain</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Lorazepam (Ativan <sup>TM</sup> , Lorazepam Intenso <sup>TM</sup> )	1–2	1, 2	<ul style="list-style-type: none"> <li>• Drowsiness</li> <li>• Clumsiness</li> <li>• Dry mouth</li> <li>• Dizziness</li> <li>• Abdominal pain</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
<b>Atypical anxiolytic</b>	Buspirone (Buspar <sup>TM</sup> )	15–60	5, 10, 15, 30	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Lightheadedness</li> <li>• Tiredness</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Buspirone (Buspar <sup>TM</sup> )	15–60	5, 10, 15, 30	<ul style="list-style-type: none"> <li>• Dizziness</li> <li>• Lightheadedness</li> <li>• Tiredness</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
<b>Anhistamine</b>	Diphenhydramine (Benadryl <sup>TM</sup> , Banophen <sup>TM</sup> , Diphenhist <sup>TM</sup> )	12.5–50	25, 50	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dry mouth</li> <li>• Decreased sweating</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Doxylamine (Unisom <sup>TM</sup> , WalSom <sup>TM</sup> )	12.5–50	25, 50	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dry mouth</li> <li>• Decreased sweating</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>
	Hydroxyzine (Atarax <sup>TM</sup> )	25–50	10, 25, 50	<ul style="list-style-type: none"> <li>• Sleepiness</li> <li>• Dry mouth</li> <li>• Decreased sweating</li> </ul>	<ul style="list-style-type: none"> <li>• Possible dependence</li> <li>• Withdrawal symptoms when used at high doses, especially when administered over long periods. Decreasing the dose gradually is a common strategy to decrease the risk of withdrawal symptoms.</li> <li>• Disinhibition</li> <li>• Memory impairment</li> <li>• Worsening depression</li> </ul>	<ul style="list-style-type: none"> <li>• Respiratory depression (possible at high doses and when combined with other central nervous system depressants)</li> </ul>

Adapted from Wilens, Hammerness. *Straight Talk about Psychiatric Medications in Kids* (Guilford Press, 2016).



### What is the FDA warning?

The FDA added a “boxed warning” to all antidepressant medications to alert prescribing physicians and patients that special care should be taken when using antidepressant medications in children, adolescents, and young adults. The warning states that antidepressant medications are “associated with an increased risk of suicidal thinking and/or behavior in a small proportion of children and adolescents, especially during the early phases of treatment.” Such “adverse events” (mostly suicidal thoughts) were reported by approximately 4% of all children and adolescents taking medication compared with 2% of those taking a placebo. More recent and larger studies suggest that the associated risk is even less. It is important to understand that it is not known why there is a small but somewhat greater risk for suicidal thoughts or behavior on medication than on placebo.

### What medications are used for occasional sleep problems in youth with anxiety?

Sleep is often a significant problem in youth with anxiety. Treatment of the anxiety disorder with antidepressants and/or CBT is often beneficial in reducing anxiety and restoring normal sleep patterns. If the child's anxiety is under very good control and falling asleep is still a problem, behavioral approaches should be tried next. If behavioral approaches are not successful there are different medications that help children with anxiety sleep better. Clinicians often pick among medications such as melatonin, antihistamines, antidepressants that sedate like mirtazapine, and even some medications specifically marketed for insomnia in adults such as zolpidem (Ambien™) and zaleplon (Sonata™). While medicines used in adults for insomnia may be useful in children, they have not been studied extensively in children.

### How is the medication dose selected and changed?

For the antidepressant medications, physicians select an initial dose based on studies that have evaluated the medication in children and adolescents. In general, children with anxiety are started on a low dose of medication, with incremental increases to reach the appropriate dose that offers the best chance for remission with minimal, if any side effects. Over the course of treatment, the caregiver and child will meet with the clinician regarding how the anxiety symptoms have changed and whether there are side effects. Some clinicians adjust doses more quickly (with more frequent check-in visits), and others may prefer a more gradual approach. “Going low and slow” is okay; however, it is important to understand that starting too low and going too slow may unnecessarily prolong a child's suffering. The common dose ranges for medications that are used to treat children with anxiety are shown in **Table 2**.

### How are side effects managed?

Antidepressants such as SSRIs and SNRIs can have various side effects, as shown in **Table 2**. It is important to discuss medication side effects with your

child's physician. Everyone worries about side effects but people and children with anxiety disorders are likely to worry more than others do. The presence of side effects is an important part of decision making for dose adjustments. Sometimes it is difficult to tell if the child is having a side effect or if it is the anxiety that is still impacting the child (e.g. stomachache).

Common side effects, which occur in approximately 10–20% of patients, include headaches, difficulty sleeping, appetite changes, abdominal pain, and diarrhea. Possible side effects, which may occur in 5% of patients, include weight gain, muscle pain, and common cold symptoms. Rare side effects, which occur much less frequently, include seizures, deliberate self-harm, abnormal heart rhythms, and mania. Suicidal thinking and behavior is discussed in the box to the left. It is important to know that this risk has not been shown in most studies of SSRIs in youth with anxiety disorders.

Perhaps of most concern to parents is whether the medication will change a child's behavior or personality in an unwanted way. In general, when SSRIs and SNRIs work well they reduce the child's anxiety greatly, and allow the child to function as they would if they were not anxious. It is important to know that the medications reduce anxiety, but don't solve all the problems a child might have.

Lastly, across all the SSRI and SNRI studies there is a common pattern of side effects that we call “activation syndrome”—an excessive and uncomfortable restlessness that occurs early in treatment or soon after a dose change. The activation may cause the child to be more irritable, impulsive, and overall more difficult to manage. Reducing the dose of medication or discontinuing it is the best management strategy until the activation symptoms go away. Since the activation symptoms most often occur early in treatment and at lower doses, it may be difficult to get a child to a full treatment dose if the medication seems to cause activation.

The usual strategy for managing side effects is to reduce the dose or discontinue the medication. However, adjusting the dose to minimize the side

effects may result in losing some of the benefit of the medication. It can be a delicate balance that a caregiver and the clinician have to manage together. If the clinician has to reduce the dose of the medication to reduce side effects and symptoms return, the clinician will review the treatment options with the caregiver so the child can have his/her best outcome. Switching medication is something that is commonly done when the first medication does not work or there are side effects.

### **How do I know the medication is working?**

The question of whether treatment—medication, psychological treatment, or the combination of the two—is working is best answered by observing whether a child's anxiety decreases in frequency and severity and the child appears overall more comfortable and able to do things. Parents, caregivers, and clinicians may also answer this question by examining

improvements in specific target symptoms, such as worrying excessively. In general, for kids with anxiety disorders, parents and caregivers will be able to observe that the child is able to do things now that they could not do before such as falling asleep quickly, spending the night at a friend's house, going to a party, attending school and camp, being around groups of people, going to malls or restaurants, etc. Anxiety-related physical symptoms (e.g., headaches, stomachaches, difficulty swallowing, etc.) will decrease or stop altogether.

### **How long should medication be continued?**

As caregivers and the child consider when to stop antidepressant treatment, it is important to recall that the end goal of treatment is having few if any symptoms. The child has the best chance of discontinuing treatment if they have experienced remission and functional recovery. Any discussion regarding if





and when to discontinue treatment should only happen then. Children with ongoing symptoms of anxiety and associated impairment may not be the best candidates for stopping their medication. Increasing their medication or psychological treatment to achieve remission before considering stopping treatment may be best.

While a specific timeframe is not known, some experts recommend discontinuing medication 6–12 months after remission has been achieved. A child who has successfully worked with his/her family in psychotherapy along with medication treatment or a child with a faster response to treatment (more likely with antidepressant plus psychotherapy) might be ready to discontinue medication treatment more quickly. It is important to keep in mind that there is no evidence suggesting that long-term antidepressant treatment is unsafe when medication is overall well-tolerated.

A risk of discontinuing medication is the chance that anxiety symptoms will return even in children who have recovered. Families should only consider stopping antidepressant treatment during periods of low stress and specifically not when the child might be expected to be most anxious. For example, stopping medication before school starts in the fall in a child with separation anxiety who struggled to go to school is probably not a good idea. Also, for some children with anxiety, seemingly low stress periods like family vacations or holidays may seem like a good time to stop medication but may actually be stressful and the resulting anxiety be mistakenly blamed on the medication discontinuation.

If a child has successfully come off medication, it can be useful to monitor the child off medication to ensure that subtle anxiety symptoms do not return, and the child maintains their functional recovery.



# Psychosocial Treatments for Anxiety

The clinician who assesses the child may recommend a specific psychological treatment such as cognitive-behavioral therapy (CBT), or a combination of CBT and medication, which are the evidence-based treatments for the childhood-onset anxiety disorders—specifically, separation, generalized and social anxiety disorders, and OCD.

The evidence-based psychological treatment (CBT) for the anxiety disorders and OCD begins with educating the child and family about the nature of the anxiety symptoms and how the symptoms may worsen over time, if not addressed effectively. For example, a child who is anxious, and copes by avoiding, may feel better in the short term but avoiding actually reinforces anxiety in the long term. After the child and family understand this important dynamic, the clinician

should engage the child in a process called “exposure and response prevention.” Exposure and response prevention treatment teaches the child two important things: 1) the fear or worry is not necessary for normal developmental tasks; and 2) with time, the fear or worry will go away or be better tolerated, and the child will learn how to cope without avoiding.

Although psychotherapy can be a very effective form of treatment for some children with anxiety disorders, this guide focuses on medication treatments. Other resources that discuss CBT in more detail are available. Also, psychotherapy may be used in combination with medication. Children who receive the combination of psychotherapy plus medication have fewer anxiety symptoms than children who receive medication only or psychotherapy only.

The evidence-based psychological treatment (CBT) for the anxiety disorders and OCD begins with educating the child and family about the nature of the anxiety symptoms and how the symptoms may worsen over time.





# Resources

- American Academy of Child & Adolescent Psychiatry (AACAP)  
[https://www.aacap.org/AACAP/Families\\_and\\_Youth/Resource\\_Centers/Anxiety\\_Disorder\\_Resource\\_Center/Home.aspx](https://www.aacap.org/AACAP/Families_and_Youth/Resource_Centers/Anxiety_Disorder_Resource_Center/Home.aspx)
- Anxiety and Depression Association of America  
<https://adaa.org>
- Centers for Disease Control and Prevention (CDC)  
<https://www.cdc.gov/childrensmentalhealth/depression.html>
- National Alliance on Mental Illness (NAMI)  
<https://www.nami.org/Find-Support/Family-Members-and-Caregivers>
- National Institute of Mental Health (NIMH)  
<https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml>
- <https://www.nimh.nih.gov/health/publications/anxiety-disorders-listing.shtml>



# Medication Tracking Form

Use this form to track your child's medication history. Bring this form to appointments with your provider and update changes in medications, doses, side effects and results.

Date	Medication	Dose	Side Effects	Reason for keeping/stopping

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