# Bipolar Disorder in Children and Adolescents

National Institute of Mental Health

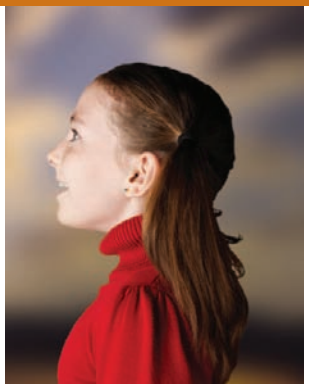
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES • National Institutes of Health

## Contents

All parents can relate to the many changes their kids go through as they grow up. But sometimes it's hard to tell if a child is just going through a "phase," or showing signs of something more serious.

In the last decade, the number of children receiving the diagnosis of bipolar disorder, sometimes, called manic-depressive illness, has grown substantially.[1] But what does the diagnosis really mean for a child?

This booklet discusses bipolar disorder in children and teens. For information on bipolar disorder in adults, see the National Institute of Mental Health (NIMH) booklet *Bipolar Disorder in Adults.*



## What is bipolar disorder?

Bipolar disorder, also known as manic-depressive illness, is a brain disorder that causes unusual shifts in mood, energy, and activity levels. It can also make it hard to carry out day-to-day tasks, such as going to school or hanging out with friends. Symptoms of bipolar disorder can be severe. They are different from the normal ups and downs that everyone goes through from time to time. Bipolar disorder symptoms can result in damaged relationships, poor school performance, and even suicide. But bipolar disorder can be treated, and many people with this illness can lead full and productive lives.

Symptoms of bipolar disorder often develop in the late teens or early adult years, but some people have their first symptoms during childhood. At least half of all cases start before age 25.[2]

Bipolar disorder tends to run in families. Children with a parent or sibling who has bipolar disorder are up to six times more likely to develop the illness, compared with children who do not have a family history of bipolar disorder.[3] However, most children with a family history of bipolar disorder will not develop the illness.

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

Youth with bipolar disorder experience unusually intense emotional states that occur in distinct periods called "mood episodes." The extreme highs and lows of mood are accompanied by extreme changes in energy, activity, sleep, and behavior. **Each mood episode represents a drastic change from a person's usual mood and behavior.**

An overly joyful or overexcited state is called a manic episode. An extremely sad or hopeless state is called a depressive episode. Sometimes, a mood episode includes symptoms of both mania and depression. This is called a mixed state. People with bipolar disorder also may be explosive and irritable during a mood episode.

Symptoms of bipolar disorder are described below.

### Symptoms of mania include:

**Mood Changes**

- Being in an overly silly or joyful mood that is unusual for your child. It is different from times when he or she is just being silly and having fun.
- Having an extremely short temper and unusual irritability.

**Behavioral Changes**

- Sleeping little but not feeling tired
- Talking a lot and having racing thoughts
- Having trouble concentrating or paying attention, jumping from one thing to the next in an unusual way
- Talking and thinking about sex more often than usual
- Behaving in risky ways more often, seeking pleasure a lot, and doing more activities than usual.

### Symptoms of depression include:

**Mood Changes**

- Being in a sad mood that lasts a long time
- Losing interest in activities once enjoyed
- Feeling worthless or guilty.

**Behavioral Changes**

- Complaining about pain more often, such as headaches, stomach aches, and muscle pains
- Eating a lot more or less than usual and gaining or losing a lot of weight
- Sleeping or oversleeping when these were not problems before
- Losing energy
- Recurring thoughts of death or suicide.

It's normal for almost every child or teen to show some of these behaviors sometimes. These passing changes should not be confused with bipolar disorder.

Symptoms of bipolar disorder are not like the normal changes in mood and energy that everyone has. Bipolar symptoms are more extreme and tend to last for most of the day, nearly every day, for at least 1 week. Also, depressive or manic episodes include moods very different from a child's normal mood, and the behaviors described in the chart generally all come on at the same time. Sometimes the symptoms of bipolar disorder are so severe that the child needs to be treated in a hospital.

Bipolar disorder can be present even when mood swings are less extreme. For example, sometimes a child may have more energy and be more active than normal, but not show the severe signs of a full-blown manic episode. This is called hypomania. It generally lasts for at least 4 days in a row. Hypomania causes noticeable changes in behavior, but does not harm a child's ability to function in the same way that mania does.

### Note on Misdiagnosis: Rapidly Shifting Moods and High Energy

Findings from the NIMH-funded Longitudinal Assessment of Manic Symptoms (LAMS) study suggest that most young children with rapid mood swings and extremely high energy levels do not actually have bipolar disorder. However, these symptoms do cause significant problems at home, school, or with peers. The LAMS researchers re-assessed the children periodically to determine which children with rapid mood swings and high energy develop bipolar disorder later in life.[4]

Rapid mood changes and high energy are common among youth, but some researchers suggest these symptoms are hallmarks of mania in children. Other experts believe that over-diagnosis and misdiagnosis may play a role in the sharply rising numbers of children being diagnosed with and treated for this disorder.[5]

## How does bipolar disorder affect children and adolescents differently than adults?

Bipolar disorder that starts during childhood or the early teen years is called early-onset bipolar disorder, and seems to be more severe than the forms that first appear in older teens and adults.[6] Youth with bipolar disorder are different from adults with bipolar disorder. Young people with the illness appear to have more frequent mood switches, are sick more often, and have more mixed episodes.[7]

**Watch out for any sign of suicidal thinking or behaviors. Take these signs seriously.** On average, people with early-onset bipolar disorder are at greater risk for attempting suicide than those whose symptoms start in adulthood.[8, 9] One large study on bipolar disorder in children and teens found that more than one-third of

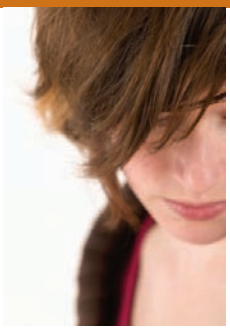
study participants made at least one serious suicide attempt.[10] Some suicide attempts are carefully planned and others are not. Either way, it is important to understand that suicidal feelings and actions are symptoms of an illness that **must** be treated.

For more information on suicide, see the NIMH publication, Suicide in America: Frequently Asked Questions at http://www.nimh.nih.gov/health/publications/suicide-in-america/suicide-in-america-frequently-asked-questions.shtml.

### Note on Misdiagnosis: Chronic Irritability and ADHD

Children with chronic, severe irritability and symptoms of attention deficit hyperactivity disorder (ADHD) may be misdiagnosed as having bipolar disorder. However, researchers believe that it is more appropriate to label these types of symptoms as severe mood dysregulation (SMD). Evidence suggests that SMD should not be considered a form of bipolar disorder. Studies show that children with SMD differ from children with bipolar disorder in a number of ways.[11, 12, 13] For example, children with SMD do not tend to develop manic episodes as they age, while children with bipolar disorder do develop mania. Rather, children with SMD are more at risk for developing anxiety disorders or depression.[14] In addition, children with bipolar disorder tend to have strong family histories of bipolar disorder, but children with SMD do not.[15] More recently, imaging studies have shown that children with SMD differ from those with bipolar disorder in the way their brains process facial emotions and manage attention.[16, 17]

It is important to determine if a child has bipolar disorder or a different illness to ensure he or she gets the appropriate treatment.



## How is bipolar disorder detected in children and adolescents?

No blood tests or brain scans can diagnose bipolar disorder. However, a doctor or health care provider may use tests like these to help rule out other possible causes for your child's symptoms. In addition, they may recommend testing for problems in learning, thinking, or speech and language.[18] A careful medical exam may also detect problems that commonly co-occur with bipolar disorder and need to be treated, such as substance abuse.

Health care professionals who have experience with diagnosing early-onset bipolar disorder will ask questions about changes in your child's mood. They will also ask about sleep patterns, activity or energy levels, and if your child has had any other mood or behavioral disorders. They may also ask whether there is a family history of bipolar disorder or other psychiatric illnesses, such as depression or alcoholism.

Doctors diagnose bipolar disorder using guidelines from the Diagnostic and Statistic Manual of Mental Disorders (DSM). To be diagnosed, the symptoms must be a major change from your child's normal mood or behavior. There are four basic types of bipolar disorder:

- **Bipolar I Disorder—**defined by manic or mixed episodes that last at least 7 days, or by manic symptoms that are so severe that the person needs immediate hospital care. Usually, depressive episodes occur as well, typically lasting at least 2 weeks.
- **Bipolar II Disorder—**defined by a pattern of depressive episodes and hypomanic episodes, but no full-blown manic or mixed episodes.
- **Bipolar Disorder Not Otherwise Specified (BP-NOS) —**diagnosed when symptoms of the illness exist but do not meet diagnostic criteria for either bipolar I or II. However, the symptoms are clearly out of the person's normal range of behavior.
- **Cyclothymic Disorder, or Cyclothymia—**a mild form of bipolar disorder. People with cyclothymia have episodes of hypomania as well as mild depression for at least 2 years. However, the symptoms do not meet the diagnostic requirements for any other type of bipolar disorder.

When children have manic symptoms that last for less than 4 days, experts may diagnose BP-NOS. Some evidence indicates that many of these young people will develop longer episodes within a few years and then meet the criteria for bipolar I or II.[19]

## What illnesses often co-exist with bipolar disorder in children and adolescents?

People with bipolar disorder may develop other mental illnesses as well, including:

- **Alcoholism.** Adults with bipolar disorder are at very high risk of developing a substance abuse problem. Young people with bipolar disorder may have the same risk.
- **ADHD.** Mania and ADHD share some symptoms, such as distractibility, hyperactivity, and the tendency to engage in impulsive and risky behavior. However, mania is episodic, so that the behaviors are uncharacteristic of the child. They start at a time when he or she is experiencing a dramatic change in mood. In contrast, ADHD symptoms are persistent and typical for that child, although they may wax and wane to a certain degree. Many children with bipolar disorder also have a history of ADHD.[20]
- **Anxiety Disorders.** Anxiety disorders, such as separation anxiety and generalized anxiety disorder, also commonly co-occur with bipolar disorder, in both children and adults.
- **Other Mental Disorders.** Some mental disorders cause symptoms similar to bipolar disorder. One example is major depression, sometimes called unipolar depression. Sometimes, it is extremely difficult to tell the difference between major depression and a depressive episode in bipolar disorder. For this reason, if your child has bipolar disorder and becomes depressed, be sure that the doctor is aware of any past manic symptoms or episodes your child may have had.

## What treatments are available for children and adolescents with bipolar disorder?

Currently, there is no cure for bipolar disorder. However, treatment with medications, psychotherapy, or both may help people recover from their episodes, and may help to prevent future episodes.

To treat children and teens with bipolar disorder, doctors often rely on information about treating adults. This is because there haven't been many studies on treating young people with the illness.

One large study with adults funded by NIMH was the Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) (for more information, visit http://www.nimh.nih.gov/trials/practical/step-bd/index.shtml). This study found that treating adults with medications and intensive psychotherapy for about 9 months helped them get better. These adults got better faster and stayed well longer than adults treated with less intensive psychotherapy for 6 weeks.[21] Combining medication treatment and psychotherapies may help young people with early-onset bipolar disorder as well.[22] However, children sometimes respond differently to psychiatric medications than adults.

## Medications

Before starting medication, your doctor will want to determine your child's physical and mental health. This is called a "baseline" assessment. Your child will need regular follow-up visits to monitor treatment progress and side effects. Most children with bipolar disorder will also need long-term or even lifelong medication treatment. This is often the best way to manage symptoms and prevent relapse, or a return of symptoms.[23]

It's better to limit the number and dose of medications. A good way to remember this is to "start low, go slow." Talk to the doctor about using the smallest amount of medication that helps relieve your child's symptoms. To judge a medication's effectiveness, your child may need to take a medication for several weeks or months. The doctor or specialist needs this time to decide whether the medication is working or if they need to switch to a different medication. Because children's symptoms are usually complex, they commonly need more than one type of medication.[24]

Keep a daily log of your child's most troublesome symptoms. Doing so can make it easier for you, your child, and your doctor to decide whether a medication is helpful. Also, be sure to tell your doctor about all other prescription drugs, over-the-counter medications, or natural supplements your child is taking. Combining certain medications and supplements may cause unwanted or dangerous side effects.

Some of the types of medications generally used to treat bipolar disorder are listed below. Information on medications can change. For the most up-to-date information on use and side effects of medications, see the U.S. Food and Drug Administration (FDA) website at http://www.fda.gov. You can also find more information about medications in the NIMH *Mental Health Medications* booklet at http://www.nimh.nih.gov/health/publications/mental-health-medications/index.shtml.

**Mood stabilizers,** such as lithium are usually the first choice to treat bipolar disorder. Lithium is approved for the treatment and prevention of manic symptoms in children ages 12 and older.[25] In addition, lithium might act as an antidepressant and help prevent suicidal behavior.[26] However, FDA's approval of lithium was based on treatment studies in adults, not children.

**Anticonvulsant medications,** originally developed to treat seizures, are also sometimes used as mood stabilizers. They are not approved by the FDA for treating bipolar disorder in children, but your doctor may prescribe one on an "off label" basis. They may be very helpful for difficult-to-treat bipolar episodes. For some children, anticonvulsants may work better than lithium. Examples of anticonvulsant medications include valproic acid or divalproex sodium (Depakote) and lamotrigine (Lamictal).

### *What are the side effects of mood stabilizers?*

Lithium can cause side effects such as:

- Restlessness
- Frequent urination
- Dry mouth
- Bloating or indigestion
- Acne
- Joint or muscle pain
- Brittle nails or hair.

Lithium may cause other side effects not listed here. Tell the doctor about bothersome or unusual side effects as soon as possible.

If your child is being treated with lithium, it is important for him or her to see the doctor regularly. The doctor needs to check the levels of lithium in your child's blood, as well as kidney function and thyroid function.

Some common side effects of lamotrigine and valproic acid include:

- Drowsiness
- Dizziness
- Headache
- Diarrhea
- Constipation
- Heartburn
- Mood swings
- Stuffed or runny nose, or other cold-like symptoms.

### Lithium Poisoning

Children may be showing early signs of lithium poisoning if they develop the following:

- Diarrhea
- Drowsiness
- Muscle weakness
- Lack of coordination
- Vomiting.

Take your child to the emergency room if he or she is taking lithium and has these symptoms. The risk of lithium poisoning goes up when a child becomes dehydrated. Make sure your child has enough to drink when he or she has a fever or sweats a lot during very active play or work.

These medications may also be linked with rare but serious side effects. Talk with the doctor or a pharmacist to make sure you understand signs of serious side effects for the specific medications your child is taking.

In addition, valproic acid, lamotrigine, and other anticonvulsant medications carry an FDA warning. The warning states that their use may increase the risk of suicidal thoughts and behaviors. People taking anticonvulsant medications for bipolar or other illnesses should be closely monitored for new or worsening symptoms of depression, suicidal thoughts or behavior, or any unusual changes in mood or behavior. People taking these medications should not make any changes without talking to their health care professional.

### Should girls take valproic acid?

Valproic acid may increase levels of testosterone (a male hormone) in teenage girls. It could lead to a condition called polycystic ovarian syndrome (PCOS) in women who begin taking the medication before age 20.[27, 28] PCOS can cause obesity, excess body hair, an irregular menstrual cycle, and other serious symptoms. Most of these symptoms will improve after stopping treatment with valproic acid. Young girls and women taking valproic acid should be monitored carefully by a doctor.[29]

**Atypical antipsychotics** are sometimes used to treat symptoms of bipolar disorder. Those approved by the FDA to treat youth with bipolar disorder are risperidone (Risperdal), aripiprazole (Abilify), quetiapine (Seroquel), and olanzapine (Zyprexa). Short-term treatment with risperidone can help reduce symptoms of mania or mixed mania in children ages 10 and up. Some research has indicated that risperidone is more effective in treating mania in young children than other medications.[30] Aripiprazole and quetiapine are approved to treat mania symptoms in children 10–17 years old who have bipolar I, while olanzapine is approved for use in children ages 13–17.[31]

### *What are the side effects of atypical antipsychotics?*

Side effects of many atypical antipsychotics include:

- Drowsiness
- Dizziness when changing positions
- Blurred vision
- Rapid heartbeat
- Sensitivity to the sun
- Skin rashes
- Menstrual problems for girls
- Weight gain.

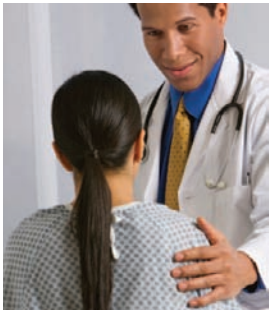
Atypical antipsychotics can cause major weight gain and changes in metabolism, especially in children. This may increase the risk of developing diabetes and high cholesterol.[32] While taking an atypical antipsychotic, your child's weight, glucose levels, and lipid levels should be monitored regularly by a doctor.

In rare cases, long-term use of atypical antipsychotics may lead to a condition called tardive dyskinesia (TD). The condition causes uncontrollable muscle movements that commonly occur around the mouth. TD can range from mild to severe. Sometimes people with TD recover partially or fully after they stop taking the drug, but others do not.

**Antidepressants,** such as fluoxetine (Prozac), paroxetine (Paxil), and sertraline (Zoloft) are sometimes used to treat symptoms of depression in bipolar disorder. Doctors who prescribe antidepressants for bipolar disorder usually prescribe a mood stabilizer or anticonvulsant medication at the same time. If your child takes only an antidepressant, he or she may be at risk of switching to mania or hypomania. He or she may also be at risk of developing rapid cycling symptoms.[33] Rapid cycling occurs when someone has four or more episodes of major depression, mania, hypomania, or mixed symptoms within a year.[34]

However, results on effectiveness of antidepressants for treating bipolar depression are mixed. The STEP-BD study showed that, in adults, adding an antidepressant to a mood stabilizer is no more effective in treating depression than using a mood stabilizer alone.[35]

### *What are the side effects of antidepressants?*



Antidepressants can cause:

- Headache
- Nausea (feeling sick to your stomach)
- Sleep problems, such as sleeplessness or drowsiness
- Agitation (feeling jittery)
- Sexual problems, which can affect both men and women.

Some antidepressants are more likely to cause certain side effects than other antidepressants. Your doctor or pharmacist can answer questions about these medications.

Antidepressants carry an FDA warning. Although they are generally safe and popular, some studies have suggested that they may have unintentional side-effects in some people, especially teens and young adults. The FDA warning says that patients of all ages taking antidepressants should be watched closely, especially during the first

few weeks of treatment. Possible side effects to look for are depression that gets worse, suicidal thinking or behavior, or any unusual changes in behavior such as trouble sleeping, agitation, or withdrawal from normal social situations. Families and caregivers should report any changes to the doctor. The latest information from the FDA can be found at http://www.fda.gov.

**Unusual or severe side effects of any medication should be reported to a health care provider right away.** Your child may need a change in the dose or a different medication.

**Children and teens being treated for bipolar disorder should not stop taking a medication without talking to a doctor first.** Suddenly stopping a medication may lead to "rebound," or worsening of bipolar disorder symptoms, or other uncomfortable or possibly dangerous withdrawal effects.

### Sexual Activity, Pregnancy, and Adolescents with Bipolar Disorder

Many teens make risky choices about sex. But having bipolar disorder is also linked with impulsive and risky choices. Teenage girls with bipolar disorder who are pregnant or may become pregnant face special challenges because medications for the illness may have harmful effects on a developing fetus or nursing infant.[36] Specifically, lithium and valproic acid should not be used during pregnancy. Also, some medications may reduce the effectiveness of birth control pills.[37] For more information on managing bipolar disorder during and after pregnancy, see the NIMH booklet *Bipolar Disorder in Adults.*

## Psychotherapy

In addition to medication, psychotherapy can be an effective treatment for bipolar disorder. When treating bipolar disorder, psychotherapy is usually prescribed in combination with medication. Studies in adults show that it can provide support, education, and guidance to people with bipolar disorder and their families. Psychotherapy may also help children continue taking their medications to stay healthy and prevent relapse.

Some psychotherapy treatments used for bipolar disorder include:

- **Cognitive behavioral therapy,** which helps young people with bipolar disorder learn to change harmful or negative thought patterns and behaviors.
- **Family-focused therapy,** which includes a child's family members. It helps enhance family coping strategies, such as recognizing new episodes early and helping their child. This therapy also improves communication and problem-solving.
- **Interpersonal and social rhythm therapy,** which helps children and teens with bipolar disorder improve their relationships with others and manage their daily routines. Regular daily routines and sleep schedules may help protect against manic episodes.
- **Psychoeducation,** which teaches young people with bipolar disorder about the illness and its treatment. This treatment helps people recognize signs of an impending relapse, allowing them time to seek treatment early, before a full-blown episode occurs. Psychoeducation also may be helpful for family members and caregivers.

Other types of therapies may be tried as well, or used along with those mentioned above. The number, frequency, and type of psychotherapy sessions should be based on your child's treatment needs.

A licensed psychologist, social worker, or counselor typically provides these therapies. He or she should work with your child's doctor to monitor care. In addition to getting therapy to help reduce symptoms of bipolar disorder, children and teens may also benefit from therapies that address problems at school, work, or in the community. Such therapies may target communication skills, problem-solving skills, or skills for school or work. Other programs, such as those provided by social welfare programs or support and advocacy groups, can help as well.[38]

Some children with bipolar disorder may also have learning disorders or language problems.[39] Your child's school may need to make accommodations that reduce the stresses of a school day and provide proper support or interventions.

You can find more information about psychotherapy on the NIMH website at http://www.nimh.nih.gov/health/topics/psychotherapies/index.shtml.

## What can children and adolescents with bipolar disorder expect from treatment?

There is no cure for bipolar disorder, but it can be treated effectively over the long term. You and your child's doctor should keep track of your child's symptoms and treatment effects to decide whether changes to the treatment plan are needed. One way to do this is by creating a mood or daily life chart, where you and the doctor can track your child's moods, treatments, sleep patterns, and life events. The chart can help you track and treat the illness more effectively. Be sure to work closely with your child's treatment providers. Talk openly and frequently with them about treatment choices.

Sometimes a child may switch from one type of bipolar disorder to another. This calls for a change in treatment. In the NIMH-funded Course and Outcome of Bipolar Illness in Youth (COBY) study, researchers found that roughly 30 percent children with BP-NOS later switched to bipolar I or II. Also, roughly 20 percent of children who started out with a diagnosis of bipolar II switched to bipolar I.[40] Because different medications may be more helpful for one type of symptom than another (manic or depressive), your child may need to change medications or try different treatments if his or her symptoms change.

The COBY study also showed that treatment helped around 70 percent of children with bipolar disorder recover from their most recent episode (either manic or depressive) over the course of about a year and half. However, within the next year or so, symptoms returned in half of the children who recovered. Children with bipolar I or II tended to recover faster than those with BP-NOS, but their symptoms returned more frequently as well.

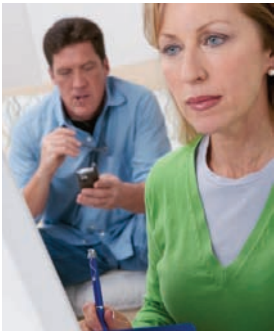
If your child has other psychiatric illnesses, such as an anxiety disorder, eating disorder, or substance abuse disorder, he or she may be more likely to experience a relapse—especially of depressive symptoms.[41] Scientists are unsure how these co-existing illnesses increase the chance of relapse.

As we work to find ways to better understand and treat the disorder in children, NIMH is also spearheading the Research Domain Criteria (RDoC) Project, which in an ongoing effort to map our current understanding of the brain circuitry that is involved in behavioral and cognitive functioning. By essentially breaking down mental disorders into their component pieces—RDoC aims to add to the knowledge we have gained from more traditional research approaches that focus solely on understanding mental disorders based on symptoms. The hope is that by changing the way we approach mental disorders, RDoC will help us open the door to new targets of preventive and treatment interventions.

## Where can families of children with bipolar disorder get help?

As with other serious illnesses, taking care of a child with bipolar disorder is very hard on the parents, family, and other caregivers. Caregivers often must tend to the medical needs of their child while dealing with how it affects their own health and the health of their other children. The stress that caregivers are under may lead to missed work or lost free time. It can strain relationships with people who do not understand the situation and lead to physical and mental exhaustion.

Stress from caregiving can make it hard to cope with your child's bipolar symptoms. One study shows that if a caregiver is under a lot of stress, his or her loved one has more trouble sticking to the treatment plan, which increases the chance for a relapse of symptoms.[42] It is important to take care of your own physical and mental health. You may also find it helpful to join a local support group. If your child's illness prevents you from attending a local support group, try an online support group.



If you are unsure where to go for help, ask your family doctor. Others who can help are listed below.

- Mental health specialists, such as psychiatrists, psychologists, social workers, or mental health counselors
- Health maintenance organizations

- Community mental health centers
- Hospital psychiatry departments and outpatient clinics
- Mental health programs at universities or medical schools
- State hospital outpatient clinics
- Family services, social agencies, or clergy
- Peer support groups
- Private clinics and facilities
- Employee assistance programs
- Local medical and/or psychiatric societies.

You can also check the phone book under “mental health,” “health,” “social services,” “hotlines,” or “physicians” for phone numbers and addresses. An emergency room doctor can also provide temporary help and can tell you where and how to get further help.

## What if my child is in crisis?

If you think your child is in crisis:

- Call your doctor
- Call 911 or go to a hospital emergency room to get immediate help or ask a friend or family member to help you do these things
- Call the toll-free, 24-hour hotline of the National Suicide Prevention Lifeline at 1-800-273-TALK (1-800-273-8255); TTY: 1-800-799-4TTY (4889) to talk to a trained counselor
- Make sure your child is not left alone.

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