Bipolar Disorder

Parents' Medication Guide for Bipolar Disorder in Children & Adolescents

Prepared by:

American Academy
of Child and Adolescent
Psychiatry

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A Note from the American Academy of Child & Adolescent Psychiatry

Diagnosing and treating bipolar disorder in children and adolescents is a daunting task, even for the most experienced child and adolescent psychiatrist. Two decades ago, it was rare for a child or adolescent to be diagnosed with bipolar disorder. Research now suggests that for some, the symptoms of adult bipolar disorder can begin in childhood. However, it is not yet clear how many children and adolescents diagnosed with bipolar disorder will continue to have the disorder as adults. What is very clear is that obtaining a careful clinical assessment is utmost and critical to diagnosing bipolar disorder.

During the past decade, the number of children and adolescents diagnosed with bipolar bipolar disorder has increased significantly. Yet we do not understand why bipolar disorder is being diagnosed more frequently in children. We suspect that it is because of an increased awareness of the disorder as well as over diagnosis. However, we all agree that children who have issues with mood and behavior need help.

Recent research and clinical experience has provided child and adolescent psychiatrists with a better understanding of bipolar disorder and its symptoms.

There are still many unanswered scientific questions about how to best diagnose and treat bipolar disorder in children and adolescents. However, the body of research evidence and clinical consensus on this disorder is growing. The information contained in this medication guide reflects what medications child psychiatrists currently use when treating bipolar disorder during childhood and adolescence. The guide is intended to provide parents with the latest expert medical opinion about medications used to treat the symptoms of bipolar disorder.

The American Academy of Child & Adolescent Psychiatry (AACAP) cautions parents and healthcare professionals about the limitations of the information contained in this medication guide. While research is ongoing to better understand the benefits and risks of using these medications, only a limited number of these drugs have been approved by the U.S. Food and Drug Administration (FDA) for the treatment of bipolar disorder symptoms in children and adolescents.

This guide was developed by AACAP to give reliable information about medication used to treat bipolar disorder in children and adolescents to parents whose children have been diagnosed with the illness. AACAP also has produced other medication guides for parents, including a guide to medication for parents of children diagnosed with depression and a guide for parents whose children are diagnosed with attention-deficit/hyperactivity disorder, initiated by AACAP and the contributing organization.

This series of guides was initiated to help parents understand medication safety issues that were raised by the FDA.

For more information about the Parents Medication Guide series of publications, please visit http://www.parentsmedguide.org.

While the contents of this guide have been reviewed by members of AACAP as well as professionals from contributing organizations, AACAP takes full responsibility for the contents of this publication.

Laurence L. Greenhill, M.D.
President
American Academy of Child & Adolescent Psychiatry

Introduction

Bipolar disorder (formerly called manic-depressive illness) is an illness of the brain that causes extreme cycles in a person's mood, energy level, thinking, and behavior. The disorder was first described by French scientist Jules Baillarger in 1854 as "dual-form mental illness." Later in the 19th century, German psychiatrist Emil Kraepelin coined the term "manic-depressive psychosis." By the 1980s, the term bipolar disorder replaced manic-depressive illness as the name psychiatrists use to describe this condition.

Bipolar disorder is usually characterized by episodes of mania and depression, as well as a combination of the two at the same time called a mixed state. It is often first diagnosed during adolescence or in young adulthood; however, some people show symptoms of the illness in early childhood.

Bipolar disorder in children and adolescents is not an easy or certain diagnosis. This diagnosis is usually made by a mental health clinician who has evaluated and treated many, many children. It requires that the clinician take a detailed medical and psychiatric history and perform a thorough evaluation.

Many parents are challenged by a child who has extreme changes in mood, energy, thinking, and behavior. Careful evaluation will find that some of these children are suffering from a mental disorder. Yet, only a very few of those will have bipolar disorder.

While systematic data on the frequency of bipolar disorder among children are only now being collected, recent studies by the National Institute of Mental Health indicate that, overall, children have a lower rate of bipolar disorder than adults. However, the rate increases with age, reaching approximately 1 percent (1 in 100) by adolescence.[1] In adults, the rate of people who have some form of the disorder during their lifetime is approximately 4.4 percent (1 in 20).[2]

Even though this illness affects a significant number of children and adolescents, most of the research into the disorder has been conducted in adults. While the number of children and adolescents who are diagnosed with bipolar disorder is increasing, research into bipolar disorder in children and adolescents is limited. New research is now being conducted with children and adolescents to enhance early recognition, to help doctors accurately diagnose the disorder in children, and to evaluate age-specific therapies.

One important area of study is how best to define and diagnose bipolar disorder in children and adolescents. Defining bipolar disorder in children and adolescents continues to be an area where more research is needed.

Doctors currently diagnose children with the same criteria (or standards) used to diagnose adults. However, some psychiatrists believe that the symptoms of bipolar disorder in children and adolescents may not match those of adults. For example, one recent study found that some children with bipolar disorder experienced more enduring and rapidly changing symptoms of the disease than adults.[3]

"I've always been different from other kids. I've had the symptoms of bipolar disorder for as long as I can remember."

—a young adult with bipolar disorder

Because there are few large scale studies into the causes, symptoms, and treatment of bipolar disorder, only a limited amount of data are available for the doctors who diagnose and treat these patients.

Also, because of the differing opinions regarding diagnosis and treatment, experienced child and adolescent psychiatrists may not always agree on how to identify and treat children and adolescents with bipolar disorder. In addition, very young children are even more difficult to diagnose and treat.[4] Studies are now underway that will better help doctors recognize bipolar disorder in young people.

As with any health condition, making an accurate diagnosis requires a basic understanding of the nature of the condition, its causes, and symptoms. For this reason, this medication guide takes a conservative approach to diagnosis and treatment of bipolar disorder that is based on traditional standards that have been used for adults. This guide also lists the possible known causes and symptoms of bipolar disorder. This information is especially important for parents of children suspected of having this disorder because research on bipolar disorder in children and adolescents is still ongoing.

More children and adolescents are diagnosed with bipolar disorder now than in the past. The reason for this increase is unclear. Even during the last decade, the number of children and adolescents diagnosed with bipolar disorder has increased. Even so, the rate of bipolar disorder in children and adolescents is still below the rate of the disorder in adults.[5]

The aim of this guide is to inform parents about to how to obtain a complete psychiatric evaluation for their child and to provide a brief explanation of the various treatment options so parents can make knowledgeable decisions for their children.

This guide provides an overview of current treatment options. For example, medication treatment has proven to be more effective when accompanied by psychosocial treatment, such as lifestyle training, parental training, and psychotherapy (talk therapy). Therefore, a description of psychosocial treatments also is presented in this medication guide.

Regardless of whether your child is diagnosed with bipolar disorder or another type of mood disorder, treatment is available. Psychosocial treatment can help children learn to manage their symptoms and prevent reoccurrence, and, if appropriate, medications can help stabilize moods and behaviors.

For most children and adolescents with bipolar disorder, treatment can reduce the symptoms of the illness. Early recognition and treatment of bipolar disorder offers children and adolescents the best opportunity to develop normally.

For most adults, bipolar disorder is a long-term illness. Research suggests that the same holds true for children and adolescents with the illness. Therefore, ongoing treatment generally is strongly recommended.[6]

Information about symptoms, diagnosis, and treatment options for children and adolescents with bipolar disorder contained in the medication guide are based primarily on the American Academy of Child and Adolescent Psychiatry's (AACAP) *Practice Parameter for the Assessment and Treatment of Children and Adolescents with Bipolar Disorder.* The *Practice Parameter* is a publication written for mental health professionals and doctors to aid their clinical decision making.

Bipolar Disorder Defined

What is bipolar disorder?

Bipolar disorder is a brain disorder that causes severe or unusual shifts in mood, energy level, thinking, and behavior. For example, people with bipolar disorder often experience episodes of overly high "highs", extreme irritability, and depression. While everyone has good and bad moods and can feel irritable, the unprovoked and intense highs and lows of people with bipolar disorder can be unpredictable, extreme, and debilitating.[7]

For those with bipolar disorder, these mood swings or "episodes" take four forms: mania, depression, mixed episodes (when mania and depression occur together), and hypomania (primarily irritable moods).

Bipolar disorder occurs in all age groups, young and old. Until recently, bipolar disorder in children and adolescents was thought to be an extremely rare condition, but it may, in fact, be more common than previously thought.

However, not all children who have severe temper tantrums or moments of excessive moodiness, irritability, and overexcitement have bipolar disorder. For those with bipolar disorder, the mood cycles are prolonged, severe, and interfere with daily functioning.

What are the different types of bipolar disorder?

There are three primary types of bipolar disorder: bipolar I, bipolar II, and bipolar NOS (which stand for not otherwise specified).

The classic form of the illness is called bipolar I disorder. Bipolar I is characterized by recurrent episodes of mania and major depression.

People with hypomania (primarily irritable moods) that alternates with major depression are diagnosed as having bipolar II disorder.

Some children with bipolar I or bipolar II disorder have clearly defined episodes of mania and depression. Other children have constantly changing moods and severe irritability punctuated by brief periods of mania. Still other children have the symptoms of bipolar I or II, but only for a day or two. Because these children's symptoms do not last long enough to be classified as having bipolar I or II, they are sometimes given a diagnosis of bipolar disorder NOS.[8]

Together, bipolar I, bipolar II, and bipolar NOS are called bipolar spectrum disorders. For most people with bipolar disorder, there is a range (or spectrum) of mood states. For example, for manic episodes, the severity ranges from temperamental "ups and downs" to psychotic mania (a loss of touch with reality).[7]

A person who has four or more episodes of the illness in a 12-month period is diagnosed with rapid-cycling bipolar disorder.

There is little disagreement that children and adolescents who have issues with mood and behavior need help. Part of the debate surrounding bipolar disorder in children and adolescents stems from whether all children with these types of mood disturbances will go on to develop classic bipolar I or II disorder as adults and whether early treatment can prevent adult bipolar disorder.

A recent study reported that the majority of children with bipolar disorder continued to show some signs of the illness into adolescence.[9] Other studies also show that 60 percent of adults with bipolar disorder report having their first symptoms during adolescence or before.[10]

The Mood Symptoms of Bipolar Disorder

Mania: A distinct period of abnormally and persistently elevated, expansive, or irritable mood, which may be accompanied by greatly increased energy, optimism, and self-esteem.

Depression: Symptoms may include prolonged period of unhappiness, decreased interest in activities, diminished ability to enjoy things, a bleak outlook of life and oneself, decreased energy, and changes in appetite and sleep.

Mixed Mania (mixed state): When the symptoms of mania and depression occur together. Mixed mania affects children and women most often.

Hypomania: A persistent elevated or irritable mood. An absence of psychotic symptoms and a higher level of functioning differentiate hypomania from mania.

To be diagnosed with bipolar disorder, the mood symptoms must be extreme and not explained by another medical or mental health illness or substance abuse.

Causes & Symptoms

What causes bipolar disorder?

There is no single known cause of bipolar disorder; rather, many factors act together to produce the illness.

Most research points to genes inherited from parents as the leading contributor to bipolar disorder. For example, evidence clearly shows that bipolar disorder runs in families—having a parent with bipolar disorder leads to a 4- to 6-fold increased risk of developing the illness. This means that approximately 10 percent (1 in 10) of people who have a parent with bipolar I disorder will develop the illness themselves. The risk is even higher when the full spectrum of bipolar disorders is included.[11]

Scientists are currently working to identify which genes, or combinations of genes, influence the risk for bipolar disorder.

However, genes are not the only factor. Studies of identical twins (twins who share the same genes) show that other factors are involved. If bipolar disorder were caused exclusively by genes, an identical twin of someone with bipolar disorder would almost always have the illness themselves. Research shows this is not the case.[11] Other biological, social, and emotional factors also must play a role in the development of the disorder.

For example, clinical experience suggests that trauma or stressful life events can sometimes trigger an episode of bipolar disorder in people who are genetically vulnerable. In fact, new research has found that stress hormones may change the way genes function, allowing illnesses like bipolar disorder to emerge.[12]

What are the symptoms of bipolar disorder in children and adolescents?

The primary symptom of bipolar disorder is dramatic and unpredictable mood cycles with relatively normal periods of mood in between. The illness may have two strongly contrasting phases: mania and depression.

During manic episodes, symptoms may include:[13, 14]

Mood

- Elevated, high, or euphoric mood without a clear cause
- Irritable, angry, or raging mood that is out of proportion to any reasonable cause

Thinking

- Racing thoughts or having many thoughts at the same time
- Thoughts that jump from one idea to another without clear connection
- Distractibility or inability to concentrate
- Unrealistic and unshakable beliefs in one's abilities and powers

Energy

- Elevated energy
- Decreased need for sleep
- Increased activity level

Behavior

- Increased activity level that coincides with changes in mood, thought, or energy
- Speech that is faster, louder than usual, more difficult to interrupt (pressured speech), or jumps from one idea to another without clear connections (flight of ideas)
- Giddy, silly, goofy behavior that cannot be stopped despite negative consequences
- Angry behavior that results in destroyed property, physical aggression, yelling, or crying
- Inappropriate sexual behavior
- Poor judgment (daredevil acts, substance use, risky behaviors that are not typical)

According to the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR),* a manic episode is diagnosed if a person suffers from multiple diagnostic symptoms that last seven days or that require hospitalization. One of the mood symptoms must be irritability or elation to be diagnosed with mania. Also, these symptoms cannot be explained by other medical, neurologic, or mental health conditions and must impair or change the child's normal functioning.[14]

DSM Criteria

To be diagnosed with bipolar disorder, a child must have a distinct period of abnormally elevated or irritable mood and have three of the following symptoms: elevated self esteem, decreased need for sleep, more talkative than usual, overly fast thoughts, decreased attention, increased goal-directed activity, and excessive involvement in pleasurable but risky activities.

If the child's mood state is primarily irritable, he or she must have four of the above symptoms to meet the diagnostic criteria for bipolar disorder.

Adapted from: American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR).* Washington, DC: American Psychiatric Association, 2000.

During depressive episodes, symptoms may include:[12]

Mood

- Sad or empty moods
- Feelings of hopelessness or pessimism
- Feelings of guilt, worthlessness, or helplessness
- Loss of interest or pleasure in activities once enjoyed
- Aches and pains that are not caused by physical illness or injury
- Irritability

Thinking

- Thoughts of suicide or death or a suicide attempt
- Difficulty concentrating, remembering, and making decisions

Energy

- Decreased energy or a feeling of fatigue or of being "slowed down"

Behavior

- Restlessness or irritability
- Sleeping too much or not enough
- Unintended weight loss or gain
- Social isolation

A depressive episode is diagnosed if a person has a depressed mood or loss of interest or pleasure along with a number of the symptoms listed above that last most of the day, nearly every day, for two weeks or longer. In children and adolescents, the mood may be irritable rather than sad.

When depressed, children and adolescents often express their depression as physical complaints, such as headaches, stomachaches, or feeling tired. Signs of depression in children and adolescents also can include poor performance in school, social isolation, and extreme sensitivity to rejection or failure.

While many children and adolescents with bipolar disorder will appear irritable, irritability does not always indicate that a child has bipolar disorder. There are many reasons why a child may be irritable, including being tired or hungry. Also, children and adolescents who have depression or who have other mental disorders, such as ADHD, oppositional defiant disorder (ODD), or pervasive development disorder (PDD), may be very irritable.

While some media reports have described that bipolar disorder can be diagnosed using brain imaging scans (such as SPECT scans), research does not currently support these claims.

Currently, no biological test can determine if your child has bipolar disorder—not blood tests, genetic testing, or brain scans.

Children and adolescents who are undergoing an episode of mania or hypomania tend to have more mood changes than adults, making their diagnosis and treatment more difficult.[15]

In between mood episodes, children and adolescents can have periods normal moods and behaviors. These periods of normal behavior do not rule out the possibility that the child or adolescent may have bipolar disorder.

How do the symptoms of bipolar disorder differ from typical moods?

For many parents, it is sometimes difficult to think of their child's mood swings as an illness, even when the emotional reactions seem extraordinary or more severe than what other children experience. For this reason, it is critical that parents and the child's doctor be attuned to whether mood and behavior are significant departures from the child's normal behavior. It also is important to note how long the mood cycles last, how intense they are, and whether they impair functioning.

One way to distinguish bipolar mood cycles from normal mood swings is to ask:

- Are your child's mood shifts accompanied by extreme changes in thinking, energy, or activity levels?
- If your child's mood shift lasts only an hour or two, can it be explained by other factors?
- Do other people notice when your child's mood shifts?
- Do your child's mood shifts cause problems with his or her social and family life?

The answers to these questions may help a child and adolescent psychiatrist determine whether your child has bipolar disorder, another mood disorder, or mood and behavior that is considered normal for children and adolescents.

Ensuring an Accurate Diagnosis & Appropriate Treatment

1. Visit a board-certified child and adolescent psychiatrist with experience diagnosing and treating bipolar disorder in children and adolescents.
2. If the child is very young (a preschool child, for example), ask the doctor his or her experience in treating children, especially young children.
3. Give your child's doctor a complete medical history of your family and your child.
4. Make your child available to speak with his or her doctor at length and over time. Scheduling regular sessions with the doctor will help establish the course and pattern of the illness.
5. Keep a daily mood chart that records your child's moods.
6. Make your immediate family, as well as others who interact with your child, available to your child's doctor. Most doctors will want to speak to those who spend time with your child.
7. Allow time for a diagnosis to be made. Many times, an accurate diagnosis requires multiple visits to the doctor made over weeks or months.
8. Children suspected of having bipolar disorder also must be evaluated for other mental health issues, such as substance abuse, suicidal thoughts, and co-existing conditions.
9. Work with the doctor to monitor your child's progress. Schedule regular follow-up appointments to monitor treatment outcomes and side effects.
10. If you question the diagnosis or treatments recommended, get a second opinion.

Diagnosing Bipolar Disorder in Children and Adolescents

How is bipolar disorder in children and adolescents diagnosed?

Collecting a complete medical history that includes a family history as well as the child's current symptoms is the first step in making a mental health diagnosis—regardless of the disorder. Information from parents, teachers, and people who know the child also is important.

When diagnosing bipolar disorder, most experts recommend that parents consult a child and adolescent psychiatrist. Other healthcare professionals who are familiar with the symptoms and treatment of bipolar disorder in children and adolescents also can help with a diagnosis, especially if a child and adolescent psychiatrist is not available in your area.

"Getting a diagnosis was like turning on the lights after years of stumbling in the dark."

—a parent of a child with bipolar disorder

After collecting a medical history, most doctors will speak with the child to understand how he or she thinks and feels and to determine the type of problems the child is experiencing.

Because of the nature of this illness, it may take several visits before the doctor can determine whether your child has experienced a manic or depressive episode, or if other mental health issues, learning disorders, or if normal development can explain the symptoms.

A few children have symptoms so severe that the parents and the doctor agree that some type of treatment must begin immediately—even before a diagnosis can be confirmed. However, those situations are rare.

Obtaining an accurate diagnosis of any mental health disorder, including bipolar disorder, in very young children (preschoolers, for example) is extremely difficult. Preschool children with severe mood and behavioral issues should be screened for developmental disorders, parent-child issues, and temperamental difficulties as well as bipolar disorder.

A child and adolescent psychiatrist is a medical doctor who has completed at least three years of adult psychiatric residency and two additional years of child and adolescent psychiatry residency training.

How do I find a doctor who can evaluate my child?

A referrals from a primary healthcare providers is a good way to find a child and adolescent psychiatrist to diagnose and treat bipolar disorder. Unfortunately, there is a shortage of child and adolescent psychiatrists, and not all have experience treating childhood bipolar disorder.[16] For help finding a child and adolescent psychiatrist, click here.* The psychiatry department of the closest hospital also is a good resource for finding a qualified mental health professional to diagnose and, if appropriate, to treat bipolar in children and adolescents.

*http://www.aacap.org/cs/root/child_and_adolescent_psychiatrist_finder/child_and_adolescent_psychiatrist_finder

The importance of receiving a thorough psychiatric evaluation by a mental health professional qualified to diagnose bipolar disorder in children cannot be overstated. Ideally, a child and adolescent psychiatrist should be sought, even if travel is required.

If a child and adolescent psychiatrist is not available nearby, one located outside of your local community can make a diagnosis and help design a treatment plan. Follow-up care can then be provided by the child's local primary care provider.

If availability is a problem parents also can look for an adult psychiatrist who has experience treating children and adolescents. Other specialists who may be able to help diagnose and treat children suspected of having bipolar disorder include developmental and behavioral pediatricians, pediatric neurologists, neuro-developmental pediatricians, clinical child psychologists, and developmental psychologists.

Is bipolar disorder ever mistaken for another condition?

Bipolar disorder in children and adolescents can be mistaken for childhood depression (unipolar depression), ADHD, oppositional defiant disorder (ODD), conduct disorder (CD), mild autism, or, more rarely, anxiety disorders because some of the symptoms of childhood bipolar disorder overlap with the symptoms of these other conditions.

Children with depression, ADHD, ODD, or an anxiety disorder may be diagnosed with bipolar disorder if they do not respond to medication used to treat those disorders. Unfortunately, many childhood and adolescent psychiatric disorders do not always respond to the initial attempts at medication treatment. Therefore, children who do not respond to treatment can be misdiagnosed.[17, 18, 19]

Children with bipolar disorder can have high energy, short attention spans, and a low tolerance for frustration, just like children with ADHD. In fact, research shows that some children first diagnosed with ADHD may actually suffer from bipolar disorder, or a combination of bipolar disorder and ADHD.[17, 18, 19]

In addition, the reverse also is true. Some children with ADHD have been misdiagnosed as having bipolar disorder, especially if they have severe tantrums, irritability, or depression.

"I was diagnosed as having ADHD when I was a kid, but I didn't get any better on medication for ADHD. Later, when I was a teenager, my doctor told me I had bipolar disorder, and not ADHD like we first thought."

—a young adult with bipolar disorder

Children with oppositional defiant disorder (ODD), anxiety disorders, and autism can all show symptoms of irritability, agitation, and anger, which can be confused with bipolar disorder.[20]

Depression is another mental health issue that is commonly confused with bipolar disorder. Depression can be particularly difficult to differentiate from bipolar disorder because it is of the *one symptoms* of bipolar disorder.

In fact, many people with bipolar disorder have symptoms of depression first. Also, depressed children and adolescents often seem irritable, which can be a symptom of bipolar disorder.[21]

Tips for Distinguishing Between Bipolar Disorder and Other Disorders

Suspect bipolar disorder instead of ADHD if:

- Disruptive behaviors appear later in life (after 10 years of age)
- Disruptive behaviors come and go and tend to occur with mood changes
- The child has periods of exaggerated elation, depression, no need for sleep, and inappropriate sexual behaviors
- The child has severe mood swings, temper outbursts, or rages
- The child has hallucinations or delusions
- There is a strong family history of bipolar disorder

Suspect bipolar disorder instead of childhood depression if:

- The child experiences mania as well as depression
- The depressive episodes are severe rather than mild or moderate

Suspect bipolar disorder instead of oppositional defiant disorder (ODD) or conduct disorder (CD) if:

- Disruptive behaviors only occur when the child is having a manic or depressive episode
- Disruptive behaviors disappear when the mood symptoms improve
- Disruptive behaviors only occur periodically
- The child sleeps only a few hours at night and is not tired the next day
- The child has hallucinations or delusions
- There is a strong family history of bipolar disorder

Adapted from: Boris Birmaher, M.D., *New Hope for Children and Teens with Bipolar Disorder.* New York, NY: Three Rivers Press, 2004.

Disorders that Can Accompany Bipolar Disorder

What other disorders can accompany bipolar disorder?

Research shows that two-thirds of children diagnosed with bipolar disorder have at least one additional mental health or learning disorder.[1]

Having more than one condition at a time is called having a coexisting (or comorbid) condition.

Coexisting conditions can make diagnosing and treating bipolar disorder more difficult and create more challenges for a child to overcome.

According to several studies, the most common coexisting conditions with bipolar disorder in children and adolescents are ADHD, oppositional defiant disorder (ODD), and conduct disorder (CD). In fact, more than half of all children with bipolar disorder also may have ADHD.[22]

Rates of Mental Health Disorders that Can Coexist with Bipolar Disorder in Childhood and Adolescence[23]

Mental Health Disorder	Rate Coexisting with Childhood Bipolar Disorder (%)	Rate Coexisting with Adolescent Bipolar Disorder (%)
Attention-Deficit/Hyperactivity Disorder (ADHD)	70-90%	30-60%
Anxiety Disorders	20-30%	30-40%
Conduct Disorders (CD)	30-40%	30-60%
Oppositional Defiant Disorder (ODD)	60-90%	20-30%
Substance Abuse	10%	40-50%
Learning Disabilities	30-40%	30-40%

Can my child take medication for bipolar disorder if there is a coexisting condition?

If your child's doctor determines that your child has one or more coexisting conditions, a treatment plan should be developed to address each coexisting condition as well as the bipolar disorder.

Treatment plans for children and adolescents with bipolar disorder and a coexisting condition often include one or more medications as well as psychosocial treatment. For example, children with bipolar disorder and ADHD can have as good a response to stimulants as do children who only have ADHD. This is especially true if the symptoms of bipolar disorder are controlled first.[24]

However, more frequent monitoring for a reaction to the medication or a dependency on the medication is advised when treating children and adolescents with stimulant medications who have coexisting substance use disorders.

"Before I was diagnosed, I abused drugs. Now, I realize that I was self-medicating. I don't do drugs anymore."

—a young adult with bipolar disorder

Is substance use related to bipolar disorder?

Adolescents who have bipolar disorder are at higher risk for substance use. Also, the onset of bipolar symptoms appears to be a risk factor for developing an addiction to drugs or alcohol.

A recent study found the rate of substance use among adolescents with bipolar disorder was 6 times higher (24 percent compared to 4 percent) than among adolescents without mood disorders. The study also found that the increased rate of substance use could not be attributed to other mental health issues, such as ADHD or conduct disorder.[25]

If a problem with substance use arises, doctors should treat the bipolar disorder and the substance use at the same time. Recent research also supports this approach, finding that patients with bipolar disorder who abuse drugs or alcohol have more difficulty controlling the symptoms of the disorder than those who do not. These people are more likely to be extremely irritable, resistant to treatment, and to require hospitalization.[26]

If bipolar disorder is treated, the risk of having a substance use disorder can be decreased. In one study, lithium significantly reduced the risk of adolescents with bipolar disorder using substances of abuse. Lithium also improved the function of adolescents with bipolar disorder who had already developed an issue with substance use.[27]

Suicide and Children with Bipolar Disorder

How common is suicide among children and adolescents with bipolar disorder?

Suicidal thoughts and suicide attempts are common among children and adolescents with bipolar disorder. Research showed that during a one-year period, 44 percent of adolescents with bipolar disorder whose condition was untreated were suicidal at some point. The same research shows that 33 percent of children and adolescents with untreated bipolar disorder had made a medically significant suicide attempt at some time during their illness.[28] In addition, a Finnish study found that there is a slightly higher risk for suicide among boys than girls. This study also found an increased risk of suicide if the child partakes in substance or alcohol use.[29]

Is it okay to ask my child if he or she is feeling suicidal?

Yes. Ask about your child's mental state, especially if you notice that your child seems sad and withdrawn.[30] Some questions parents might want to ask their child are:

- Have you been feeling really down lately?
- Have you had thoughts about hurting yourself?
- Are you making plans to hurt yourself?

Your child's doctor can help develop a safety plan with specific recommendations to address suicidal thinking. In addition, parents should have phone number for emergency medical services and for their child's doctor as well as a record of their child's medications handy in case of emergency.

Parents must take children and adolescents who talk about suicide, or who are acting out in a potentially harmful way, very seriously. Contact the child's treating doctor with any information about suicidal thoughts or actions immediately.

Facts About Suicide

- Suicide is the third leading cause of death among 15- to 24-year-olds.
- Suicide is the sixth leading cause of death for 5- to 14-year-olds.
- Depression and suicidal feelings are treatable mental disorders.
- Talking to your child about their feelings and about suicide provides reassurance that somebody cares.

Adapted from: Boris Birmaher, M.D., *New Hope for Children and Teens with Bipolar Disorder.* New York, NY: Three Rivers Press, 2004.

Treating Bipolar Disorder

What types of treatment are available?

Although there is no cure for bipolar disorder, medicine along with psychosocial treatment can play a critical role in helping manage the symptoms of this illness. It also can help make your child's behavior more stable and predictable.

While medication may lessen the symptoms of bipolar disorder, psychosocial treatment in the form of family and behavioral therapy is equally as important in helping the child manage their illness. In fact, a study of adults with bipolar disorder found that people taking medications to treat bipolar disorder are more likely to get well faster and stay well longer if they also receive intensive behavioral therapy.[31] Most doctors agree that the same conclusion holds true for children, especially for those with significant emotional and behavioral issues.

"Before I started treatment, my personal life was in shambles. Since I was a kid, my life was always on the verge of falling apart. I didn't realize I had bipolar disorder. My parents didn't know either. They just thought I was a bad kid."

—an adult with bipolar disorder

One of the objectives of psychosocial treatment is to educate the family about the illness. This helps ensure the child stays on the treatment program. Therefore, psychosocial treatment is a key element in helping to prevent a relapse and promote healthy emotional growth and development. Also, a recent two-year study found that psychosocial treatment that emphasized interpersonal coping strategies helped patients with bipolar disorder control the symptoms of the disorder and function better in society.[32]

In most cases, psychosocial treatment includes teaching parents techniques to recognize the symptoms of bipolar disorder. It also includes teaching parents techniques to redirect their child's behavior toward more positive outcomes.

What are the consequences of leaving bipolar disorder untreated?

By far, suicide is the most dangerous consequence of leaving bipolar disorder untreated. In any given year, 44 percent of all adolescents with untreated bipolar disorder have been suicidal.[33] Have attempted suicide or had suicidal thoughts? For more information about the risk of suicide among children and adolescents with bipolar disorder, please see page 16 of this guide.

Also, children with bipolar disorder are more likely to have problems in school, at home, and with friends. Adolescents with the disorder are at risk for unplanned pregnancies, problems with authority and the law, difficulties finding a job, and substance use. Bipolar disorder also affects a child's normal psychosocial development.

Taking Medication for Bipolar Disorder

Will medication cure my child?

Unlike antibiotics and other medications that are taken for short periods of time to treat infections and other ailments, there is no medication that will cure bipolar disorder. However, there are medications that can help alleviate many of the symptoms of the illness. There also are psychosocial treatments that can help those with bipolar disorder better manage the condition.

What should I ask the doctor before deciding about medicine for my child?

Asking your child's doctor a lot of questions about the diagnosis and the proposed treatment plan is normal. Most doctors invite questions from parents and children, especially when medication is being prescribed.

Prepare questions for your child's doctor prior to the visit. A list of questions that might help you frame your discussion with your child's doctor can be found in Appendix IV of this publication (page 49).

How long does medication treatment usually last?

Bipolar disorder is a chronic condition that requires long-term treatment. Just like with diabetes or epilepsy, many people with bipolar disorder will require lifelong treatment. When children or adolescents show signs of improvement, or are in remission (showing "normal" functioning similar to the level from before the illness episode), parents should discuss the risks and benefits of stopping medication with the child's doctor.

Can over-the-counter or prescription medication interfere with medication for bipolar disorder?

Tell your child's doctor about all of the over-the-counter (OTC) and prescription medications, herbal supplements, and vitamins your child is taking. The doctor will let you know which medicines are safe to take along with medication for bipolar disorder. You also can ask the pharmacist about drug interactions before purchasing a non-prescription medication, supplement,

or vitamin, as dangerous drug interactions may occur. For example, patients taking lithium should not take nonsteroidal anti-inflammatory medications (including aspirin, Motrin®, Aleve®, Voltaren®, Naprosyn®, Celebrex®, ibuprofen). Nonsteroidal anti-inflammatory medications have been shown to increase lithium levels, which can lead to lithium toxicity. Please consult your doctor about which anti-inflammatory medications are safe to take while on lithium.

For a medication guide to nonsteroidal medications, please visit: http://www.fda.gov/CDER/drug/infopage/COX2/NSAIDmedguide.htm

What can I do if the medication is not working?

If medication is working properly, you will know because your child or adolescent's moods and behaviors will have significantly improved. Finding the correct medication and dosage for children and adolescents with bipolar disorder takes time. Even once the proper medication and dosage is determined, it can take many weeks or longer to see results. For some medication, it can take 2 months or longer before families will start seeing improvement in mood and behavior.

If your child's symptoms are not better after being on a full therapeutic dose of a traditional mood stabilizer for 8 weeks or more, or an atypical antipsychotic for 3 to 4 weeks or more, talk to your child's doctor. The prescribing doctor may consider switching medications, adding another medication, or adjusting the dose.

Choices in Medication

What medications are usually prescribed for children and adolescents?

Mood stabilizers (which include several different types of medications) and atypical antipsychotics are the most often prescribed medications to help control symptoms of bipolar disorder. These medications are usually most effective when they are used in combination and accompanied by psychosocial treatment.

"Since finding the correct medication, my child has not been as depressed or moody. He is not having morbid thoughts. He is able to sleep at night and his performance in school has been much better."

—a parent of a child with bipolar disorder

To date, the FDA has indicated risperidone (Risperdal®), quetiapine (Seroquel®), and aripiprazole (Abilify®) for use in children aged 10 and older with bipolar disorder. These medications have been approved to treat mania and mixed mania. Lithium (Eskalith®, Lithobid®) has been approved for adolescents aged 12 and older. Olanzapine (Zyprexa®) has been approved for adolescents aged 13 and older. Aripiprazole and lithium also are approved as treatments to prevent the recurrence of bipolar symptoms.

In addition to the medications approved for children and adolescents, it is also possible that your child may be treated with a medication that is only FDA approved for *adults* with bipolar disorder. The evidence that these medications are safe and effective in children and adolescents is more limited than in adults. Prescribing medications for a use or for an age-group other than what they were approved for is called "off label" use.

While primary care doctors or pediatricians may prescribe these medications, it is recommended that children and adolescents diagnosed with bipolar disorder see a child and adolescent psychiatrist for a consultation before proceeding with medication.

Some of the more common medications used to treat the symptoms of bipolar disorder in children and adolescents include:

Traditional Mood Stabilizers

Traditional mood stabilizers include lithium and antiseizure medications. Lithium is one of the most commonly prescribed traditional mood stabilizers.

LITHIUM (ESKALITH®, LITHOBID®):

This medication is a naturally occurring salt that has been used since the 1950s to treat mania and prevent mood cycling in adults. It also is the most well studied mood stabilizer in children and adolescents. Lithium is most often effective in controlling mania and preventing the recurrence of both

manic and depressive episodes. Lithium is currently approved by the FDA for the treatment of manic episodes of bipolar disorder in patients aged 12 years and older. This medication is not effective in treating serious oppositional behaviors or irritability unless bipolar disorder is the underlying cause.

Some side effects children and adolescents may experience from taking lithium include nausea, diarrhea, abdominal distress, sedation, difficulty concentrating, trembling hands, increased thirst and urination, weight gain, and acne.

Staying on lithium can be particularly problematic for adolescents who find the possibility of weight gain and acne poor incentives for continued treatment. For children taking lithium, it is important to drink plenty of fluid, especially when it is hot or when exercising a lot, to avoid high concentrations of lithium caused by dehydration.

Lithium levels should be monitored regularly. Side effects and toxicity can occur at therapeutic levels or at those only slightly higher than desired. Blood tests that measure lithium levels should be conducted frequently when first starting medication and every three months during maintenance therapy.

Mild to Moderate Side Effects

- Trembling hands
- Nausea
- Increased urine output
- Blurred vision
- Some loss of coordination
- Slurred speech
- Acne
- Hair loss
- Weight gain

Rare but Serious Side Effects

- Vomiting
- Convulsions
- Uncontrolled jerky movements in arms and legs (tardive dyskinesia or TD)
- Stupor
- Seizures
- Coma

If any of these severe symptoms develop, or if your child appears drunk (nausea, vomiting, unsteady steps, slurred speech, or confusion), your child may have very high levels of lithium in his or her bloodstream and medical care should be sought immediately. High levels of lithium may progress into abnormal muscle movement, inability to pass urine, seizures, and coma.[34]

Very young children (aged 6 and younger) are more prone to develop neurologic side effects, such as confusion and loss of coordination, especially during the initial phase of lithium treatment.[35] Patients also may develop more serious neurological symptoms, such as coma or seizures, if lithium blood levels are too high.[36]

Lithium should not be administered to children and adolescents who have serious kidney problems. Lithium should be administered with caution to children and adolescents who have a history of cardiac, thyroid, and seizure problems.

Long-term Concerns

Long-term lithium use can lead to decreased thyroid function (hypothyroidism), which can cause slowed movements, depressed mood, new sensitivity to cold, and weight gain as well as and increasing the risk of developing high parathyroid function (hyperparathyroidism) causing increased urination and possible kidney stones.

Medication Interactions

Medications that can interact with lithium include ibuprofen (Advil®, Motrin®), naproxen (Aleve®), diuretics, SSRI antidepressants (Prozac®, Luvox®), some blood pressure medications (Enapril®, Captopril®), and the antibiotic metronidazole (Flagyl®). These medications can increase lithium blood levels. Make sure your doctor has a complete list of both prescription and over-the-counter medications your child takes regularly or occasionally. Also be sure to tell other doctors who may prescribe for your child that he or she is taking lithium.

Antiseizure Medication

Antiseizure medication (also called anticonvulsants) were first developed to combat epilepsy. Some antiseizure medications have been used by psychiatrists after doctors noticed the positive effect they had on the symptoms of bipolar disorder. These medications can have mood-stabilizing effects and may be especially useful for the acute treatment and the prevention of further episodes of bipolar disorder. Some of the most commonly prescribed antiseizure medications include:

VALPROATE (DEPAKOTE®, DEPAKENE®):

This medication was first introduced in the U.S. in 1978 as an antiseizure medication. It is currently approved by the FDA for the treatment of seizures, migraine headaches, and manic episodes of bipolar disorder in adults.

Mild to Moderate Side Effects

Valproate may produce the following mild to moderate side effects in children and adolescents:

- Nausea
- Increased appetite
- Weight gain
- Sedation
- Increase in lipids (fats in the blood)
- Low blood platelet count
- Hair loss
- Tremor
- Vomiting

Rare but Serious Side Effects

In rare cases valproate can cause in inflammation of the pancreas called pancreatitis.[37] Signs of pancreatitis include severe abdominal pain, nausea, vomiting, fever, and tiredness. There is a rare chance that this medication may induce irreversible liver damage leading to liver failure.[38] Signs of liver problems include excessive bruising, bleeding, nausea, vomiting, stomach discomfort, a yellow tinge to the skin, and dark-colored urine. These symptoms should be reported to your child's doctor immediately. Valproate also may cause an increased parathyroid function (hyperparathyroidism). This disorder causes an increase in calcium in the bloodstream resulting in increased urination and possible kidney stones. High blood sugar (diabetes mellitus) is another rare but serious side effect from valproate.

Increased Risk of Polycystic Ovarian Syndrome

In addition, this medication is associated with polycystic ovarian syndrome (PCOS), an endocrine disorder found in women and adolescent girls. Common symptoms of PCOS include irregular or absent menstruation, lack of ovulation, weight gain, high blood sugar, unwanted hair growth, and acne. Girls who are treated with valproate should have a baseline assessment of menstrual cycles, weight, and be monitored for the symptoms of PCOS throughout treatment. Girls who take valproate and have the symptoms of PCOS should have their serum testosterone levels checked as a diagnostic tool.

Suicide Prevention

Research in adults has shown that valproate does not protect against developing suicidal thoughts as well as lithium. Studies have concluded that there is a higher rate of suicide among people treated with valproate than among those treated with lithium.[39] In addition, the FDA has found that this medication may lead to an increase in suicidal thoughts for some people. For more information about the risk of suicidal thoughts while taking antiseizure medication, click here.

CARBAMAZEPINE (TEGRETOL®):

This antiseizure drug was first introduced in the U.S. in 1968 to treat seizures. It also has proven effective for treating mania in adults;[40] however, studies have not been conducted to show that it is an effective treatment for children and adolescents. Most psychiatrists do not recommend this as a first-line treatment for bipolar disorder in children and adolescents because of its side effects.

Mild to Moderate Side Effects

Mild to moderate side effects from carbamazepine include:

- Sedation
- Ataxia (unsteady movements)
- Dizziness
- Blurred vision
- Nausea
- Vomiting
- Extreme exhaustion and problems with memory and other mental activities
- Nystagmus (twitching of the eyes) is a sign that the dosage has been increased too quickly. This condition can be reversed by lowering the dose

Rare but Serious Side Effects

Rare but serious side effects include irregular heart beat, the loss of cells or platelets in the blood, and a disruption of normal thyroid function (hypothyroidism and hyperparathyroidism).

There is a rare chance that this medication may induce irreversible liver damage leading to liver failure. Signs of liver problems include excessive bruising, bleeding, nausea, vomiting, stomach discomfort, a yellow tinge to the skin, and dark-colored urine. These symptoms should be reported to your child's doctor immediately.

In addition, carbamazepine has been known to cause potentially serious blood disorder (neutropenia) in some rare cases. Signs of a serious blood disorder include fever, sore throat, rash, and easy bruising or bleeding. These symptoms should be reported to your child's doctor immediately.

Carbamazepine also is associated with an increased risk for developing a serious and potentially life-threatening rash called Stevens-Johnson syndrome. Stevens-Johnson syndrome is an allergic reaction that can occur when taking antiseizure medication, including carbamazepine. See page 32 for an expanded description of the symptoms of Stevens-Johnson syndrome.

Long-term Concerns

Long-term use of carbamazepine can lead to problems with vision. Some patients also have issues with exhaustion and have cognitive difficulties, such as memory loss.

Suicide Prevention

The FDA also found that this drug may increase the risk of having suicidal thoughts. For more information about the risk of suicidal thoughts while taking antiseizure medication, click here.

OXCARBAZEPINE (TRILEPTAL®):

This antiseizure medication is very similar to carbamazepine (Tegretol®), but with fewer side effects. A recent study showed the drug was not effective for mania in children and adolescents.[41] However, some children and adolescents respond well to this medication.

Mild to Moderate Side Effects

Mild to moderate side effects from oxcarbazepine include:

- Dizziness
- Drowsiness
- Blurred or double vision
- Fatigue
- Headaches
- Nausea
- Stomachache
- Vomiting

Rare but Serious Side Effects

Oxcarbazepine can cause a disturbance in the level of salts in the blood (hyponatremia), so blood sodium levels should be tested if the patient complains of severe fatigue. A craving for salty foods (such as potato chips) and increased impulsiveness have also been noted. Concentration loss also can be a frequent side effect.

Another rare but potentially life-threatening side effect is Stevens-Johnson syndrome. This syndrome is a potentially life-threatening allergic reaction that can occur when taking antiseizure medication, including carbamazapine. See page 32 for an expanded description of the symptoms of Stevens-Johnson syndrome.

Suicide Prevention

The FDA also found that this drug may increase the risk of having suicidal thoughts. For more information about the risk of suicidal thoughts while taking antiseizure medication, click here.

LAMOTRIGINE (LAMICTAL®):

A newer antiseizure medicine that can be effective in preventing the recurrence of manic and depressive bipolar episode in adults. Because lamotrigine (Lamictal®) only helps prevent depressive episodes, it is best used in combination with lithium or another mood stabilizer.

Mild to Moderate Side Effects

Mild to moderate side effects in children and adolescents from lamotrigine include:

- Mild sedation
- Decreased concentration
- Headache
- Blurred vision
- Weight gain (unlikely or mild)

Rare but Serious Side Effects

Rare but serious side effects associated with lamotrigine include an increased risk of developing diabetes and having low white blood cell count (neutropenia).

Lamotrigine is associated with an increased risk for developing a serious and potentially life threatening rash called Stevens-Johnson syndrome. Stevens-Johnson syndrome is a potentially life-threatening allergic reaction that can occur when taking antiseizure medication.

In addition, lamotrigine is often combined with valproex sodium or valproic acid (Depakote®, Depakene®)—a combination that increases the risk for developing Stevens-Johnson syndrome. This combination of medications should be prescribed with caution. See page 32 for an expanded description of the symptoms of Stevens-Johnson syndrome.

Suicide Prevention

The FDA also found that this drug may increase the risk of having suicidal thoughts. For more information about the risk of suicidal thoughts while taking antiseizure medication, click here.

Atypical Antipsychotics & Their Side Effects

Atypical antipsychotics (also called new-generation or second-generation antipsychotics) were initially developed to treat schizophrenia, but have been shown beneficial for bipolar disorder, either taken alone or in combination with a mood stabilizer to treat the acute symptoms of mania. Studies are not conclusive as to whether these medications will help to prevent future episodes of bipolar disorder. Some of the more commonly prescribed atypical anti-psychotic medications include:

- **RISPERIDONE (RISPERDAL®):**
  The FDA-indicated atypical antipsychotic drug for the short-term treatment of acute mania or mixed episodes associated with bipolar I disorder in children and adolescents aged 10 to 17 years.[42, 43]
- **ARIPIPRAZOLE (ABILIFY®):**
  FDA-indicated medication used to treat the symptoms of acute mania or mixed episodes associated with bipolar I disorder in children and adolescents aged 10 to 17 years.[44] This medication also is approved to help prevent reoccurrence of bipolar disorder in children and adolescents as well as adults.
- **OLANZAPINE (ZYPREXA®):**
  The first antipsychotic medication indicated for the treatment of mania and mixed episodes symptoms of bipolar I disorder in adults. A recent study among adolescents aged 13 to 17 showed that this medication was effective in controlling the acute symptoms of bipolar I disorder leading to its approval by the FDA for teenagers as second line agent because of the metabolic effects.[45] This medication also is approved to help prevent reoccurrence of bipolar disorder in adults.
- **QUETIAPINE (SEROQUEL®):**
  FDA indicated to treat the symptoms of both mania and depression in adults with bipolar disorder. A recent study among children and adolescents aged 10 to 17 showed that this medication was effective in controlling the acute manic symptoms of bipolar disorder children and adolescents.[46]
- **ZIPRASIDONE (GEODON®, ZELDOX®):**
  Indicated to treat the manic symptoms of bipolar disorder in adults. A recent study among children and adolescents aged 10 to 17 years old showed that this drug was effective in controlling the acute symptoms of mania and mixed mania.[47] Ziprasidone, however, is not FDA approved to treat children and adolescents 17 years of age or younger.
- **OLANZAPINE/FLUOXETINE (SYMBYAX®):**
  Combines an atypical antipsychotic with an antidepressant. This medication was indicated in 2003 for the treatment of the depressive episodes of bipolar I disorder in adults.[48]
- **ASENAPINE/SAPHRIS®:**
  Approved to treat acute treatment of manic or mixed episodes associated with bipolar I disorder in adults.*

*http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm177401.htm

Atypical antipsychotics also are widely used in child and adolescent psychiatry to treat aggressive behaviors in children with autism, schizophrenia, aggressive behavior, and Tourette syndrome. For example, in addition to being approved for children and adolescents aged 10 to 17 with bipolar mania or mixed mania, aripiprazole, risperidone, and olanzapine have been approved for treatment of schizophrenia in adolescents aged 13 to 17. Also, risperidone and apripiprazole are approved to treat the aggression and irritability associated with autistic disorder in children and adolescents aged 6 to 17.

It appears that children and adolescents are more sensitive to the side effects of medications used for bipolar disorder than are adults. This may be especially true for atypical antipsychotic medications.[49] These medications should be administered with caution to children and adolescents who have a history of severe heart problems, seizures, liver or kidney disorders, or tardive dyskinesia (TD). Caution also should be taken when giving a child or adolescent other medication while he or she is taking an atypical antipsychotic. Antihypertensive medications (such as Aldomet®, Procardia®, Vasotec®, and Lasix®) can cause a sudden drop in blood pressure. Over-the-counter cold and allergy medications may cause an increase in the sedative effects of atypical antipsychotic medication. In addition, caffeine and cigarettes can reduce the effectiveness of atypical antipsychotics. Ask your child's doctor about potential drug interactions before taking any prescribed or over-the-counter medications.

Mild to Moderate Side Effects

Mild to moderate side effects common among atypical antipsychotics include:

- Akathisia (restlessness)
- Dizziness or fainting spell due to decrease in blood pressure when standing up (orthostasis)
- Increased appetite
- Weight gain
- Tiredness
- Drowsiness
- Nausea
- Heartburn
- Night tremors
- Decreased sexual interest

Rapid weight gain is a well-recognized side effect from most atypical antipsychotics medications. If your child has gained weight while taking an atypical antipsychotic, consult with your child's doctor and a dietician to create a plan that helps manage weight gain. Encourage your child to exercise and offer him or her healthy food choices. More information about medication weight gain can be found on page 50 of this guide.

Rare but Serious Side Effects

People who take aripiprazole (Abilify®), olanzapine (Zyprexa®), and risperidone (Risperdal®) are at an increased risk for Parkinsonian side effects (such as, tremor and muscle stiffness). Also, changes in the electrocardiogram have also been observed, especially with ziprasidone (prolongation of the QTc interval).

In addition, many atypical antipsychotics medications increase the risk for seizures, especially at high doses. Patients with epilepsy should be closely monitored while taking these medications.

One of the most serious side effects of these medications is neuroleptic malignant syndrome (NMS). NMS is a rare but life-threatening reaction to atypical antipsychotic medication. It consists of marked muscle stiffness, high fever, racing heart beat, fainting spells, and a general sense of feeling very ill. This syndrome is more likely to occur when high doses of antipsychotic medication are prescribed, or when the dose is increased rapidly. If your child or adolescent is taking an atypical or typical antipsychotic and is active in sports or plays outside on very hot days, make sure he or she drinks plenty of liquids. NMS is a medical emergency and requires immediate medical attention and hospitalization.

Long-term Concerns

Specific adverse effects of atypical antipsychotics in children and adolescents that pose long-term concerns include tardive dyskinesia (TD), a potentially irreversible syndrome of involuntary muscle movements that occurs in fewer than 5 in 1000 children and adolescents per year,[50] weight gain, and changes blood fats and blood sugar, as well as an increase in the level of the hormone prolactin.[51] Prolactin is a hormone that influences sexual development and functioning in adolescent boys and girls, and reproduction in women and adolescent girls. High levels of prolactin can suppress ovulation in women.

Metabolic Syndrome

Metabolic syndrome is a collection of risk factors that increase the likelihood of a person developing cardiovascular disease and/or diabetes. Many who take atypical antipsychotics have problems with metabolism, including weight gain, high blood sugar (causing diabetes), and high blood fat (lipids) are potential side effects that pose serious health risks. Obesity also can cause negative effects on self esteem and body image. Children and adolescents are particularly sensitive to weight gain associated with atypical antipsychotics. Atypical antipsychotics differ in their short- and long-term effects on weight gain. Some research suggests that most of the weight gain occurs within the first 6 months of taking an atypical antipsychotic.[52] However, this can vary depending on the medication and the person taking it.

Typical Antipsychotics & Their Side Effects

Typical antipsychotics (also called neuroleptics, old-generation, or first-generation antipsychotics) were first developed to treat schizophrenia. Some common typical antipsychotics include haloperidol (Haldol®), chlorpromazine (Thorazine®), perphenazine (Trilafon®), and molindone (Moban®). These medications have been shown effective in adults for treatment of bipolar mania as well as bipolar psychosis. While some children and adolescents are still prescribed typical antipsychotics, most child and adolescents psychiatrists prefer to use atypical antipsychotics.

Typical antipsychotics are associated with high rates of side effects, such as muscle stiffness, and tremor, restlessness of the legs (akathisia), involuntary muscle movements [tardive dyskinesia], and high levels of prolactin (a hormone that affects sexual development and function). The risk of these side effects is greater in children than in adults.[53]

Neuroleptic malignant syndrome (NMS) is a serious side effect of these medications. NMS is a rare but life-threatening reaction to antipsychotic medication. It consists of marked muscle stiffness, high fever, racing heart beat, fainting spells, and a general sense of feeling very ill. This syndrome is more likely to occur when high doses of antipsychotic medication are prescribed, or when the dose is increased rapidly. If your child or adolescent is taking a typical or atypical antipsychotic and is active in sports or plays outside on very hot days, make sure he or she drinks plenty of liquids. NMS is a medical emergency and requires immediate medical attention and hospitalization.

There are no large clinical trials that show that typical antipsychotics are safe and effective in children and adolescents with bipolar disorder. For this reason, typical antipsychotics are not commonly used to treat the symptoms of bipolar disorder.

Antidepressants & Sleep Aids

Other medications also can be prescribed to help with the treatment of depression, ADHD, anxiety, or to aid sleep. In most cases, these medications are taken along with an atypical antipsychotic or a mood stabilizer.

Some of the medications that may be prescribed for the collateral symptoms of bipolar disorder in children and adolescents include:

- Antidepressants in combination with a mood stabilizer: Sometimes antidepressants are prescribed to treat the depressive phase of bipolar disorder or to treat a coexisting condition, such as anxiety. There is a risk of reemergence of manic symptoms if antidepressants are prescribed without a mood stabilizer. Research has not been conducted to determine how to best treat

anxiety and depression associated with bipolar disorder in children and adolescents. However, in one large study of adults with bipolar disorder, data showed that antidepressants are not effective in treating the symptoms of bipolar disorder.[54] Some of the more commonly prescribed antidepressants include bupropion (Wellbutrin®) and Selective Serotonin Reuptake Inhibitors (SSRIs), including fluoxetine (Prozac®), citalopram (Celexa®), escitalopram (Lexapro®), sertraline (Zoloft®), fluvoxamine (Luvox®), and paroxetine (Paxil®). For more information about the treatment of depression, please see the Parent's Medication Guide for depression at: http://www.ParentsMedGuide.org

- Medications for insomnia that may be prescribed to aid sleep include melatonin, zolpidem (Ambien®), zaleplon (Sonata®), eszopiclone (Lunesta®), ramelteon (Rozerem®), clonazepam (Klonopin®) and lorazepam (Ativan®). Most of these medications are prescribed on a short-term basis because they can be habit forming. Also, these medications are typically not prescribed for children.
- Clonidine was first developed as a medication for high blood pressure. Over the years, doctors have found this medication helpful in managing impulsivity, aggression, and agitation in children and adolescents with behavioral disorders. This medication also can be prescribed for insomnia and to relieve involuntary muscle movement.

Ineffective Medications

The following antiseizure medications have not been shown to effectively treat mania or depression associated with bipolar disorder include: gabapentin (Neurontin®), topiramate (Topamax®), levetiracetam (Keppra®), zonisamide (Zonegran®), pregabalin (Lyrica®), and tiagabin (Gabitril®). However, these medications can be prescribed to treat coexisting condition in children and

Glossary of Terms Used to Describe Common Side Effects from Medication for Bipolar Disorder

Akathisia is a syndrome characterized by inner restlessness that causes an inability to sit or stand still.

Ataxia is a neurological disorder that causes a lack of coordination of muscle movements.

Diabetes (also called diabetes mellitus) is a metabolic disorder that causes unusually high blood sugar levels. Diabetes develops when the body stops producing insulin or becomes resistant to insulin.

Dyskinesia is a symptom that causes involuntary movements.

Hypothyroidism is caused by the inability of the person's body to produce enough thyroid hormone. This condition causes fatigue, poor muscle tone, and sensitivity to cold.

Hyperparathyroidism is caused when the parathyroid glands secrete too much hormone. Excess hormone triggers the release of too much calcium into the bloodstream. As a result, bones may lose calcium, and too much calcium may be absorbed from food. The levels of calcium may increase in the urine and cause kidney stones.

Hyponatremia is a disturbance of the salts in the blood. This condition can cause nausea, vomiting, and headache.

Lipids are naturally occurring molecules in the blood, such as fats, oils, and vitamins. Lipids help the body store energy.

Metabolic Syndrome is a medical condition that can include increased blood pressure, weight, blood sugar, and blood fat (lipids).

Neuroleptic malignant syndrome is a rare but serious, life-threatening reaction to atypical antipsychotic medication. It consists of marked muscle stiffness, high fever, racing heart beat, fainting spells, and a general sense of feeling very ill.

Neutropenia is a disorder of the blood that is characterized by abnormally low number of certain type of white blood cells. Neutropenia can make people more susceptible to infection.

Nystagmus is a condition that causes the eyes to twitch.

Orthostasis is a sudden fall in blood pressure (the force exerted when the blood circulates) when standing up. This disorder can cause faintness, dizziness, lightheadedness, and headaches.

Prolactin is a hormone associated with reproduction. People with higher than normal levels of prolactin often have difficulties with sexual function and delayed puberty. Low prolactin levels can cause a disruption in menstruation in girls.

Psychotic Symptoms generally refer to significant problems with reality. May include hallucinations, which are false perceptions involving sight, hearing, touch or smell, or may include delusions, which are false and implausible beliefs.

QTc interval is a measure of the heartbeat. For example, an increase in QTc interval may indicate an increased risk for developing an irregular heartbeat.

Stevens-Johnson Syndrome is an allergic reaction that can occur when taking certain medication, including lamotrigine. While skin rashes are common among people taking many medications, Stevens-Johnson syndrome differs from an ordinary rash because it spreads rapidly and can be found on the palms of the hand and soles of the feet as well as in the mucous membranes (mouth, eyes, and genitals) and internal organs. People with Stevens-Johnson syndrome usually have a fever and fatigue. The syndrome can be resolved by stopping medication.

In adults, the risk is about 1 in 10,000 of contracting the syndrome while taking antiseizure medication. For children, the risk is about 10 times higher than in adults. The risk of contracting this syndrome also is higher when taking high doses of antiseizure medications, when the dose is rapidly increased, and when lamotrigine is combined with divalproex (Depakote® or Depakene®). Because of these risks, any person on lamotrigine who develops a rash, especially one located on the palms of the hands or the soles of the feet or on any mucous membranes (mouth, eyes, genital area) should seek medical attention immediately.

Tardive Dyskinesia (TD) is a condition characterized by sporadic involuntary movements that is usually caused by long-term high-dose use of antipsychotic medications.

adolescents with bipolar disorder.

Are bipolar medications ever taken in combination?

It is not unusual for children with a bipolar disorder to be treated with more than one medication simultaneously. For example, your child's doctor may prescribe one or more medication to control the symptoms of bipolar disorder and another medication to help with sleep.

Finding the correct medication, or combination of medications, to treat the symptoms of bipolar disorder takes time. No one medication works for all children. Parents should be aware of the possibility of a trial-and-error process lasting weeks, months, or even longer as doctors try several medications alone or in combination before they find the best treatment for your child. Parents should try not to become discouraged during the initial phase of treatment. Also, treatment for coexisting conditions may not be effective until your child's mood is stabilized.[55]

When to Call the Doctor Immediately

- Call your child's doctor immediately if your child talks about suicide. Anyone who is thinking about committing suicide needs immediate attention, preferably by a mental health professional. Anyone talking about committing suicide must be taken seriously.
- If your child has a rash on the palms or the hand or soles of the feet or sores on any mucous membrane (eyes, mouth, genital area), he or she may have Stevens-Johnson syndrome, which is a rare but potentially fatal skin allergy. If your child has a severe rash or sores in the mouth after taking these medications, please contact your child's doctor or another doctor immediately.
- Patients taking antipsychotics can develop a serious condition called neuroleptic malignant syndrome. This is an extremely rare condition. It consists of marked muscle stiffness, together with fever, racing heart beat, fainting spells, and a general sense of feeling very ill. If these symptoms develop, call your child's doctor or another doctor immediately.
- All mood stabilizers, but especially lithium and antiepileptic medications, can lead to drowsiness, decreased reaction to the outside world, and (in the case of lithium) seizures when markedly overdosed, either accidentally or intentionally. If these symptoms develop, call your child's doctor or another doctor immediately.

How do I monitor medication-related weight gain?

Many of the mood-stabilizing and antipsychotic medications used to treat bipolar disorder are associated with problems with weight gain. Also, weight gain can trigger metabolic problems, such as difficulties controlling blood sugar, cholesterol, and triglycerides. These changes can increase the risk of a child or adolescent developing diabetes and heart problems. Parents should discuss the risks and benefits of specific medications with their child's doctor.

At the start of treatment, your child's height and weight should be measured. The child's BMI (body mass index) should be calculated and adjusted for their age and gender. This provides you and your child's doctor with baseline information so that any changes can be followed over time.

Your child's doctor should know if your child or family members have problems with diabetes, blood sugar, cholesterol, triglycerides, or heart disease. To make treatment with these medications as safe as possible, your child's doctor will weigh them and order certain blood tests from time to time.

Recently the American Diabetes Association (ADA) and the American Psychiatric Association (APA) published guidelines for patients treated with atypical antipsychotic medications. These guidelines were recently updated specifically for children and adolescents[56] who should be growing and gaining weight during normal physical development. For children, weight and height should be measured during a doctor's visit. In addition, blood work (taken after an 8-hour fast that allows only water) should be taken when an atypical antipsychotic is started, after 3 months taking the medication, and at 6-month intervals while continuing the medication.

For tips for the prevention and management of medication weight gain, please see Appendix V of this publication (page 50).

Helping the Child with Bipolar Disorder

What is the parents' role in treatment?

Parents and other family members play a central role in their child's treatment—from choosing a healthcare professional to implementing a treatment plan.

"Spend quality time with your child even when they are at their worst-—reassure them that you love them and that you are their advocate."

—a parent of a child with bipolar disorder

Once a child is diagnosed with bipolar disorder, it is the parents' role to learn about and consider the full range of treatment options. Most doctors suggest it is time to treat a child with bipolar disorder with medication and psychosocial treatment when the disorder impairs the child's ability to function at home or at school.

Once parents agree to treatment, therapy can begin almost immediately. If a parent disagrees with treatment, most doctors will suggest a short waiting period. However, treatment should not be postponed indefinitely.

Parents also play a role in helping their child stay committed to the treatment plan. Parents who are supportive of their child's treatment plan are often more successful in convincing their child to be an active part of the treatment plan.

Parents who are unsure of the appropriateness of their child's diagnosis or treatment plan may want to discuss the benefits of the different treatment options as well as the risks of not treating the illness with the child's doctor. They also may want to get a second opinion from another doctor. Concerns about psychiatric medication are valid and should be addressed directly. Uncertainties will make it difficult to stick with treatment, especially if the child develops side effects from the medication.

Parents also play a critical role coordinating the treatment plan and documenting treatment results. Creating a notebook to record questions and observations, school assessments, and copies of treatment reports has proven helpful for many parents.

Dispensing and monitoring medication are important responsibilities for parents. Do not give the child the responsibility of managing their own medication too early. If your child cannot manage homework and household chores, it is unlikely that he or she can manage medication. Adherence to the treatment program is extremely important to safeguard your child's well being.

Resist nagging your child about whether he or she has taken their medication. Instead, dispense the medication yourself. Inconsistent use of medication can result in relapse, or even hospitalization.

Parents with a child on medication for bipolar disorder must be vigilant. Complications from the disorder or side effects from medication can arise suddenly. Suicidal thoughts are not uncommon among children with bipolar disorder, even those taking medication. Substance use also is common among adolescents with bipolar disorder. To monitor for these complications, parents may need to establish a tightly structured home environment by setting limits and supervising the child's activities and behavior. Substances that can be abused should be kept away from children and firearms locked away.

Because bipolar disorder tends to run in families, parents should be aware they themselves may need to evaluated and treated for bipolar disorder, especially if they experience severe changes in mood. The behavior and mood of siblings also should be considered, and an evaluation sought if their mood behaviors are outside the norm.

Parents also can be their child's advocate by reading about the disorder, joining support groups, and networking with other parents. Foster an open dialogue with your child's doctor about your concerns. Because of the nature of this illness, some of your questions may go unanswered because of the lack of information about bipolar disorder in children and adolescents. However, your child's doctor should be your partner in helping you gain more information about this illness and about the best way to help your child.

Children and adolescents can learn about bipolar disorder and play an important role in their treatment.

How can I help my child understand that medication is important?

Positive reinforcement is often the best way to make sure children stay on their medication. In addition, parents should ask their children about side effects. If the child complains of side effects, the issue should be addressed with the prescribing doctor. Changing the medication or the dose can often alleviate side effects.

It also is important that your child understands what medication he or she is taking, why it is being prescribed, and how it can be helpful. This is especially true for older children and adolescents who may have concerns about being different because they are taking medicine. You may want to compare taking medication for bipolar disorder to wearing eyeglasses. Wearing glasses helps you see better just as medication for bipolar disorder gives you better control over mood and behavior. By contrast, not taking the medication or participating in psychosocial treatment can lead to a variety of negative and undesired

outcomes. These include worsening or recurrence of symptoms of mania or depression, poor functioning at home, school, and with peers, suicidal thinking, substance use, and need for hospitalization. Some research even suggests that an increased number of recurring mood episodes may worsen the outcome over time.

There are many good books about bipolar disorder for children that can help increase their understanding of the illness and increase compliance with medication. There are several recommended in Appendix II of this medication guide.

What is your child's role in treatment?

The role your child plays in treatment will vary according to age and maturity level.

Once a child is diagnosed with bipolar disorder, the doctor should explain that the symptoms of bipolar disorder are unique for each person. Once your child understands that the symptoms of bipolar disorder are different for each person, and what his or her symptoms are, he or she will have an easier time distinguishing which behaviors come from the symptoms of bipolar disorder and which do not.

Children also can learn behavioral techniques to help manage their symptoms, such as going to bed on time, taking their medication, and reacting more positively to conflict and stress.

Your child's doctor can give you advice about how active a role your child should play in his or her treatment.

Children are very astute. They may pick-up on uncertainty parents or other relatives have about the treatment plan. Some children express anxiety by refusing to cooperate with treatment. With patience and education, most children's unease can be calmed. Your child's doctor should have expertise in addressing these concerns.

Also, there are books and other resources that help parents explain bipolar disorder to their children. A list of recommended books can be found in Appendix II.

Privacy laws require schools, colleges, healthcare facilities, and other public agencies to keep your child's medical information confidential.

What should I say to family members, caretakers, school and college personnel, and others about my child's bipolar disorder?

Telling others about your child's bipolar disorder is a very personal decision. The stigma surrounding mental disorders may make parents reluctant, or even embarrassed, to discuss their child's mental health status.

If you decide to tell others about your child's illness, you may want to explain that bipolar disorder is a biological illness, much like diabetes. Rather than having wide variations in blood sugar, your child has wide variations in his or her mood and behavior.

For most people, it helps to first share information with the immediate family, your child's caregivers, your child's doctors, and those who require medical information, such as camp personnel.

Sharing information with your child's school is often necessary, especially if you plan to seek special education accommodations. However, some schools will be more helpful than others. Sometimes children with bipolar disorder are labeled as "difficult" or "behavior problems" by school teachers and administrators. Yet, it is generally preferable for the school to know about your child's diagnosis of bipolar disorder, so they can help monitor his or her behavior in school.

Psychosocial Therapy

What types of psychosocial therapy are available?

Research has shown that a combination of medication and psychosocial treatment can achieve the best outcome for children with bipolar disorder.[23] Regardless of whether your child is on medication for bipolar disorder, psychosocial treatment can help manage the symptoms of the illness and lessen their impact on your child. One study showed that your child's doctor may be able to lower your child's medication dosage if psychosocial treatment is working well.[57]

Forms of psychosocial treatment include psychotherapy (talk therapy) educational intervention, self-help groups, psychodynamic therapy, cognitive behavioral therapy, and family therapy.

Children and adolescents with bipolar disorder do better if they know how to organize their lives to avoid catastrophic mood swings, recognize signs of relapse, and get support from their families. It is here that psychosocial treatment can be crucial.

Research has shown that a comprehensive treatment approach that combines medication and psychosocial treatment can help to reduce family conflict, lower the risk of the child entering the juvenile justice system, and improve school performance. Self-help stress reduction techniques, good nutrition, regular sleep and exercise, and participation in support groups also are an important part of treatment.[58, 32]

"What worked for us was getting family and individual therapy. I also joined support groups. I'm involved in a community support group and another on the Internet. Parents need help to get themselves through those times when you feel that your family is the only family living with bipolar disorder."

—a parent of a child with bipolar disorder

Psychosocial therapy is provided by trained mental health professionals, including psychiatrists, psychologists, and counselors. Many parents find the best way to implement psychosocial treatment is to work with a therapist who has experience in treating children and adolescents with bipolar disorder. A support group for the child or adolescent with the disorder also can be beneficial.

Most psychotherapists acknowledge the importance of creating a team of mental health professionals to help diagnose, treat, and monitor children and adolescents with bipolar disorder. A team approach can help clarify the diagnosis, alleviate issues if the child is reluctance to take medication, and identify stresses that trigger behavioral issues.

Many doctors recommend that parents and guardians attend parenting classes, particularly those focused on how to manage the child's moods and behaviors. This is especially true for children whose oppositional and irritable behaviors are exacerbated by inadequate parenting skills. Training can help parents improve their skills.

"This year, my child's teachers have been helpful implementing behavioral plans."

—a parent of a child with bipolar disorder

Individual and family therapy also are beneficial in helping children and adolescents learn effective techniques for problem-solving, resolving conflicts with others, managing anger, and improving family communication. These coping techniques can be especially helpful for children and adolescents who are depressed or at risk for suicide.[59]

Three types of psychotherapy have proven to be helpful for children and adolescents with bipolar disorder: cognitive-behavioral therapy, interpersonal and social-rhythm therapy and family-focused therapy.

Cognitive-behavioral therapy (CBT) helps people recognize negative thoughts and unwanted behavioral patterns and gives them strategies to change their thoughts and actions. They are taught to avoid stressful situations that provoke mania and thoughts that make them vulnerable to depression.

Family-focused therapy (FFT) is designed to stem highly charged emotions and stresses and to promote family problem solving and conflict resolution. FFT is the best-studied psychosocial therapy for adolescents with bipolar disorder.[60] In a National Institute of Mental Health study, adolescents on mood stabilizers for bipolar disorder were tracked for 2 years. The preliminary results show that FFT combined with a mood stabilizer greatly improved the symptoms of mania, depression, and behavioral problems associated with the illness.[61]

Interpersonal and social-rhythm therapy (IPSRT), or interpersonal therapy, was first developed as therapy for people with bipolar disorder who also were taking mood stabilizers. This therapy is based on a premise that interpersonal

problems (family disputes) and disruptions in daily routines or social rhythms (loss of sleep or changes in meal times) may make people with bipolar disorder more susceptible to new episodes of their illness.[62] IPSRT focuses on minimizing these potential triggers. Preliminary evidence suggests that IPSRT, in combination with medication, can help dampen depressive symptoms and is superior to drug therapy alone. In adolescents these results seem particularly true.

School & the Child with Bipolar Disorder

Does bipolar disorder affect a child's ability to learn?

Having bipolar disorder does not affect your child's intelligence. It can, however, affect his or her ability to learn. Bipolar disorder also has been shown to cause cognitive problems, such as impaired concentration, memory, and thinking. For example, this illness tends to interfere with sleep, which in turn can affect alertness and school attendance.

Learning also can be compromised by time spent away from the classroom for disciplinary actions, since children with emotional and behavioral disorders are much more likely than other students to be suspended or expelled from school.[63]

What can the school do to help my child with bipolar disorder?

Teachers often are the first to notice the symptoms of bipolar disorder, and can provide parents, guardians, and doctors with information that may help diagnose and treat the disorder. They also can play an important role in implementing a successful treatment program by using instructional and behavioral strategies in the classroom.

Public schools are required to evaluate all students suspected of having a disability and to provide a free appropriate public education (FAPE)[64] to students whose disabilities affect their ability to learn. Families also can request an evaluation to determine if their child qualifies for educational services.

However, parents and guardians must give written permission before a school can provide testing or services to a child. Testing and services are confidential and are provided through the public school system at no cost to the family.

Guidelines for a Successful Behavior Modification Plan

- Make rules simple and clear.
- Rules should not contradict each other.
- Give one command at a time.
- The child should understand the rules of behavior.
- Make the behavior plan easy and individualize it for your child.
- Be patient.
- Be consistent.
- All adults involved in the behavioral modification plan must be in agreement.
- Make the plan flexible and revise it from time to time.
- Set a good example.
- Take a break if you or the child is very upset.
- Pick your battles.

Adapted from: Boris Birmaher, M.D., *New Hope for Children and Teens with Bipolar Disorder.* New York, NY: Three Rivers Press, 2004.

Children benefit when teachers use behavioral techniques similar to those used at home, such as giving rewards for good behaviors and having consequences for unwanted behaviors. This helps children learn boundaries and how to deal with choices in the school setting.

Students whose bipolar disorder impairs their ability to learn may qualify for special education and related services under the Individuals with Disabilities Education Act (IDEA)* and Section 504[65†] of the Rehabilitation Act of 1973. Both laws provide assistance to students with disabilities to meet their unique learning and behavioral needs, including accommodations and modifications in the classroom and diagnostic and counseling services. Children with bipolar disorder may be eligible for special education under IDEA in two disability categories: Other Health Impairment and Emotional Disturbance. Children who do not meet IDEA's stringent requirements may still be eligible for accommodations and services under Section 504 of the Rehabilitation Act of 1973.

Because children with bipolar disorder may have coexisting conditions, such as ADHD, anxiety, and learning disabilities, they may qualify for educational services for these conditions as well.

Increasing numbers of children with bipolar disorder attend private therapeutic schools, which have an educational and mental health focus. Because public schools may lack the resources or trained staff to teach students with bipolar disorder, some school districts are paying their private school tuition as a way to provide free appropriate public education.

A list of educational resources can be found in Appendix III. The American Academy of Child and Adolescent Psychiatry also has online education resources to help parents find services for children with special needs. To access a fact sheet about services in school for children with special needs, click here.§

Taking Medication at School

If dosing is necessary during the day, parents and guardians should contact the school principal, nurse, or guidance counselor to arrange for medication to be dispensed at school.

Federal law states that schools cannot make decisions about medicine for a child or require students to take medicine to attend school.

How does bipolar disorder affect my child's ability to form friendships?

Children with bipolar disorder often have difficulty with social (peer) relationships, which can cause conflict at home and at school.[66] Poor social skills and problems perceiving emotions of others, coupled with moody, irritable, impulsive, and sometimes aggressive behavior, may cause children with bipolar disorder to act in ways that others think are mean, rude, thoughtless, or weird. Also, children with bipolar disorder are more frequently the targets of bullies or are bullies themselves.

*http://idea.ed.gov

†http://www.hhs.gov/ocr/504.html

§http://aacap.org/page.ww?section=FactsforFamilies&name=ServicesInSchoolForChildrenWithSpecialNeeds:WhatParentsNeedToKnow

Treatment for bipolar disorder can have positive effects on behavior that lead to improved relationships.

Parents can help foster friendships for their children by letting teachers, school counselors, and coaches know about problems that might develop, arranging one-on-one play dates, and encouraging participation in school activities and peer-group programs. Peer-group programs focused on successful social interactions (social skills groups) may be offered by school personnel, psychologists, speech pathologists, occupational therapists, licensed counselors, and social workers.

Children who are being treated for bipolar disorder often are more able to deal with frustration and control their temper in challenging social situations.

Unproven Treatments

Do alternative treatments for bipolar disorder, such as special diets or herbal supplements, really work?

Parents often hear reports of "miracle cures" for bipolar disorder on the television, in magazines, or in advertisements. Before considering any treatment for bipolar disorder, find out whether the source of this information is unbiased and whether the claims are valid, and discuss it with your child's doctor. Always tell your child's doctor about any alternative therapies, supplements, or over-the-counter medications that your child is using. They may interact with prescribed medications and hinder your child's progress or compromise your child's safety.

"Too often siblings of children with bipolar disorder suffer silently, trying not to add to the burden"

—a parent of a child with bipolar disorder

Some of the other more prevalent unproven treatments for bipolar disorder are special diets, herbal supplements, homeopathic treatments, megavitamin dosing, music therapy, vision therapy, chiropractic adjustments, anti-motion-sickness medication, applied kinesiology (realigning bones in the skull), and brain wave biofeedback.[67]

Parents should be cautious about placing their child on a megavitamin regimen. There is no evidence that megavitamin dosing works. Also, giving children vitamins in large doses can be very dangerous, even fatal.

While it would be wonderful if these treatments worked, rigorous scientific research has not found these alternatives to be effective for managing the symptoms of bipolar disorder—and they are certainly not "cures." Also, keep in mind that there is no known cure for bipolar disorder at this time.

Research on Bipolar Disorder in Children

What does the future hold?

During the past ten years, a significant amount of research has been conducted on bipolar disorder in children and adolescents.

Doctors now have two guidelines to follow, one from the American Academy of Child and Adolescent Psychiatry and another from the Child and Adolescent Bipolar Foundation. Data about bipolar disorder in children and adolescents exists from eight, large, well-controlled clinical trials and several longitudinal studies. Multiple neurobiological studies have been conducted as well as studies that document the effectiveness of medication and psychosocial treatment for children and adolescents with bipolar disorder.

The focus for doctors who treat children and adolescents with bipolar disorder has shifted from, "Does bipolar disorder really exist in children and adolescents?" to, "How can we best predict, diagnose, and treat this psychiatric disorder in children and adolescents?"

The challenges for future researchers and clinicians include:

- Developing and testing medication (and combinations of medication) that are effective and help prevent reoccurrence without making manic or depressed episodes worse.
- Developing tests to predict how children and adolescents will respond to treatment.
- Finding the genes that increase the risk of the illness.
- Developing imaging technologies that will help diagnose the illness.
- Developing cognitive and behavioral therapies that help control the symptoms of bipolar disorder and prevent reoccurrence while complementing medication.
- Exploring the biology of this disorder to find a cure.

A recent search of scholarly journals resulted in more than 4700 articles about bipolar disorder in children and adolescents.

For a summary of research on bipolar disorder at the National Institute of Mental Health, go to: http://www.nimh.nih.gov.

Appendix I

National Resources

American Academy of Child and Adolescent Psychiatry
3615 Wisconsin Avenue, N.W.
Washington, D.C. 20016-3007
202-966-7300
http://www.aacap.org
http://www.parentsmedguide.org

American Academy of Pediatrics
141 Northwest Point Boulevard
Elk Grove Village, IL 60007-1098
847-434-4000
http://www.aap.org

American Psychiatric Association
1000 Wilson Boulevard
Suite 1825
Arlington, VA 22209
1-888-35-PSYCH
http://www.psych.org
http://www.healthyminds.org

BP Children
P.O. Box 380075
Murdock, FL 33938
http://www.bpchildren.com

Child and Adolescent Bipolar Foundation
820 Davis Street, Suite 520
Evanston, IL 60201
1-847-492-8519
http://www.bpkids.org

Depression and Bipolar Support Alliance
730 N. Franklin Street, Suite 501
Chicago, Illinois 60654-7225
1-800-826-3632
http://www.dbsalliance.org

Families for Depression Awareness
395 Totten Pond Road, Suite 404
Waltham, MA 02451
781-890-0220
http://www.familyaware.org

Mental Health America
2000 N. Beauregard Street, 6th Floor
Alexandria, VA 22311
1-703-684-7722
http://www.mentalhealthamerica.net

National Alliance on Mental Illness
Colonial Place Three
2107 Wilson Blvd., Suite 300
Arlington, VA 22201-3042
1-800-950-6264
http://www.nami.org

National Federation of Families for Children's Mental Health
9605 Medical Center Drive, Suite 280
Rockville, MD 20850
1-240-403-1901
http://www.ffcmh.org

National Institute of Mental Health, National Institutes of Health
Science Writing, Press, and Dissemination Branch
6001 Executive Blvd., Rm 8184
Bethesda, MD 20892
1-866-615-6464
http://www.nimh.nih.gov/index.shtml

National Mental Health Information Center, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration
P.O. Box 42557
Washington, DC 20015
1-800-789-2647
http://mentalhealth.samhsa.gov/cmhs

National Resource Center on AD/HD
Children and Adults with Attention-Deficit/Hyperactivity Disorder
8181 Professional Place, Suite 150
Landover, MD 20785
1-800-233-4050
http://www.help4adhd.org
http://www.chadd.org

The Ryan Licht Sang Bipolar Foundation
875 N. Michigan Avenue
Suite 3100
Chicago, IL 60611
1-888-944-4408
http://www.ryanlichtsangbipolarfoundation.org

Appendix II

Publications about Bipolar Disorder

For children aged 4 to 9 years

- *Brandon and the Bipolar Bear: A Story for Children with Bipolar Disorder* by Tracy Anglada
- *Matt the Moody Hermit Crab* by Caroline McGee
- *Please Don't Cry, Mom* by Helen DenBoer

For children aged 9 to 12 years

- *Bipolar Teen* by David Miklowitz
- *Mind Race: A Firsthand Account of One Teenager's Experience with Bipolar Disorder* by P.E. Jamieson and M.A. Rynn
- *The Wind in the Willows* by Kenneth Grahame
- *Ups and Downs: How to Beat the Blues and Teen Depression* by Susan Klebanoff and and Ellen Luborsky

For young adults

- *Bipolar Disorder* by Judith Peacock
- *The Bipolar Teen: What You Can Do to Help Your Child and Your Family* by David J. Miklowitz and Elizabeth L. George
- *Coping with Depression* by Sharon Carter and Lawrence Clayton
- *Depression* by Alvin Silverstein
- *Depression Is the Pits, But I'm Getting Better: A Guide For Adolescents* by E. Jane Garland

- *Everything You Need To Know about Bipolar Disorder and Manic Depressive Illness* by Michael A. Sommers
- *Intense Minds* by Tracy Anglada
- *Mind Race: A Firsthand Account of One Teenager's Experience with Bipolar Disorder* by Patrick E. Jamieson, Ph.D.
- *When Nothing Matters Anymore: A Survival Guide for Depressed Teens* by Bev Cobain

For adults

- *Adolescent Depression: A Guide for Parents* by Francis Mondimore
- *Bipolar Disorders: A Guide to Helping Children and Adolescents* by Mitzi Waltz
- *The Bipolar Child: The Definitive and Reassuring Guide To Childhood's Most Misunderstood Disorder* by Demitri F. Papolos
- *The Childhood Depression Sourcebook* by Jeffrey A. Miller
- *The Depression Sourcebook* by Brian Quinn
- *Depression in the Young: What We Can Do to Help Them* by Trudy Carlson
- *Helping Your Teenager Beat Depression: A Problem-Solving Approach for Families* by Katharina Manassis and Anne Marie Levac
- *"Help Me, I'm Sad": Recognizing, Treating, and Preventing Childhood and Adolescent Depression* by David G. Fassler and Lynne S. Dumas
- *How You Can Survive When They're Depressed: Living and Coping With Depression Fallout* by Anne Sheffield
- *If Your Adolescent Has Depression or Bipolar Disorder: The Teen at Risk and Your — What You Face and What to do About It* by Dwight Evans
- *Life of a Bipolar Child: What Every Parent and Professional Needs to Know* by Trudy Carlson
- *Lonely, Sad and Angry: A Parent's Guide to Depression in Children and Adolescents* by Barbara D. Ingersoll
- *New Hope for Children and Teens with Bipolar Disorder: Your Friendly, Authoritative Guide to the Latest in Traditional and Complementary Solutions* by Boris Birmaher
- *Overcoming Teen Depression: A Guide for Parents* by Miriam Kaufman
- *Raising a Moody Child* by Mary A Fristad
- *Straight Talk About Your Child's Mental Health: What To Do When Something Seems Wrong* by Stephen Faraone
- *What Works for Bipolar Kids* by Mani Pavuluri

Books for siblings

- *Turbo Max: A Story For Siblings of Bipolar Children* by T. Anglada
- *Understanding Mental Illness: For Teens Who Care about Someone with Mental Illness* by Julie Tallard Johnson

Books about understanding psychiatric disorders

- *It's Nobody's Fault* by H. Koplewicz

Books about understanding psychiatric medications

- *New Hope for Children and Teens with Bipolar Disorder* by Boris Birmaher, M.D.
- *Straight Talk About Psychiatric Medications for Kids* by T. Wilens

Online publications

- *Pediatric Bipolar Disorder*
  http://www.help4adhd.org/en/treatment/coexisting/pedbipolar
- *Trastorno bipolar pediátrico* (Spanish)
  http://www.help4adhd.org/es/treatment/coexisting/pedbipolar
- *Children's Mental Health Facts: Bipolar Disorder*
  http://mentalhealth.samhsa.gov/publications/allpubs/sma05-4058/
- *Child and Adolescent Bipolar Disorder: An Update from the National Institute of Mental Health*
  http://www.nimh.nih.gov/health/publications/child-and-adolescent-bipolar-disorder/summary.shtml
- *Medline Plus: Bipolar Disorder*
  http://www.nlm.nih.gov/medlineplus/bipolardisorder.html
- *AD/HD and Co-Existing Disorders*
  http://www.help4adhd.org/documents/WWK5.pdf

Appendix III

Educational Resources

Organizations

American Academy of Child and Adolescent Psychiatry
3615 Wisconsin Avenue, N.W.
Washington, D.C. 20016-3007
202-966-7300

Center for School Mental Health
University of Maryland School of Medicine
Department of Psychiatry
737 W. Lombard St., 4th Floor
Baltimore, MD 21201
1-410-706-0980
http://csmh.umaryland.edu

IDEA Partnership
NASDSE
1800 Diagonal Rd. Suite 320
Alexandria, VA 22314
1-877-IDEA-info
http://www.ideapartnership.org

National Association of Therapeutic Schools and Programs
126 North Marina
Prescott, AZ 86301
928-443-9505
http://www.natsap.org

National Community of Practice on Collaborative School Behavioral Health
NASDSE
1800 Diagonal Rd., Suite 320
Alexandria, VA 22314
1-877-IDEA-info
http://www.sharedwork.org

School Mental Health Project
Center for Mental Health in Schools
University of California, Los Angeles
Department of Psychology
P. O. Box 951563
Los Angeles, CA 90095
1-866-846-4843
http://smhp.psych.ucla.edu

U.S. Department of Education, Office of Special Education
400 Maryland Ave. SW
Washington, DC 20202
1-800-USA-LEARN
http://idea.ed.gov

Publications

Health, Mental Health, and Safety Guidelines for Schools. American Academy of Pediatrics and the National Associations of School Nurses. Elk Grove Village, IL 2005.

Websites

BP Children
http://www.bpchildren.com

Child & Adolescent Bipolar Foundation
http://www.bpkids.org

Developmental Behavior Pediatrics Online
http://www.dbpeds.org

The Josselyn Center
http://www.josselyn.org

Internet Special Education Resources
http://www.iser.com

Special Education Advocacy
http://www.wrightslaw.com

Appendix IV

Questions to Ask Your Child's Doctor about Medication for Bipolar Disorder

- What is the name of this medication? Is it known by other names or a generic name?
- Why did you recommend this particular medication? Have studies been conducted using this medication in children? How effective is this medicine?
- How will this medication help my child? What are the target symptoms that will let us know it is working? How long will it take to see results?
- What is the starting dose of the medicine? What if there are problems? Can I stop the medicine or adjust the dose? Will I need to make any adjustments to the dose before our next visit?
- Is the medicine taken with food or on an empty stomach? Morning or night? Do I need to make changes to our diet?
- What are the risks of this medication? Is lab work necessary before starting the medication? Are there lab tests to monitor the medication? How often will lab tests be needed?
- What are the short-term side effects? Are there ways to work around these side effects? Are there dangerous or long-term side effects? Is it addictive?
- How do we contact you if there is an urgent problem? How often will we need to follow up with the doctor? How will you communicate with my child's other doctors and therapists?
- If this medication is working, how long will I need to give it to my child? What will you recommend if this medication does not work?
- Are there any medications (prescription or over-the-counter) my child cannot take while on this medication?
- Where can I get more information about this medication?

Appendix V

Tips to Control Weight Gain

The following tips and ideas can help both prevent and manage medication-related weight gain in children and adolescents.

Dietary guidance:

- Use portion control for all food at meals and snacks—measure and limit size of portions (pour out an amount of snack rather than eating out of box or bag)
- Use more healthy food choices (fresh fruits and vegetables for snacks)
- Limit snacks and junk food
- Substitute high-calorie snacks with lower-calorie alternatives (pretzels instead of chips and nuts)
- Drink several large glasses of water throughout the day
- Limit (or stop) sugar-containing beverages (sodas, juice, sports drinks, etc.)
- Have other family members be understanding and supportive (do not eat high-calorie foods in front of the child or teen)
- Encourage regular self-weighing as feedback and a means of gaining control

Tips for meals

- Schedule regular meal times
- Plan menus and limit fast food
- Do not skip breakfast
- Eat 3 to 5 small meals
- Sit down to eat and try not to stand and eat
- Chew food more slowly
- Drink ample water during meals
- Avoid eating in front of the TV
- Remember portion control (measure and limit size of portions)

Tips to increase activity level (30 to 60 minutes per day are recommended)

- Limit time spent watching TV, being on the computer, or playing video games to less than 2 hours per day
- Increase walking (walk after each meal, wear a pedometer to make it fun)
- Use stairs instead of elevators
- Encourage exercise and sports involvement
- Plan physical activities that are fun and interesting (playing outdoors, riding bikes, rollerblading, swimming, bowling, dancing, etc.)
- Pair exercise with usual sedentary behavior (allow child to watch TV while exercising on a stationary bike)

Following these tips can limit weight gain when taking psychiatric medications and help reduce the risk of serious medical problems. If these healthy lifestyle interventions do not help to reduce weight gain, a switch to a lower-risk medication should be considered.

Appendix VI

Bipolar Disorder Advocacy

Parents can best advocate for their child by being informed about their child's condition and by staying involved. Many times, children have difficulties explaining the symptoms they are experiencing. They also may have difficulty understanding that they have a mental health condition, or that they need treatment. Some of the ways parents can advocate for their child are by:

- Getting a comprehensive evaluation. Effective treatment depends on an accurate diagnosis.
- Insisting on the best care for their child. Finding the most knowledgeable and experienced doctor to care for your child can make for a positive outcome.
- Asking a lot of questions about the diagnosis and treatment plan. Also, encourage your child to ask questions, too.
- Insisting on care that builds upon your child's strengths and is "family centered."

- Being prepared at each doctor's visit with past consultations and treatment reports. Many parents insist on receiving copies of their child's evaluations and treatment plans.
- Seeking a second opinion. Responsible mental health professionals gladly help patients with referrals for second opinions.
- Helping the child learn about the condition, too. Age-appropriate books, pamphlets, and movies are available.
- Knowing the details of your insurance policy to gain access to specialists under your plan's payment policy.
- Working with your child's school to access special needs services.
- Learning about reimbursement from your state's Medicaid system. Some children are eligible for state reimbursement of care.

Author and Expert Consultant Disclosures and Contributing Organizations

The following individuals contributed to the development of the Parent's Medication Guide for Bipolar Disorder in Children and Adolescents Christopher J. Kratochvil, M.D., David Fassler, M.D., Robert A. Kowatch, M.D., R. Scott Benson, M.D., Gabrielle A. Carlson, M.D., Christoph U. Correll, M.D., Cathryn Galanter, M.D., Laurence Lee Greenhill, M.D., Soleil Gregg, M.A., Ellen Leibenluft, M.D., Boris Lorberg, M.D., Susan Resko, M.M., Adelaide S. Robb, M.D., David Shaffer, F.R.C.P., F.R.C.Psych. , Lynn Wegner, M.D., F.A.A.P., Ivonn Ellis-Wiggan, J.D., Psy.D., Sherri Wittwer, MPA, Amy Bowman (Medical Writer), and AACAP Staff: Stacia Fleisher, M.P.P., and Amy DeYoung.

The AACAP parent's medication guides are developed by the AACAP Pediatric Psychopharmacology Initiative (PPI), a subcomponent of the AACAP Work Group on Research. The medication guide development process included review by the AACAP Work Group on Research, the AACAP Executive Committee, primary author(s), topic experts, representatives from multiple constituent groups, The Child & Adolescent Bipolar Foundation and the AACAP Work Group on Consumer Issues (WGCI). Disclosures of potential conflict for the primary authors can be accessed on the AACAP Web site.

This medication guide was approved by the AACAP Executive Committee and AACAP Council in June 2009 and is available on the Internet at www.aacap.org and www.parentsmedguide.org.

Below is a comprehensive list of financial disclosures which may conflict with the contributors' role in the development of this guide. The complete disclosure forms are available at: http://www.aacap.org/cs/BipolarDisorder.ResourceCenter.

Christopher J. Kratochvil, M.D.

Research Support: Eli Lilly and Company; McNeil; Shire Pharmaceuticals Inc.; Somerset Pharmaceuticals Inc.; Abbott Laboratories; NIH

Consultant: Abbott Laboratories; Eli Lilly and Company, AstraZeneca

Other: Provided medication for NIMH study (Eli Lilly and Company); Data Safety Monitoring Board (Pfizer), Editor of *Brown Child and Adolescent Psychopharmacology* Update, REACH Institute

David Fassler, M.D.

Board Member, American Psychiatric Association; Mental Health America, Child and Adolescent Bipolar Foundation.

Robert Kowatch M.D.

Consultant: Forest Pharmaceutical; GlaxoSmithKline; Medscape; Physicians Post Graduate Press Speakers Bureau; AstraZeneca LC

Research Support: National Alliance for Research on Schizophrenia and Depression; National Institute of Child Health and Human Development; National Institute of Mental Health; Stanley Foundation

Other: Forest Pharmaceutical; Editor (Current Psychiatry)

R. Scott Benson, M.D.

No Disclosures

Gabrielle A. Carlson, M.D.

Consultant: Eli Lilly and Company; Otsuka America Pharmaceutical, Inc.; Bristol-Myers Squibb; Validus; Lundbeck

Research Support: Eli Lilly and Company; Otsuka America Pharmaceutical, Inc.; Bristol-Myers Squibb; GlaxoSmithKline

Other: CME Speaker

Christoph Correll, M.D.

Advisor/Consultant: AstraZeneca LP; Bristol-Myers Squibb; Otsuka America Pharmaceutical, Inc.; Eli Lilly and Company; Medicure; Janssen, Division of Ortho-McNeil-Janssen Pharmaceuticals, Inc., Johnson & Johnson; Pfizer Inc; Schering-Plough; Vanda

Speakers Bureau: AstraZeneca LP; Bristol-Myers Squibb; Otsuka America Pharmaceutical, Inc.; Pfizer Inc

Other: Data Safety Monitoring Board (Bristol-Myers Squibb; Cephalon, Inc.; Otsuka America Pharmaceutical, Inc.; Supernus)

Cathryn A. Galanter, M.D.

Consultant: The Resource for Advancing Children's Health Institute (Scientific Steering Committee Member and Faculty); American Psychiatric Association/Shire Child Psychiatry Fellowship (Chair of Selection Committee)

Books, Intellectual Property: Editor, DSM-IV-TR Casebook and Treatment Guide for Child Mental Health (American Psychiatric Publishing, Inc.)

Laurence L. Greenhill, M.D.

Grant Support: Johnson & Johnson; National Institute of Mental Health (NIMH); Otsuka America Pharmaceutical, Inc.

Soleil Gregg, M.A.
No Disclosures

Ellen Leibenluft, M.D.
No Disclosures

Boris Lorberg, M.D.

Other: Recipient of 2008-2009 ACP Laughlin Fellowship (financed by unrestricted educational grant from Bristol-Myers Squibb

Susan Resko, M.M.
No Disclosures

Adelaide Robb, M.D.

Advisory Board: Bristol-Myers Squibb; Eli Lilly and Company; Otsuka America Pharmaceutical, Inc.

Consultant: Forest Laboratories, Inc.; Lundbeck

Grant Support: Bristol-Myers Squibb; Forest Laboratories, Inc.; GlaxoSmithKline; Janssen, Division of Ortho-McNeil-Janssen Pharmaceuticals, Inc.; National Institute of Mental Health (NIMH); Pfizer Inc; Sepracor Inc.; Supernus

Research Support: National Institute of Child Health and Human Development (NICHD)

Speakers' Bureau: Bristol-Myers Squibb; Eli Lilly and Company; McNeil Pediatrics, Division of Ortho-McNeil-Janssen Pharmaceuticals, Inc.

Honoraria: Epocrates

David Shaffer, F.R.C.P., F.R.C.Psych.
No Disclosures

Lynn Wegner, M.D., F.A.A.P.

Consultant: REACH Institute (member), AAP (immediate past chair-person; section on development & behavior

Speakers Bureau: REACH Institute and AAP (faculty)

Research Support: REACH Institute (steering committee)

Other: REACH Institute and AAP (travel, meals); AAP (minimal compensation)

Ivonne Ellis-Wigan, J.D., Psy.D.
No Disclosures

Sherri D. Wittwer, M.P.A.
No Disclosures

Amy Bowman

Books, Intellectual Property: Palladian Partners Government Contractor; American Psychiatric Association; National Institutes of Health (NCI, NIA); Centers for Disease Control and Prevention; American Diabetes Association; American Public Health Association

Stacia Fleisher, M.P.P.

Grant Support: National Institute on Drug Abuse

Amy DeYoung

Grant Support: National Institute on Drug Abuse

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