THE NATIONAL INSTITUTE OF MENTAL HEALTH GUIDES TO:

ATTENTION DEFICIT HYPERACTIVITY DISORDER
BIPOLAR DISORDER
BORDERLINE PERSONALITY DISORDER
EATING DISORDERS
GENERALIZED ANXIETY DISORDER
OBSESSIVE COMPULSIVE DISORDER
PANIC DISORDER
POST-TRAUMATIC STRESS DISORDER
SOCIAL PHOBIA (SOCIAL ANXIETY DISORDER)
SCHIZOPHRENIA
SUICIDE PREVENTION
ABOUT THIS READING MATERIAL:

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Attention Deficit Hyperactivity Disorder

WHAT IS ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD, ADD)?

Attention deficit hyperactivity disorder (ADHD) is one of the most common childhood disorders and can continue through adolescence and adulthood. Symptoms include difficulty staying focused and paying attention, difficulty controlling behavior, and hyperactivity (over-activity).

ADHD has three subtypes:

Predominantly hyperactive-impulsive

- Most symptoms (six or more) are in the hyperactivity-impulsivity categories.
- Fewer than six symptoms of inattention are present, although inattention may still be present to some degree.

Predominantly inattentive

- The majority of symptoms (six or more) are in the inattention category and fewer than six symptoms of hyperactivity-impulsivity are present, although hyperactivity-impulsivity may still be present to some degree.
- Children with this subtype are less likely to act out or have difficulties getting along with other children. They may sit quietly, but they are not paying attention to what they are doing. Therefore, the child may be overlooked, and parents and teachers may not notice that he or she has ADHD.

Combined hyperactive-impulsive and inattentive

- Six or more symptoms of inattention and six or more symptoms of hyperactivity-impulsivity are present.
- Most children have the combined type of ADHD.

SIGNS & SYMPTOMS

Inattention, hyperactivity, and impulsivity are the key behaviors of ADHD. It is normal for all children to be inattentive, hyperactive, or impulsive sometimes, but for children with ADHD, these behaviors are more severe and occur more often. To be diagnosed with the disorder, a child must have symptoms for 6 or more months and to a degree that is greater than other children of the same age.
Children who have symptoms of **inattention** may:

- Be easily distracted, miss details, forget things, and frequently switch from one activity to another
- Have difficulty focusing on one thing
- Become bored with a task after only a few minutes, unless they are doing something enjoyable
- Have difficulty focusing attention on organizing and completing a task or learning something new
- Have trouble completing or turning in homework assignments, often losing things (e.g., pencils, toys, assignments) needed to complete tasks or activities
- Not seem to listen when spoken to
- Daydream, become easily confused, and move slowly
- Have difficulty processing information as quickly and accurately as others
- Struggle to follow instructions.

Children who have symptoms of **hyperactivity** may:

- Fidget and squirm in their seats
- Talk nonstop
- Dash around, touching or playing with anything and everything in sight
- Have trouble sitting still during dinner, school, and story time
- Be constantly in motion
- Have difficulty doing quiet tasks or activities.

Children who have symptoms of **impulsivity** may:

- Be very impatient
- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turns in games
- Often interrupt conversations or others’ activities.

**ADHD CAN BE MISTAKEN FOR OTHER PROBLEMS**

Parents and teachers can miss the fact that children with symptoms of inattention have the disorder because they are often quiet and less likely to act out. They may sit quietly, seeming to work, but they are often not paying attention to what they are doing. They may get along well with other children, compared with those with the other subtypes, who tend to have social problems. But children with the inattentive kind of ADHD are not the only ones whose disorders can be missed. For example,
adults may think that children with the hyperactive and impulsive subtypes just have emotional or disciplinary problems.

WHO IS AT RISK?

ADHD is one of the most common childhood disorders and can continue through adolescence and into adulthood. The average age of onset is 7 years old.

ADHD affects about 4.1% American adults age 18 years and older in a given year. The disorder affects 9.0% of American children age 13 to 18 years. Boys are four times at risk than girls.

Studies show that the number of children being diagnosed with ADHD is increasing, but it is unclear why.

DIAGNOSIS

Children mature at different rates and have different personalities, temperaments, and energy levels. Most children get distracted, act impulsively, and struggle to concentrate at one time or another. Sometimes, these normal factors may be mistaken for ADHD. ADHD symptoms usually appear early in life, often between the ages of 3 and 6, and because symptoms vary from person to person, the disorder can be hard to diagnose. Parents may first notice that their child loses interest in things sooner than other children, or seems constantly "out of control." Often, teachers notice the symptoms first, when a child has trouble following rules, or frequently "spaces out" in the classroom or on the playground.

No single test can diagnose a child as having ADHD. Instead, a licensed health professional needs to gather information about the child, and his or her behavior and environment. A family may want to first talk with the child's pediatrician. Some pediatricians can assess the child themselves, but many will refer the family to a mental health specialist with experience in childhood mental disorders such as ADHD. The pediatrician or mental health specialist will first try to rule out other possibilities for the symptoms. For example, certain situations, events, or health conditions may cause temporary behaviors in a child that seem like ADHD.

Between them, the referring pediatrician and specialist will determine if a child:

- Is experiencing undetected seizures that could be associated with other medical conditions
- Has a middle ear infection that is causing hearing problems
- Has any undetected hearing or vision problems
• Has any medical problems that affect thinking and behavior
• Has any learning disabilities
• Has anxiety or depression, or other psychiatric problems that might cause ADHD-like symptoms
• Has been affected by a significant and sudden change, such as the death of a family member, a divorce, or parent’s job loss.

A specialist will also check school and medical records for clues, to see if the child’s home or school settings appear unusually stressful or disrupted, and gather information from the child's parents and teachers. Coaches, babysitters, and other adults who know the child well also may be consulted.

The specialist also will ask:

• Are the behaviors excessive and long-term, and do they affect all aspects of the child’s life?
• Do they happen more often in this child compared with the child’s peers?
• Are the behaviors a continuous problem or a response to a temporary situation?
• Do the behaviors occur in several settings or only in one place, such as the playground, classroom, or home?

The specialist pays close attention to the child’s behavior during different situations. Some situations are highly structured, some have less structure. Others would require the child to keep paying attention. Most children with ADHD are better able to control their behaviors in situations where they are getting individual attention and when they are free to focus on enjoyable activities. These types of situations are less important in the assessment. A child also may be evaluated to see how he or she acts in social situations, and may be given tests of intellectual ability and academic achievement to see if he or she has a learning disability.

Finally, if after gathering all this information the child meets the criteria for ADHD, he or she will be diagnosed with the disorder.

Some children with ADHD also have other illnesses or conditions. For example, they may have one or more of the following:

• **A learning disability.** A child in preschool with a learning disability may have difficulty understanding certain sounds or words or have problems expressing himself or herself in words. A school-aged child may struggle with reading, spelling, writing, and math.
• **Oppositional defiant disorder.** Kids with this condition, in which a child is overly stubborn or rebellious, often argue with adults and refuse to obey rules.

• **Conduct disorder.** This condition includes behaviors in which the child may lie, steal, fight, or bully others. He or she may destroy property, break into homes, or carry or use weapons. These children or teens are also at a higher risk of using illegal substances. Kids with conduct disorder are at risk of getting into trouble at school or with the police.

• **Anxiety and depression.** Treating ADHD may help to decrease anxiety or some forms of depression.

• **Bipolar disorder.** Some children with ADHD may also have this condition in which extreme mood swings go from mania (an extremely high elevated mood) to depression in short periods of time.

• **Tourette syndrome.** Very few children have this brain disorder, but among those who do, many also have ADHD. Some people with Tourette syndrome have nervous tics and repetitive mannerisms, such as eye blinks, facial twitches, or grimacing. Others clear their throats, snort, or sniff frequently, or bark out words inappropriately. These behaviors can be controlled with medication.

ADHD also may coexist with a sleep disorder, bed-wetting, substance abuse, or other disorders or illnesses.

Recognizing ADHD symptoms and seeking help early will lead to better outcomes for both affected children and their families.

**HOW IS ADHD DIAGNOSED IN ADULTS?**

Like children, adults who suspect they have ADHD should be evaluated by a licensed mental health professional. But the professional may need to consider a wider range of symptoms when assessing adults for ADHD because their symptoms tend to be more varied and possibly not as clear-cut as symptoms seen in children.

To be diagnosed with the condition, an adult must have ADHD symptoms that began in childhood and continued throughout adulthood. Health professionals use certain rating scales to determine if an adult meets the diagnostic criteria for ADHD. The mental health professional also will look at the person's history of childhood behavior and school experiences, and will interview spouses or partners, parents, close friends, and other associates. The person will also undergo a physical exam and various psychological tests.
For some adults, a diagnosis of ADHD can bring a sense of relief. Adults who have had the disorder since childhood, but who have not been diagnosed, may have developed negative feelings about themselves over the years. Receiving a diagnosis allows them to understand the reasons for their problems, and treatment will allow them to deal with their problems more effectively.

TREATMENTS

Currently available treatments focus on reducing the symptoms of ADHD and improving functioning. Treatments include medication, various types of psychotherapy, education or training, or a combination of treatments.

Treatments can relieve many of the disorder's symptoms, but there is no cure. With treatment, most people with ADHD can be successful in school and lead productive lives. Researchers are developing more effective treatments and interventions, and using new tools such as brain imaging, to better understand ADHD and to find more effective ways to treat and prevent it.

MEDICATIONS

The most common type of medication used for treating ADHD is called a "stimulant." Although it may seem unusual to treat ADHD with a medication considered a stimulant, it actually has a calming effect on children with ADHD. Many types of stimulant medications are available. A few other ADHD medications are non-stimulants and work differently than stimulants. For many children, ADHD medications reduce hyperactivity and impulsivity and improve their ability to focus, work, and learn. Medication also may improve physical coordination.

However, a one-size-fits-all approach does not apply for all children with ADHD. What works for one child might not work for another. One child might have side effects with a certain medication, while another child may not. Sometimes several different medications or dosages must be tried before finding one that works for a particular child. Any child taking medications must be monitored closely and carefully by caregivers and doctors.

Stimulant medications come in different forms, such as a pill, capsule, liquid, or skin patch. Some medications also come in short-acting, long-acting, or extended release varieties. In each of these varieties, the active ingredient is the same, but it is released differently in the body. Long-acting or extended release forms often allow a child to take the medication just once a day before school, so they don't have to make a daily trip to the school nurse for another dose. Parents and doctors should
decide together which medication is best for the child and whether the child needs medication only for school hours or for evenings and weekends, too.

A list of medications and the approved age for use follows. ADHD can be diagnosed and medications prescribed by M.D.s (usually a psychiatrist) and in some states also by clinical psychologists, psychiatric nurse practitioners, and advanced psychiatric nurse specialists. Check with your state's licensing agency for specifics.

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Generic Name</th>
<th>Approved Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adderall</td>
<td>amphetamine</td>
<td>3 and older</td>
</tr>
<tr>
<td>Adderall XR</td>
<td>amphetamine (extended release)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Concerta</td>
<td>methylphenidate (long acting)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Daytrana</td>
<td>methylphenidate patch</td>
<td>6 and older</td>
</tr>
<tr>
<td>Desoxyn</td>
<td>methamphetamine hydrochloride</td>
<td>6 and older</td>
</tr>
<tr>
<td>Dexedrine</td>
<td>dextroamphetamine</td>
<td>3 and older</td>
</tr>
<tr>
<td>Dextrostat</td>
<td>dextroamphetamine</td>
<td>3 and older</td>
</tr>
<tr>
<td>Focalin</td>
<td>dexamethylphenidate</td>
<td>6 and older</td>
</tr>
<tr>
<td>Focalin XR</td>
<td>dexamethylphenidate (extended release)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Metadate ER</td>
<td>methylphenidate (extended release)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Metadate CD</td>
<td>methylphenidate (extended release)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Methylin</td>
<td>methylphenidate (oral solution and chewable tablets)</td>
<td>6 and older</td>
</tr>
<tr>
<td>Ritalin</td>
<td>methylphenidate</td>
<td>6 and older</td>
</tr>
</tbody>
</table>
**Ritalin SR**  methylphenidate (extended release)  6 and older

**Ritalin LA**  methylphenidate (long acting)  6 and older

**Strattera**  atomoxetine  6 and older

**Vyvanse**  lisdexamfetamine dimesylate  6 and older

*Not all ADHD medications are approved for use in adults.*

**NOTE:** "extended release" means the medication is released gradually so that a controlled amount enters the body over a period of time. "Long acting" means the medication stays in the body for a long time.

Over time, this list will grow, as researchers continue to develop new medications for ADHD. Medication guides for each of these medications are available from the [U.S. Food and Drug Administration](https://www.fda.gov) (FDA).

**WHAT ARE THE SIDE EFFECTS OF STIMULANT MEDICATIONS?**

The most commonly reported side effects are decreased appetite, sleep problems, anxiety, and irritability. Some children also report mild stomachaches or headaches. Most side effects are minor and disappear over time or if the dosage level is lowered.

- **Decreased appetite.** Be sure your child eats healthy meals. If this side effect does not go away, talk to your child's doctor. Also talk to the doctor if you have concerns about your child’s growth or weight gain while he or she is taking this medication.

- **Sleep problems.** If a child cannot fall asleep, the doctor may prescribe a lower dose of the medication or a shorter-acting form. The doctor might also suggest giving the medication earlier in the day, or stopping the afternoon or evening dose. Adding a prescription for a low dose of an antidepressant or a blood pressure medication called clonidine sometimes helps with sleep problems. A consistent sleep routine that includes relaxing elements like warm milk, soft music, or quiet activities in dim light, may also help.
• **Less common side effects.** A few children develop sudden, repetitive movements or sounds called tics. These tics may or may not be noticeable. Changing the medication dosage may make tics go away. Some children also may have a personality change, such as appearing "flat" or without emotion. **Talk with your child’s doctor if you see any of these side effects.**

**ARE STIMULANT MEDICATIONS SAFE?**

Under medical supervision, stimulant medications are considered safe. Stimulants do not make children with ADHD feel high, although some kids report feeling slightly different or "funny." Although some parents worry that stimulant medications may lead to substance abuse or dependence, there is little evidence of this.

**FDA WARNING ON POSSIBLE RARE SIDE EFFECTS**

In 2007, the FDA required that all makers of ADHD medications develop Patient Medication Guides that contain information about the risks associated with the medications. The guides must alert patients that the medications may lead to possible cardiovascular (heart and blood) or psychiatric problems. The agency undertook this precaution when a review of data found that ADHD patients with existing heart conditions had a slightly higher risk of strokes, heart attacks, and/or sudden death when taking the medications.

The review also found a slight increased risk, about 1 in 1,000, for medication-related psychiatric problems, such as hearing voices, having hallucinations, becoming suspicious for no reason, or becoming manic (an overly high mood), even in patients without a history of psychiatric problems. The FDA recommends that any treatment plan for ADHD include an initial health history, including family history, and examination for existing cardiovascular and psychiatric problems.

One ADHD medication, the non-stimulant atomoxetine (Strattera), carries another warning. Studies show that children and teenagers who take atomoxetine are more likely to have suicidal thoughts than children and teenagers with ADHD who do not take it. **If your child is taking atomoxetine, watch his or her behavior carefully. A child may develop serious symptoms suddenly, so it is important to pay attention to your child’s behavior every day.** Ask other people who spend a lot of time with your child to tell you if they notice changes in your child’s behavior. Call a doctor right away if your child shows any unusual behavior. While taking atomoxetine, your child should see a doctor often, especially at the beginning of treatment, and be sure that your child keeps all appointments with his or her doctor.
DO MEDICATIONS CURE ADHD?

Current medications do not cure ADHD. Rather, they control the symptoms for as long as they are taken. Medications can help a child pay attention and complete schoolwork. It is not clear, however, whether medications can help children learn or improve their academic skills. Adding behavioral therapy, counseling, and practical support can help children with ADHD and their families to better cope with everyday problems. Research funded by the National Institute of Mental Health (NIMH) has shown that medication works best when treatment is regularly monitored by the prescribing doctor and the dose is adjusted based on the child’s needs.

PSYCHOTHERAPY

Different types of psychotherapy are used for ADHD. Behavioral therapy aims to help a child change his or her behavior. It might involve practical assistance, such as help organizing tasks or completing schoolwork, or working through emotionally difficult events. Behavioral therapy also teaches a child how to monitor his or her own behavior. Learning to give oneself praise or rewards for acting in a desired way, such as controlling anger or thinking before acting, is another goal of behavioral therapy. Parents and teachers also can give positive or negative feedback for certain behaviors. In addition, clear rules, chore lists, and other structured routines can help a child control his or her behavior.

Therapists may teach children social skills, such as how to wait their turn, share toys, ask for help, or respond to teasing. Learning to read facial expressions and the tone of voice in others, and how to respond appropriately can also be part of social skills training.

HOW CAN PARENTS HELP?

Children with ADHD need guidance and understanding from their parents and teachers to reach their full potential and to succeed in school. Before a child is diagnosed, frustration, blame, and anger may have built up within a family. Parents and children may need special help to overcome bad feelings. Mental health professionals can educate parents about ADHD and how it impacts a family. They also will help the child and his or her parents develop new skills, attitudes, and ways of relating to each other.

Parenting skills training helps parents learn how to use a system of rewards and consequences to change a child’s behavior. Parents are taught to give immediate and positive feedback for behaviors they want to encourage, and ignore or redirect
behaviors they want to discourage. In some cases, the use of "time-outs" may be used when the child’s behavior gets out of control. In a time-out, the child is removed from the upsetting situation and sits alone for a short time to calm down.

Parents are also encouraged to share a pleasant or relaxing activity with the child, to notice and point out what the child does well, and to praise the child’s strengths and abilities. They may also learn to structure situations in more positive ways. For example, they may restrict the number of playmates to one or two, so that their child does not become overstimulated. Or, if the child has trouble completing tasks, parents can help their child divide large tasks into smaller, more manageable steps. Also, parents may benefit from learning stress-management techniques to increase their own ability to deal with frustration, so that they can respond calmly to their child’s behavior.

Sometimes, the whole family may need therapy. Therapists can help family members find better ways to handle disruptive behaviors and to encourage behavior changes. Finally, support groups help parents and families connect with others who have similar problems and concerns. Groups often meet regularly to share frustrations and successes, to exchange information about recommended specialists and strategies, and to talk with experts.

**HOW IS ADHD TREATED IN ADULTS?**

Much like children with the disorder, adults with ADHD are treated with medication, psychotherapy, or a combination of treatments.

**Medications.** ADHD medications, including extended-release forms, often are prescribed for adults with ADHD, but not all of these medications are approved for adults. However, those not approved for adults still may be prescribed by a doctor on an "off-label" basis.

Although not FDA-approved specifically for the treatment of ADHD, antidepressants are sometimes used to treat adults with ADHD. Older antidepressants, called tricyclics, are sometimes used because they, like stimulants, affect the brain chemicals norepinephrine and dopamine. A newer antidepressant, venlafaxine (Effexor), also may be prescribed for its effect on the brain chemical norepinephrine. And in recent clinical trials, the antidepressant bupropion (Wellbutrin), which affects the brain chemical dopamine, showed benefits for adults with ADHD.

Adult prescriptions for stimulants and other medications require special considerations. For example, adults often require other medications for physical
problems, such as diabetes or high blood pressure, or for anxiety and depression. Some of these medications may interact badly with stimulants. An adult with ADHD should discuss potential medication options with his or her doctor. These and other issues must be taken into account when a medication is prescribed.

**Education and psychotherapy.** A professional counselor or therapist can help an adult with ADHD learn how to organize his or her life with tools such as a large calendar or date book, lists, reminder notes, and by assigning a special place for keys, bills, and paperwork. Large tasks can be broken down into more manageable, smaller steps so that completing each part of the task provides a sense of accomplishment.

Psychotherapy, including cognitive behavioral therapy, also can help change one's poor self-image by examining the experiences that produced it. The therapist encourages the adult with ADHD to adjust to the life changes that come with treatment, such as thinking before acting, or resisting the urge to take unnecessary risks.

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**LIVING WITH**

**TIPS TO HELP KIDS STAY ORGANIZED AND FOLLOW DIRECTIONS**

**Schedule.** Keep the same routine every day, from wake-up time to bedtime. Include time for homework, outdoor play, and indoor activities. Keep the schedule on the refrigerator or on a bulletin board in the kitchen. Write changes on the schedule as far in advance as possible.

**Organize everyday items.** Have a place for everything, and keep everything in its place. This includes clothing, backpacks, and toys.

**Use homework and notebook organizers.** Use organizers for school material and supplies. Stress to your child the importance of writing down assignments and bringing home the necessary books.

**Be clear and consistent.** Children with ADHD need consistent rules they can understand and follow.

**Give praise or rewards when rules are followed.** Children with ADHD often receive and expect criticism. Look for good behavior, and praise it.

Some children with ADHD continue to have it as adults. And many adults who have the disorder don’t know it. They may feel that it is impossible to get organized, stick to a job, or remember and keep appointments. Daily tasks such as getting up in the
morning, preparing to leave the house for work, arriving at work on time, and being productive on the job can be especially challenging for adults with ADHD.

These adults may have a history of failure at school, problems at work, or difficult or failed relationships. Many have had multiple traffic accidents. Like teens, adults with ADHD may seem restless and may try to do several things at once, most of them unsuccessfully. They also tend to prefer "quick fixes," rather than taking the steps needed to achieve greater rewards.

**CLINICAL TRIALS**

NIMH supports research studies on mental health and disorders. See also: A Participant’s Guide to Mental Health Clinical Research.

Participate, refer a patient or learn about results of studies in [ClinicalTrials.gov](https://clinicaltrials.gov), the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with [ADHD](https://www.nimh.nih.gov/health/topics/adhd/index.shtml).
Bipolar Disorder

WHAT IS BIPOLAR DISORDER?

Bipolar disorder, also known as manic-depressive illness, is a brain disorder that causes unusual shifts in mood, energy, activity levels, and the ability to carry out day-to-day tasks. Symptoms of bipolar disorder are 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 job or school performance, and even suicide. But bipolar disorder can be treated, and people with this illness can lead full and productive lives.

CAUSES

Scientists are studying the possible causes of bipolar disorder. Most scientists agree that there is no single cause. Rather, many factors likely act together to produce the illness or increase risk.

GENETICS

Bipolar disorder tends to run in families. Some research has suggested that people with certain genes are more likely to develop bipolar disorder than others. Children with a parent or sibling who has bipolar disorder are much more likely to develop the illness, compared with children who do not have a family history of bipolar disorder. However, most children with a family history of bipolar disorder will not develop the illness.

Technological advances are improving genetic research on bipolar disorder. One example is the launch of the Bipolar Disorder Phenome Database, funded in part by NIMH. Using the database, scientists will be able to link visible signs of the disorder with the genes that may influence them.

Scientists are also studying illnesses with similar symptoms such as depression and schizophrenia to identify genetic differences that may increase a person's risk for developing bipolar disorder. Finding these genetic "hotspots" may also help explain how environmental factors can increase a person's risk.

But genes are not the only risk factor for bipolar disorder. Studies of identical twins have shown that the twin of a person with bipolar illness does not always develop the disorder, despite the fact that identical twins share all of the same genes. Research suggests that factors besides genes are also at work. It is likely that many
different genes and environmental factors are involved. However, scientists do not yet fully understand how these factors interact to cause bipolar disorder.

**BRAIN STRUCTURE AND FUNCTIONING**

Brain-imaging tools, such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), allow researchers to take pictures of the living brain at work. These tools help scientists study the brain’s structure and activity.

Some imaging studies show how the brains of people with bipolar disorder may differ from the brains of healthy people or people with other mental disorders. For example, one study using MRI found that the pattern of brain development in children with bipolar disorder was similar to that in children with "multi-dimensional impairment," a disorder that causes symptoms that overlap somewhat with bipolar disorder and schizophrenia. This suggests that the common pattern of brain development may be linked to general risk for unstable moods.

Another MRI study found that the brain’s prefrontal cortex in adults with bipolar disorder tends to be smaller and function less well compared to adults who don’t have bipolar disorder. The prefrontal cortex is a brain structure involved in "executive" functions such as solving problems and making decisions. This structure and its connections to other parts of the brain mature during adolescence, suggesting that abnormal development of this brain circuit may account for why the disorder tends to emerge during a person’s teen years. Pinpointing brain changes in youth may help us detect illness early or offer targets for early intervention.

The connections between brain regions are important for shaping and coordinating functions such as forming memories, learning, and emotions, but scientists know little about how different parts of the human brain connect. Learning more about these connections, along with information gained from genetic studies, helps scientists better understand bipolar disorder. Scientists are working towards being able to predict which types of treatment will work most effectively.

**SIGNS & SYMPTOMS**

People with bipolar disorder experience unusually intense emotional states that occur in distinct periods called "mood episodes." 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, and 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.

Extreme changes in energy, activity, sleep, and behavior go along with these changes in mood. Symptoms of bipolar disorder are described below.

<table>
<thead>
<tr>
<th>Symptoms of mania or a manic episode include:</th>
<th>Symptoms of depression or a depressive episode include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Changes</td>
<td>Mood Changes</td>
</tr>
<tr>
<td>A long period of feeling &quot;high,&quot; or an overly happy or outgoing mood</td>
<td>An overly long period of feeling sad or hopeless</td>
</tr>
<tr>
<td>Extreme irritability</td>
<td>Loss of interest in activities once enjoyed, including sex.</td>
</tr>
<tr>
<td>Behavioral Changes</td>
<td>Behavioral Changes</td>
</tr>
<tr>
<td>Talking very fast, jumping from one idea to another, having racing thoughts</td>
<td>Feeling tired or &quot;slowed down&quot;</td>
</tr>
<tr>
<td>Being easily distracted</td>
<td>Having problems concentrating, remembering, and making decisions</td>
</tr>
<tr>
<td>Increasing activities, such as taking on new projects</td>
<td>Being restless or irritable</td>
</tr>
<tr>
<td>Being overly restless</td>
<td>Changing eating, sleeping, or other habits</td>
</tr>
<tr>
<td>Sleeping little or not being tired</td>
<td>Thinking of death or suicide, or attempting suicide.</td>
</tr>
<tr>
<td>Having an unrealistic belief in one's abilities</td>
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<tr>
<td>Behaving impulsively and engaging in pleasurable, high-risk behaviors</td>
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</tbody>
</table>

Bipolar disorder can be present even when mood swings are less extreme. For example, some people with bipolar disorder experience hypomania, a less severe form of mania. During a hypomannic episode, you may feel very good, be highly productive, and function well. You may not feel that anything is wrong, but family and friends may recognize the mood swings as possible bipolar disorder. Without proper treatment, people with hypomania may develop severe mania or depression.
Bipolar disorder may also be present in a mixed state, in which you might experience both mania and depression at the same time. During a mixed state, you might feel very agitated, have trouble sleeping, experience major changes in appetite, and have suicidal thoughts. People in a mixed state may feel very sad or hopeless while at the same time feel extremely energized. Note: The DSM-5 replaced the diagnosis of ‘mixed episode’ with the specifier ‘with mixed features’ that can be applied to major depression, hypomania, or mania.

Sometimes, a person with severe episodes of mania or depression has psychotic symptoms too, such as hallucinations or delusions. The psychotic symptoms tend to reflect the person’s extreme mood. For example, if you are having psychotic symptoms during a manic episode, you may believe you are a famous person, have a lot of money, or have special powers. If you are having psychotic symptoms during a depressive episode, you may believe you are ruined and penniless, or you have committed a crime. As a result, people with bipolar disorder who have psychotic symptoms are sometimes misdiagnosed with schizophrenia.

People with bipolar disorder may also abuse alcohol or substances, have relationship problems, or perform poorly in school or at work. It may be difficult to recognize these problems as signs of a major mental illness.

Bipolar disorder usually lasts a lifetime. Episodes of mania and depression typically come back over time. Between episodes, many people with bipolar disorder are free of symptoms, but some people may have lingering symptoms.

**WHO IS AT RISK?**

Bipolar disorder often develops in a person’s late teens or early adult years. At least half of all cases start before age 25. Some people have their first symptoms during childhood, while others may develop symptoms late in life.

**DIAGNOSIS**

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

1. **Bipolar I Disorder**—defined by manic or mixed episodes that last at least seven 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. Note: the diagnosis of mixed episode has been
replaced with the specifier ‘with mixed features’ in the DSM-5 and can be applied to episodes of major depression, hypomania, or mania.

2 Bipolar II Disorder—defined by a pattern of depressive episodes and hypomanic episodes, but no full-blown manic or mixed episodes. *Note: the diagnosis of mixed episode has been replaced with the specifier ‘with mixed features’ in the DSM-5 and can be applied to episodes of major depression, hypomania, or mania.*

3 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. *Note: The DSM IV’s Not Otherwise Specified (NOS) category has been replaced with ‘other specified’ and ‘unspecified’ in the DSM-5.*

4 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.

A severe form of the disorder is called **Rapid-cycling Bipolar Disorder**. Rapid cycling occurs when a person has four or more episodes of major depression, mania, hypomania, or mixed states, all within a year. Rapid cycling seems to be more common in people who have their first bipolar episode at a younger age. One study found that people with rapid cycling had their first episode about 4 years earlier—during the mid to late teen years—than people without rapid cycling bipolar disorder. Rapid cycling affects more women than men. Rapid cycling can come and go.

When getting a diagnosis, a doctor or health care provider should conduct a physical examination, an interview, and lab tests. Currently, bipolar disorder cannot be identified through a blood test or a brain scan, but these tests can help rule out other factors that may contribute to mood problems, such as a stroke, brain tumor, or thyroid condition. If the problems are not caused by other illnesses, your health care provider may conduct a mental health evaluation or provide a referral to a trained mental health professional, such as a psychiatrist, who is experienced in diagnosing and treating bipolar disorder.

The doctor or mental health professional should discuss with you any family history of bipolar disorder or other mental illnesses and get a complete history of symptoms. The doctor or mental health professional should also talk to your close relatives or spouse about your symptoms and family medical history.
People with bipolar disorder are more likely to seek help when they are depressed than when experiencing mania or hypomania. Therefore, a careful medical history is needed to assure that bipolar disorder is not mistakenly diagnosed as major depression. Unlike people with bipolar disorder, people who have depression only (also called unipolar depression) do not experience mania.

Bipolar disorder can worsen if left undiagnosed and untreated. Episodes may become more frequent or more severe over time without treatment. Also, delays in getting the correct diagnosis and treatment can contribute to personal, social, and work-related problems. Proper diagnosis and treatment help people with bipolar disorder lead healthy and productive lives. In most cases, treatment can help reduce the frequency and severity of episodes.

Substance abuse is very common among people with bipolar disorder, but the reasons for this link are unclear. Some people with bipolar disorder may try to treat their symptoms with alcohol or drugs. However, substance abuse may trigger or prolong bipolar symptoms, and the behavioral control problems associated with mania can result in a person drinking too much.

Anxiety disorders, such as post-traumatic stress disorder (PTSD) and social phobia, also co-occur often among people with bipolar disorder. Bipolar disorder also co-occurs with attention deficit hyperactivity disorder (ADHD), which has some symptoms that overlap with bipolar disorder, such as restlessness and being easily distracted.

People with bipolar disorder are also at higher risk for thyroid disease, migraine headaches, heart disease, diabetes, obesity, and other physical illnesses. These illnesses may cause symptoms of mania or depression. They may also result from treatment for bipolar disorder.

TREATMENTS

Bipolar disorder cannot be cured, but it can be treated effectively over the long-term. Proper treatment helps many people with bipolar disorder—even those with the most severe forms of the illness—gain better control of their mood swings and related symptoms. But because it is a lifelong illness, long-term, continuous treatment is needed to control symptoms. However, even with proper treatment, mood changes can occur. In the NIMH-funded Systematic Treatment Enhancement Program for Bipolar Disorder (STEP-BD) study—the largest treatment study ever conducted for bipolar disorder—almost half of those who recovered still had lingering symptoms. Having another mental disorder in addition to bipolar disorder increased one's chances for a relapse. See STEP-BD for more information.
Treatment is more effective if you work closely with a doctor and talk openly about your concerns and choices. An effective maintenance treatment plan usually includes a combination of medication and psychotherapy.

**MEDICATIONS**

Different types of medications can help control symptoms of bipolar disorder. Not everyone responds to medications in the same way. You may need to try several different medications before finding ones that work best for you.

Keeping a daily life chart that makes note of your daily mood symptoms, treatments, sleep patterns, and life events can help you and your doctor track and treat your illness most effectively. If your symptoms change or if side effects become intolerable, your doctor may switch or add medications.

The types of medications generally used to treat bipolar disorder include mood stabilizers, atypical antipsychotics, and antidepressants. For the most up-to-date information on medication use and their side effects, contact the U.S. Food and Drug Administration (FDA).

**Mood stabilizers** are usually the first choice to treat bipolar disorder. In general, people with bipolar disorder continue treatment with mood stabilizers for years. Lithium (also known as Eskalith or Lithobid) is an effective mood stabilizer. It was the first mood stabilizer approved by the FDA in the 1970's for treating both manic and depressive episodes.

Anticonvulsants are also used as mood stabilizers. They were originally developed to treat seizures, but they also help control moods. Anticonvulsants used as mood stabilizers include:

- Valproic acid or divalproex sodium (Depakote), approved by the FDA in 1995 for treating mania. It is a popular alternative to lithium. However, young women taking valproic acid face special precautions.
- Lamotrigine (Lamictal), FDA-approved for maintenance treatment of bipolar disorder. It is often effective in treating depressive symptoms.
- Other anticonvulsant medications, including gabapentin (Neurontin), topiramate (Topamax), and oxcarbazepine (Trileptal).

Valproic acid, lamotrigine, and other anticonvulsant medications have 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 monitored closely for new or worsening symptoms of depression, suicidal thoughts or behavior, or any unusual changes in mood or
behavior. If you take any of these medications, do not make any changes to your dosage without talking to your doctor.

What are the side effects of mood stabilizers?

Lithium can cause side effects such as:

- Restlessness
- Dry mouth
- Bloating or indigestion
- Acne
- Unusual discomfort to cold temperatures
- Joint or muscle pain
- Brittle nails or hair.

When taking lithium, your doctor should check the levels of lithium in your blood regularly, and will monitor your kidney and thyroid function as well. Lithium treatment may cause low thyroid levels in some people. Low thyroid function, called hypothyroidism, has been associated with rapid cycling in some people with bipolar disorder, especially women.

Because too much or too little thyroid hormone can lead to mood and energy changes, it is important that your doctor check your thyroid levels carefully. You may need to take thyroid medication, in addition to medications for bipolar disorder, to keep thyroid levels balanced.

Common side effects of other mood stabilizing medications include:

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

These medications may also be linked with rare but serious side effects. Talk with your doctor or a pharmacist to make sure you understand signs of serious side effects for the medications you’re taking. If extremely bothersome or unusual side effects occur, tell your doctor as soon as possible.
SHOULD YOUNG WOMEN TAKE VALPROIC ACID?

Valproic acid may increase levels of testosterone (a male hormone) in teenage girls. It could lead to a condition called polycystic ovary syndrome (PCOS) in women who begin taking the medication before age 20. 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.

Atypical antipsychotics are sometimes used to treat symptoms of bipolar disorder. Often, these medications are taken with other medications, such as antidepressants. Atypical antipsychotics include:

- Olanzapine (Zyprexa), which when given with an antidepressant medication, may help relieve symptoms of severe mania or psychosis. Olanzapine can be taken as a pill or a shot. The shot is often used for urgent treatment of agitation associated with a manic or mixed episode. Olanzapine can be used as maintenance treatment as well, even when psychotic symptoms are not currently present.
- Aripiprazole (Abilify), which is used to treat manic or mixed episodes. Aripiprazole is also used for maintenance treatment. Like olanzapine, aripiprazole can be taken as a pill or a shot. The shot is often used for urgent treatment of severe symptoms.
- Quetiapine (Seroquel), risperidone (Risperdal) and ziprasidone (Geodon) also are prescribed to relieve the symptoms of manic episodes.

What are the side effects of atypical antipsychotics?

If you are taking antipsychotics, you should not drive until you have adjusted to your medication. Side effects of many antipsychotics include:

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

Atypical antipsychotic medications can cause major weight gain and changes in your metabolism. This may increase your risk of getting diabetes and high cholesterol.
Your doctor should monitor your weight, glucose levels, and lipid levels regularly while you are taking these medications.

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

**Antidepressants** are sometimes used to treat symptoms of depression in bipolar disorder. Fluoxetine (Prozac), paroxetine (Paxil), sertraline (Zoloft), and bupropion (Wellbutrin) are examples of antidepressants that may be prescribed to treat symptoms of bipolar depression.

However, taking only an antidepressant can increase your risk of switching to mania or hypomania, or of developing rapid-cycling symptoms. To prevent this switch, doctors usually require you to take a mood-stabilizing medication at the same time as an antidepressant.

**WHAT ARE THE SIDE EFFECTS OF ANTIDEPRESSANTS?**

Antidepressants can cause:

- Headache
- Nausea (feeling sick to your stomach)
- Agitation (feeling jittery)
- Sexual problems, which can affect both men and women. These include reduced sex drive and problems having and enjoying sex.

Report any concerns about side effects to your doctor right away. You may need a change in the dose or a different medication. You should not stop taking a medication without talking to your doctor first. Suddenly stopping a medication may lead to "rebound" or worsening of bipolar disorder symptoms. Other uncomfortable or potentially dangerous withdrawal effects are also possible.

Some antidepressants are more likely to cause certain side effects than other types. Your doctor or pharmacist can answer questions about these medications. Any unusual reactions or side effects should be reported to a doctor immediately.

**SHOULD WOMEN WHO ARE PREGNANT OR MAY BECOME PREGNANT TAKE MEDICATION FOR BIPOLAR DISORDER?**
Women with bipolar disorder who are pregnant or may become pregnant face special challenges. Mood stabilizing medications can harm a developing fetus or nursing infant. But stopping medications, either suddenly or gradually, greatly increases the risk that bipolar symptoms will recur during pregnancy.

Lithium is generally the preferred mood-stabilizing medication for pregnant women with bipolar disorder. However, lithium can lead to heart problems in the fetus. In addition, women need to know that most bipolar medications are passed on through breast milk. The FDA has also issued warnings about the potential risks associated with the use of antipsychotic medications during pregnancy. If you are pregnant or nursing, talk to your doctor about the benefits and risks of all available treatments.

**FDA WARNING ON ANTIDEPRESSANTS**

Antidepressants are safe and popular, but some studies have suggested that they may have unintentional effects on some people, especially in adolescents 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. For the latest information, see the FDA website.

**PSYCHOTHERAPY**

When done in combination with medication, psychotherapy can be an effective treatment for bipolar disorder. It can provide support, education, and guidance to people with bipolar disorder and their families. Some psychotherapy treatments used to treat bipolar disorder include:

- **Cognitive behavioral therapy (CBT)**, which helps people with bipolar disorder learn to change harmful or negative thought patterns and behaviors.

- **Family-focused therapy**, which involves family members. It helps enhance family coping strategies, such as recognizing new episodes early and helping their loved one. This therapy also improves communication among family members, as well as problem-solving.

- **Interpersonal and social rhythm therapy**, which helps people 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 people with bipolar disorder about the illness and its treatment. Psychoeducation can help you recognize signs of an
impending mood swing so you can seek treatment early, before a full-blown episode occurs. Usually done in a group, psychoeducation may also be helpful for family members and caregivers.

In a STEP-BD study on psychotherapies, researchers compared people in two groups. The first group was treated with collaborative care (three sessions of psychoeducation over 6 weeks). The second group was treated with medication and intensive psychotherapy (30 sessions over 9 months of CBT, interpersonal and social rhythm therapy, or family-focused therapy). Researchers found that the second group had fewer relapses, lower hospitalization rates, and were better able to stick with their treatment plans. They were also more likely to get well faster and stay well longer. Overall, more than half of the study participants recovered over the course of 1 year.

A licensed psychologist, social worker, or counselor typically provides psychotherapy. He or she should work with your psychiatrist to track your progress. The number, frequency, and type of sessions should be based on your individual treatment needs. As with medication, following the doctor’s instructions for any psychotherapy will provide the greatest benefit.

Visit the NIMH website for more information on psychotherapy.

**OTHER TREATMENTS**

**Electroconvulsive Therapy (ECT)**—For cases in which medication and psychotherapy do not work, electroconvulsive therapy (ECT) may be useful. ECT, formerly known as "shock therapy," once had a bad reputation. But in recent years, it has greatly improved and can provide relief for people with severe bipolar disorder who have not been able to recover with other treatments.

Before ECT is administered, a patient takes a muscle relaxant and is put under brief anesthesia. He or she does not consciously feel the electrical impulse administered in ECT. On average, ECT treatments last from 30–90 seconds. People who have ECT usually recover after 5–15 minutes and are able to go home the same day.

Sometimes ECT is used for bipolar symptoms when other medical conditions, including pregnancy, make the use of medications too risky. ECT is a highly effective treatment for severely depressive, manic, or mixed episodes. But it is generally not used as a first-line treatment.

ECT may cause some short-term side effects, including confusion, disorientation, and memory loss. People with bipolar disorder should discuss possible benefits and risks of ECT with an experienced doctor.
Sleep Medications—People with bipolar disorder who have trouble sleeping usually sleep better after getting treatment for bipolar disorder. However, if sleeplessness does not improve, your doctor may suggest a change in medications. If the problems still continue, your doctor may prescribe sedatives or other sleep medications.

Herbal Supplements—In general, not much research has been conducted on herbal or natural supplements and how they may affect bipolar disorder. An herb called St. John’s wort (Hypericum perforatum), often marketed as a natural antidepressant, may cause a switch to mania in some people with bipolar disorder. St. John’s wort can also make other medications less effective, including some antidepressant and anticonvulsant medications. Scientists are also researching omega-3 fatty acids (most commonly found in fish oil) to measure their usefulness for long-term treatment of bipolar disorder. Study results have been mixed.

Be sure to tell your doctor about all prescription drugs, over-the-counter medications, or supplements you are taking. Certain medications and supplements taken together may cause unwanted or dangerous effects.

WHAT RESEARCH IS NIMH DOING TO IMPROVE TREATMENTS FOR BIPOLAR DISORDER?

Scientists are working to identify new targets for improving current medications or developing new treatments for bipolar disorder. In addition, NIMH researchers have made promising advances toward finding fast-acting medication treatment. In a small study of people with bipolar disorder whose symptoms had not responded to prior treatments, a single dose of ketamine—an anesthetic medication—significantly reduced symptoms of depression in as little as 40 minutes. These effects lasted about a week on average.

Ketamine itself is unlikely to become widely available as a treatment because it can cause serious side effects at high doses, such as hallucinations. However, scientists are working to understand how the drug works on the brain in an effort to develop treatments with fewer side effects and that act similarly to ketamine. Such medications could also be used for longer term management of symptoms.

In addition, NIMH is working to better understand bipolar disorder and other mental disorders by spearheading the Research Domain Criteria (RDoC) Project, which is 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.

### LIVING WITH

If you know someone who has bipolar disorder, it affects you too. The first and most important thing you can do is help him or her get the right diagnosis and treatment. You may need to make the appointment and go with him or her to see the doctor. Encourage your loved one to stay in treatment.

To help a friend or relative, you can:

- Offer emotional support, understanding, patience, and encouragement
- Learn about bipolar disorder so you can understand what your friend or relative is experiencing
- Talk to your friend or relative and listen carefully
- Listen to feelings your friend or relative expresses and be understanding about situations that may trigger bipolar symptoms
- Invite your friend or relative out for positive distractions, such as walks, outings, and other activities
- Remind your friend or relative that, with time and treatment, he or she can get better.

Never ignore comments from your friend or relative about harming himself or herself. Always report such comments to his or her therapist or doctor.

### HOW CAN CAREGIVERS FIND SUPPORT?

Like other serious illnesses, bipolar disorder can be difficult for spouses, family members, friends, and other caregivers. Relatives and friends often have to cope with the person’s serious behavioral problems, such as wild spending sprees during mania, extreme withdrawal during depression, or poor work or school performance. These behaviors can have lasting consequences.

Caregivers usually take care of the medical needs of their loved ones. But caregivers have to deal with how this affects their own health as well. Caregivers’ stress may lead to missed work or lost free time, strained relationships with people who may not understand the situation, and physical and mental exhaustion.

It can be very hard to cope with a loved one’s bipolar symptoms. One study shows that if a caregiver is under a lot of stress, his or her loved one has more trouble
following the treatment plan, which increases the chance for a major bipolar episode. If you are a caregiver of someone with bipolar disorder, it is important that you also make time to take care of yourself.

**HOW CAN I HELP MYSELF IF I HAVE BIPOLAR DISORDER?**

It may be very hard to take that first step to help yourself. It may take time, but you can get better with treatment. To help yourself:

- Talk to your doctor about treatment options and progress.
- Keep a regular routine, such as going to sleep at the same time every night and eating meals at the same time every day.
- Try hard to get enough sleep.
- Stay on your medication.
- Learn about warning signs signaling a shift into depression or mania.
- Expect your symptoms to improve gradually, not immediately.

Where can I go for help?

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 I OR SOMEONE I KNOW IS IN CRISIS?**
If you are thinking about harming yourself, or know someone who is, tell someone who can help immediately.

- 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 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 you or the suicidal person is not left alone.

**Clinical Trials**

NIMH supports research studies on mental health and disorders. See also: A Participant’s Guide to Mental Health Clinical Research.

Participate, refer a patient or learn about results of studies in ClinicalTrials.gov, the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with bipolar disorder.
Borderline Personality Disorder

WHAT IS BORDERLINE PERSONALITY DISORDER?

Borderline personality disorder (BPD) is a serious mental illness marked by unstable moods, behavior, and relationships. In 1980, the *Diagnostic and Statistical Manual for Mental Disorders, Third Edition* (DSM-III) listed BPD as a diagnosable illness for the first time. Most psychiatrists and other mental health professionals use the DSM to diagnose mental illnesses.

Because some people with severe BPD have brief psychotic episodes, experts originally thought of this illness as atypical, or borderline, versions of other mental disorders. While mental health experts now generally agree that the name "borderline personality disorder" is misleading, a more accurate term does not exist yet.

Most people who have BPD suffer from:

- Problems with regulating emotions and thoughts
- Impulsive and reckless behavior
- Unstable relationships with other people.

People with this disorder also have high rates of co-occurring disorders, such as depression, anxiety disorders, substance abuse, and eating disorders, along with self-harm, suicidal behaviors, and completed suicides.

CAUSES

Research on the possible causes and risk factors for BPD is still at a very early stage. However, scientists generally agree that genetic and environmental factors are likely to be involved.

Studies on twins with BPD suggest that the illness is strongly inherited. Another study shows that a person can inherit his or her temperament and specific personality traits, particularly impulsiveness and aggression. Scientists are studying genes that help regulate emotions and impulse control for possible links to the disorder.

Social or cultural factors may increase the risk for BPD. For example, being part of a community or culture in which unstable family relationships are common may increase a person’s risk for the disorder. Impulsiveness, poor judgment in lifestyle choices, and other consequences of BPD may lead individuals to risky situations.
Adults with borderline personality disorder are considerably more likely to be the victim of violence, including rape and other crimes.

**SIGNS & SYMPTOMS**

According to the DSM, Fourth Edition, Text Revision (DSM-IV-TR), to be diagnosed with borderline personality disorder, a person must show an enduring pattern of behavior that includes at least five of the following symptoms:

- Extreme reactions—including panic, depression, rage, or frantic actions—to abandonment, whether real or perceived
- A pattern of intense and stormy relationships with family, friends, and loved ones, often veering from extreme closeness and love (idealization) to extreme dislike or anger (devaluation)
- Distorted and unstable self-image or sense of self, which can result in sudden changes in feelings, opinions, values, or plans and goals for the future (such as school or career choices)
- Impulsive and often dangerous behaviors, such as spending sprees, unsafe sex, substance abuse, reckless driving, and binge eating
- Recurring suicidal behaviors or threats or self-harming behavior, such as cutting
- Intense and highly changeable moods, with each episode lasting from a few hours to a few days
- Chronic feelings of emptiness and/or boredom
- Inappropriate, intense anger or problems controlling anger
- Having stress-related paranoid thoughts or severe dissociative symptoms, such as feeling cut off from oneself, observing oneself from outside the body, or losing touch with reality.

Seemingly mundane events may trigger symptoms. For example, people with BPD may feel angry and distressed over minor separations—such as vacations, business trips, or sudden changes of plans—from people to whom they feel close. Studies show that people with this disorder may see anger in an emotionally neutral face and have a stronger reaction to words with negative meanings than people who do not have the disorder.

**SUICIDE AND SELF-HARM**

Self-injurious behavior includes suicide and suicide attempts, as well as self-harming behaviors, described below. As many as 80 percent of people with BPD have suicidal behaviors, and about 4 to 9 percent commit suicide.
Suicide is one of the most tragic outcomes of any mental illness. Some treatments can help reduce suicidal behaviors in people with BPD. For example, one study showed that dialectical behavior therapy (DBT) reduced suicide attempts in women by half compared with other types of psychotherapy, or talk therapy. DBT also reduced use of emergency room and inpatient services and retained more participants in therapy, compared to other approaches to treatment.

Unlike suicide attempts, self-harming behaviors do not stem from a desire to die. However, some self-harming behaviors may be life threatening. Self-harming behaviors linked with BPD include cutting, burning, hitting, head banging, hair pulling, and other harmful acts. People with BPD may self-harm to help regulate their emotions, to punish themselves, or to express their pain. They do not always see these behaviors as harmful.

WHO IS AT RISK?

According to data from a subsample of participants in a national survey on mental disorders, about 1.6 percent of adults in the United States have BPD in a given year. BPD usually begins during adolescence or early adulthood. Some studies suggest that early symptoms of the illness may occur during childhood.

DIAGNOSIS

Unfortunately, BPD is often underdiagnosed or misdiagnosed.

A mental health professional experienced in diagnosing and treating mental disorders—such as a psychiatrist, psychologist, clinical social worker, or psychiatric nurse—can detect BPD based on a thorough interview and a discussion about symptoms. A careful and thorough medical exam can help rule out other possible causes of symptoms.

The mental health professional may ask about symptoms and personal and family medical histories, including any history of mental illnesses. This information can help the mental health professional decide on the best treatment. In some cases, co-occurring mental illnesses may have symptoms that overlap with BPD, making it difficult to distinguish borderline personality disorder from other mental illnesses. For example, a person may describe feelings of depression but may not bring other symptoms to the mental health professional's attention.

Women with BPD are more likely to have co-occurring disorders such as major depression, anxiety disorders, or eating disorders. In men, BPD is more likely to co-occur with disorders such as substance abuse or antisocial personality disorder.
According to the NIMH-funded National Comorbidity Survey Replication—the largest national study to date of mental disorders in U.S. adults—about 85 percent of people with BPD also meet the diagnostic criteria for another mental illness. Other illnesses that often occur with BPD include diabetes, high blood pressure, chronic back pain, arthritis, and fibromyalgia. These conditions are associated with obesity, which is a common side effect of the medications prescribed to treat BPD and other mental disorders.

No single test can diagnose BPD. Scientists funded by NIMH are looking for ways to improve diagnosis of this disorder. One study found that adults with BPD showed excessive emotional reactions when looking at words with unpleasant meanings, compared with healthy people. People with more severe BPD showed a more intense emotional response than people who had less severe BPD.

TREATMENTS

BPD is often viewed as difficult to treat. However, recent research shows that BPD can be treated effectively, and that many people with this illness improve over time.

BPD can be treated with psychotherapy, or "talk" therapy. In some cases, a mental health professional may also recommend medications to treat specific symptoms. When a person is under more than one professional’s care, it is essential for the professionals to coordinate with one another on the treatment plan.

The treatments described below are just some of the options that may be available to a person with BPD. However, the research on treatments is still in very early stages. More studies are needed to determine the effectiveness of these treatments, who may benefit the most, and how best to deliver treatments.

PSYCHOTHERAPY

Psychotherapy is usually the first treatment for people with BPD. Current research suggests psychotherapy can relieve some symptoms, but further studies are needed to better understand how well psychotherapy works.

It is important that people in therapy get along with and trust their therapist. The very nature of BPD can make it difficult for people with this disorder to maintain this type of bond with their therapist.

Types of psychotherapy used to treat BPD include the following: Cognitive behavioral therapy (CBT). CBT can help people with BPD identify and change core beliefs and/or behaviors that underlie inaccurate perceptions of themselves and
others and problems interacting with others. CBT may help reduce a range of mood and anxiety symptoms and reduce the number of suicidal or self-harming behaviors.

- **Dialectical behavior therapy (DBT).** This type of therapy focuses on the concept of mindfulness, or being aware of and attentive to the current situation. DBT teaches skills to control intense emotions, reduces self-destructive behaviors, and improves relationships. This therapy differs from CBT in that it seeks a balance between changing and accepting beliefs and behaviors.

- **Schema-focused therapy.** This type of therapy combines elements of CBT with other forms of psychotherapy that focus on reframing schemas, or the ways people view themselves. This approach is based on the idea that BPD stems from a dysfunctional self-image—possibly brought on by negative childhood experiences—that affects how people react to their environment, interact with others, and cope with problems or stress.

Therapy can be provided one-on-one between the therapist and the patient or in a group setting. Therapist-led group sessions may help teach people with BPD how to interact with others and how to express themselves effectively.

One type of group therapy, Systems Training for Emotional Predictability and Problem Solving (STEPPS), is designed as a relatively brief treatment consisting of 20 two-hour sessions led by an experienced social worker. Scientists funded by NIMH reported that STEPPS, when used with other types of treatment (medications or individual psychotherapy), can help reduce symptoms and problem behaviors of BPD, relieve symptoms of depression, and improve quality of life. The effectiveness of this type of therapy has not been extensively studied.

Families of people with BPD may also benefit from therapy. The challenges of dealing with an ill relative on a daily basis can be very stressful, and family members may unknowingly act in ways that worsen their relative’s symptoms.

Some therapies, such as DBT-family skills training (DBT-FST), include family members in treatment sessions. These types of programs help families develop skills to better understand and support a relative with BPD. Other therapies, such as Family Connections, focus on the needs of family members. More research is needed to determine the effectiveness of family therapy in BPD. Studies with other mental disorders suggest that including family members can help in a person’s treatment.

Other types of therapy not listed in this booklet may be helpful for some people with BPD. Therapists often adapt psychotherapy to better meet a person’s needs. Therapists may switch from one type of therapy to another, mix techniques from
different therapies, or use a combination therapy. For more information see the NIMH website section on psychotherapy.

Some symptoms of BPD may come and go, but the core symptoms of highly changeable moods, intense anger, and impulsiveness tend to be more persistent. People whose symptoms improve may continue to face issues related to co-occurring disorders, such as depression or post-traumatic stress disorder. However, encouraging research suggests that relapse, or the recurrence of full-blown symptoms after remission, is rare. In one study, 6 percent of people with BPD had a relapse after remission.

MEDICATIONS

No medications have been approved by the U.S. Food and Drug Administration to treat BPD. Only a few studies show that medications are necessary or effective for people with this illness. However, many people with BPD are treated with medications in addition to psychotherapy. While medications do not cure BPD, some medications may be helpful in managing specific symptoms. For some people, medications can help reduce symptoms such as anxiety, depression, or aggression. Often, people are treated with several medications at the same time, but there is little evidence that this practice is necessary or effective.

Medications can cause different side effects in different people. People who have BPD should talk with their prescribing doctor about what to expect from a particular medication.

OTHER TREATMENTS

Omega-3 fatty acids. One study done on 30 women with BPD showed that omega-3 fatty acids may help reduce symptoms of aggression and depression. The treatment seemed to be as well tolerated as commonly prescribed mood stabilizers and had few side effects. Fewer women who took omega-3 fatty acids dropped out of the study, compared to women who took a placebo (sugar pill).

With proper treatment, many people experience fewer or less severe symptoms. However, many factors affect the amount of time it takes for symptoms to improve, so it is important for people with BPD to be patient and to receive appropriate support during treatment.
Some people with BPD experience severe symptoms and require intensive, often inpatient, care. Others may use some outpatient treatments but never need hospitalization or emergency care. Some people who develop this disorder may improve without any treatment.

**HOW CAN I HELP A FRIEND OR RELATIVE WHO HAS BPD?**

If you know someone who has BPD, it affects you too. The first and most important thing you can do is help your friend or relative get the right diagnosis and treatment. You may need to make an appointment and go with your friend or relative to see the doctor. Encourage him or her to stay in treatment or to seek different treatment if symptoms do not appear to improve with the current treatment.

To help a friend or relative you can:

Offer emotional support, understanding, patience, and encouragement—change can be difficult and frightening to people with BPD, but it is possible for them to get better over time

- Learn about mental disorders, including BPD, so you can understand what your friend or relative is experiencing
- With permission from your friend or relative, talk with his or her therapist to learn about therapies that may involve family members, such as DBT-FST.

Never ignore comments about someone's intent or plan to harm himself or herself or someone else. Report such comments to the person's therapist or doctor. In urgent or potentially life-threatening situations, you may need to call the police.

**HOW CAN I HELP MYSELF IF I HAVE BPD?**

Taking that first step to help yourself may be hard. It is important to realize that, although it may take some time, you can get better with treatment.

To help yourself:

- Talk to your doctor about treatment options and stick with treatment
- Try to maintain a stable schedule of meals and sleep times
- Engage in mild activity or exercise to help reduce stress
- Set realistic goals for yourself
- Break up large tasks into small ones, set some priorities, and do what you can, as you can
- Try to spend time with other people and confide in a trusted friend or family member
Clinical Trials

NIMH supports research studies on mental health and disorders. See also: A Participant's Guide to Mental Health Clinical Research.

Participate, refer a patient or learn about results of studies in ClinicalTrials.gov, the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with BPD.
Depression

WHAT IS DEPRESSION?

Everyone occasionally feels blue or sad. But these feelings are usually short-lived and pass within a couple of days. When you have depression, it interferes with daily life and causes pain for both you and those who care about you. Depression is a common but serious illness.

Many people with a depressive illness never seek treatment. But the majority, even those with the most severe depression, can get better with treatment. Medications, psychotherapies, and other methods can effectively treat people with depression.

There are several forms of depressive disorders.

**Major depression**—severe symptoms that interfere with your ability to work, sleep, study, eat, and enjoy life. An episode can occur only once in a person’s lifetime, but more often, a person has several episodes.

**Persistent depressive disorder**—depressed mood that lasts for at least 2 years. A person diagnosed with persistent depressive disorder may have episodes of major depression along with periods of less severe symptoms, but symptoms must last for 2 years.

Some forms of depression are slightly different, or they may develop under unique circumstances. They include:

- **Psychotic depression**, which occurs when a person has severe depression plus some form of psychosis, such as having disturbing false beliefs or a break with reality (delusions), or hearing or seeing upsetting things that others cannot hear or see (hallucinations).

- **Postpartum depression**, which is much more serious than the "baby blues" that many women experience after giving birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be overwhelming. It is estimated that 10 to 15 percent of women experience postpartum depression after giving birth.

- **Seasonal affective disorder (SAD)**, which is characterized by the onset of depression during the winter months, when there is less natural sunlight. The depression generally lifts during spring and summer. SAD may be effectively treated with light therapy, but nearly half of those with SAD do not get better with light therapy alone. Antidepressant medication and
psychotherapy can reduce SAD symptoms, either alone or in combination with light therapy.

**Bipolar disorder,** also called manic-depressive illness, is not as common as major depression or persistent depressive disorder. Bipolar disorder is characterized by cycling mood changes—from extreme highs (e.g., mania) to extreme lows (e.g., depression).

**CAUSES**

Most likely, depression is caused by a combination of genetic, biological, environmental, and psychological factors.

Depressive illnesses are disorders of the brain. Brain-imaging technologies, such as magnetic resonance imaging (MRI), have shown that the brains of people who have depression look different than those of people without depression. The parts of the brain involved in mood, thinking, sleep, appetite, and behavior appear different. But these images do not reveal why the depression has occurred. They also cannot be used to diagnose depression.

Some types of depression tend to run in families. However, depression can occur in people without family histories of depression too. Scientists are studying certain genes that may make some people more prone to depression. Some genetics research indicates that risk for depression results from the influence of several genes acting together with environmental or other factors. In addition, trauma, loss of a loved one, a difficult relationship, or any stressful situation may trigger a depressive episode. Other depressive episodes may occur with or without an obvious trigger.

**SIGNS & SYMPTOMS**

"It was really hard to get out of bed in the morning. I just wanted to hide under the covers and not talk to anyone. I didn’t feel much like eating and I lost a lot of weight. Nothing seemed fun anymore. I was tired all the time, and I wasn’t sleeping well at night. But I knew I had to keep going because I’ve got kids and a job. It just felt so impossible, like nothing was going to change or get better."

People with depressive illnesses do not all experience the same symptoms. The severity, frequency, and duration of symptoms vary depending on the individual and his or her particular illness.

Signs and symptoms include:
Persistent sad, anxious, or "empty" feelings
Feelings of hopelessness or pessimism
Feelings of guilt, worthlessness, or helplessness
Irritability, restlessness
Loss of interest in activities or hobbies once pleasurable, including sex
Fatigue and decreased energy
Difficulty concentrating, remembering details, and making decisions
Insomnia, early-morning wakefulness, or excessive sleeping
Overeating, or appetite loss
Thoughts of suicide, suicide attempts
Aches or pains, headaches, cramps, or digestive problems that do not ease even with treatment.

WHO IS AT RISK?

Major depressive disorder is one of the most common mental disorders in the United States. Each year about 6.7% of U.S. adults experience major depressive disorder. Women are 70% more likely than men to experience depression during their lifetime. Non-Hispanic blacks are 40% less likely than non-Hispanic whites to experience depression during their lifetime. The average age of onset is 32 years old. Additionally, 3.3% of 13 to 18 year olds have experienced a seriously debilitating depressive disorder.

DIAGNOSIS

"I started missing days from work, and a friend noticed that something wasn't right. She talked to me about the time she had been really depressed and had gotten help from her doctor."

Depression, even the most severe cases, can be effectively treated. The earlier that treatment can begin, the more effective it is.

The first step to getting appropriate treatment is to visit a doctor or mental health specialist. Certain medications, and some medical conditions such as viruses or a thyroid disorder, can cause the same symptoms as depression. A doctor can rule out these possibilities by doing a physical exam, interview, and lab tests. If the doctor can find no medical condition that may be causing the depression, the next step is a psychological evaluation.

The doctor may refer you to a mental health professional, who should discuss with you any family history of depression or other mental disorder, and get a complete
history of your symptoms. You should discuss when your symptoms started, how long they have lasted, how severe they are, and whether they have occurred before and if so, how they were treated. The mental health professional may also ask if you are using alcohol or drugs, and if you are thinking about death or suicide.

Other illnesses may come on before depression, cause it, or be a consequence of it. But depression and other illnesses interact differently in different people. In any case, co-occurring illnesses need to be diagnosed and treated.

Anxiety disorders, such as post-traumatic stress disorder (PTSD), obsessive-compulsive disorder, panic disorder, social phobia, and generalized anxiety disorder, often accompany depression. PTSD can occur after a person experiences a terrifying event or ordeal, such as a violent assault, a natural disaster, an accident, terrorism or military combat. People experiencing PTSD are especially prone to having co-existing depression.

Alcohol and other substance abuse or dependence may also co-exist with depression. Research shows that mood disorders and substance abuse commonly occur together.

Depression also may occur with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, and Parkinson's disease. People who have depression along with another medical illness tend to have more severe symptoms of both depression and the medical illness, more difficulty adapting to their medical condition, and more medical costs than those who do not have co-existing depression. Treating the depression can also help improve the outcome of treating the co-occurring illness.

### TREATMENTS

Once diagnosed, a person with depression can be treated in several ways. The most common treatments are medication and psychotherapy.

#### MEDICATION

**Antidepressants** primarily work on brain chemicals called neurotransmitters, especially serotonin and norepinephrine. Other antidepressants work on the neurotransmitter dopamine. Scientists have found that these particular chemicals are involved in regulating mood, but they are unsure of the exact ways that they work. The latest information on medications for treating depression is available on the [U.S. Food and Drug Administration (FDA) website](https://www.fda.gov).
POPULAR NEWER ANTIDEPRESSANTS

Some of the newest and most popular antidepressants are called selective serotonin reuptake inhibitors (SSRIs). Fluoxetine (Prozac), sertraline (Zoloft), escitalopram (Lexapro), paroxetine (Paxil), and citalopram (Celexa) are some of the most commonly prescribed SSRIs for depression. Most are available in generic versions. Serotonin and norepinephrine reuptake inhibitors (SNRIs) are similar to SSRIs and include venlafaxine (Effexor) and duloxetine (Cymbalta).

SSRIs and SNRIs tend to have fewer side effects than older antidepressants, but they sometimes produce headaches, nausea, jitters, or insomnia when people first start to take them. These symptoms tend to fade with time. Some people also experience sexual problems with SSRIs or SNRIs, which may be helped by adjusting the dosage or switching to another medication.

One popular antidepressant that works on dopamine is bupropion (Wellbutrin). Bupropion tends to have similar side effects as SSRIs and SNRIs, but it is less likely to cause sexual side effects. However, it can increase a person's risk for seizures.

TRICYCLICS

Tricyclics are older antidepressants. Tricyclics are powerful, but they are not used as much today because their potential side effects are more serious. They may affect the heart in people with heart conditions. They sometimes cause dizziness, especially in older adults. They also may cause drowsiness, dry mouth, and weight gain. These side effects can usually be corrected by changing the dosage or switching to another medication. However, tricyclics may be especially dangerous if taken in overdose. Tricyclics include imipramine and nortriptyline.

MAOIS

Monoamine oxidase inhibitors (MAOIs) are the oldest class of antidepressant medications. They can be especially effective in cases of "atypical" depression, such as when a person experiences increased appetite and the need for more sleep rather than decreased appetite and sleep. They also may help with anxious feelings or panic and other specific symptoms.

However, people who take MAOIs must avoid certain foods and beverages (including cheese and red wine) that contain a substance called tyramine. Certain medications, including some types of birth control pills, prescription pain relievers, cold and allergy medications, and herbal supplements, also should be avoided while taking an MAOI. These substances can interact with MAOIs to cause dangerous
increases in blood pressure. The development of a new MAOI skin patch may help reduce these risks. If you are taking an MAOI, your doctor should give you a complete list of foods, medicines, and substances to avoid.

MAOIs can also react with SSRIs to produce a serious condition called "serotonin syndrome," which can cause confusion, hallucinations, increased sweating, muscle stiffness, seizures, changes in blood pressure or heart rhythm, and other potentially life-threatening conditions. MAOIs should not be taken with SSRIs.

**HOW SHOULD I TAKE MEDICATION?**

All antidepressants must be taken for at least 4 to 6 weeks before they have a full effect. You should continue to take the medication, even if you are feeling better, to prevent the depression from returning.

Medication should be stopped only under a doctor’s supervision. Some medications need to be gradually stopped to give the body time to adjust. Although antidepressants are not habit-forming or addictive, suddenly ending an antidepressant can cause withdrawal symptoms or lead to a relapse of the depression. Some individuals, such as those with chronic or recurrent depression, may need to stay on the medication indefinitely.

In addition, if one medication does not work, you should consider trying another. NIMH-funded research has shown that people who did not get well after taking a first medication increased their chances of beating the depression after they switched to a different medication or added another medication to their existing one.

Sometimes stimulants, anti-anxiety medications, or other medications are used together with an antidepressant, especially if a person has a co-existing illness. However, neither anti-anxiety medications nor stimulants are effective against depression when taken alone, and both should be taken only under a doctor’s close supervision.

Report any unusual side effects to a doctor immediately.

**FDA WARNING ON ANTIDEPRESSANTS**

Despite the relative safety and popularity of SSRIs and other antidepressants, studies have suggested that they may have unintentional effects on some people, especially adolescents and young adults. In 2004, the Food and Drug Administration (FDA) conducted a thorough review of published and unpublished controlled clinical trials of antidepressants that involved nearly 4,400 children and
adolescents. The review revealed that 4 percent of those taking antidepressants thought about or attempted suicide (although no suicides occurred), compared to 2 percent of those receiving placebos.

This information prompted the FDA, in 2005, to adopt a "black box" warning label on all antidepressant medications to alert the public about the potential increased risk of suicidal thinking or attempts in children and adolescents taking antidepressants. In 2007, the FDA proposed that makers of all antidepressant medications extend the warning to include young adults up through age 24. A "black box" warning is the most serious type of warning on prescription drug labeling.

The warning emphasizes that patients of all ages taking antidepressants should be closely monitored, especially during the initial weeks of treatment. Possible side effects to look for are worsening depression, suicidal thinking or behavior, or any unusual changes in behavior such as sleeplessness, agitation, or withdrawal from normal social situations. The warning adds that families and caregivers should also be told of the need for close monitoring and report any changes to the doctor. The latest information from the FDA can be found on their website.

Results of a comprehensive review of pediatric trials conducted between 1988 and 2006 suggested that the benefits of antidepressant medications likely outweigh their risks to children and adolescents with major depression and anxiety disorders.

WHAT ABOUT ST. JOHN’S WORT?

The extract from the herb St. John’s wort (Hypericum perforatum) has been used for centuries in many folk and herbal remedies. Today in Europe, it is used extensively to treat mild to moderate depression. However, recent studies have found that St. John’s wort is no more effective than placebo in treating major or minor depression.

In 2000, the FDA issued a Public Health Advisory letter stating that the herb may interfere with certain medications used to treat heart disease, depression, seizures, certain cancers, and those used to prevent organ transplant rejection. The herb also may interfere with the effectiveness of oral contraceptives. Consult with your doctor before taking any herbal supplement.

PSYCHOTHERAPY

Now I'm seeing the specialist on a regular basis for "talk therapy," which helps me learn ways to deal with this illness in my everyday life, and I'm taking medicine for depression.
Several types of psychotherapy—or "talk therapy"—can help people with depression.

Two main types of psychotherapies—cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT)—are effective in treating depression. CBT helps people with depression restructure negative thought patterns. Doing so helps people interpret their environment and interactions with others in a positive and realistic way. It may also help you recognize things that may be contributing to the depression and help you change behaviors that may be making the depression worse. IPT helps people understand and work through troubled relationships that may cause their depression or make it worse.

For mild to moderate depression, psychotherapy may be the best option. However, for severe depression or for certain people, psychotherapy may not be enough. For example, for teens, a combination of medication and psychotherapy may be the most effective approach to treating major depression and reducing the chances of it coming back. Another study looking at depression treatment among older adults found that people who responded to initial treatment of medication and IPT were less likely to have recurring depression if they continued their combination treatment for at least 2 years.

More information on psychotherapy is available on the NIMH website.

**ELECTROCONVULSIVE THERAPY AND OTHER BRAIN STIMULATION THERAPIES**

For cases in which medication and/or psychotherapy does not help relieve a person's treatment-resistant depression, electroconvulsive therapy (ECT) may be useful. ECT, formerly known as "shock therapy," once had a bad reputation. But in recent years, it has greatly improved and can provide relief for people with severe depression who have not been able to feel better with other treatments.

Before ECT begins, a patient is put under brief anesthesia and given a muscle relaxant. He or she sleeps through the treatment and does not consciously feel the electrical impulses. Within 1 hour after the treatment session, which takes only a few minutes, the patient is awake and alert.

A person typically will undergo ECT several times a week, and often will need to take an antidepressant or other medication along with the ECT treatments. Although some people will need only a few courses of ECT, others may need maintenance ECT—usually once a week at first, then gradually decreasing to monthly treatments.
Ongoing NIMH-supported ECT research is aimed at developing personalized maintenance ECT schedules.

ECT may cause some side effects, including confusion, disorientation, and memory loss. Usually these side effects are short-term, but sometimes they can linger. Newer methods of administering the treatment have reduced the memory loss and other cognitive difficulties associated with ECT. Research has found that after 1 year of ECT treatments, most patients showed no adverse cognitive effects.

Other more recently introduced types of brain stimulation therapies used to treat severe depression include vagus nerve stimulation (VNS), and repetitive transcranial magnetic stimulation (rTMS). These methods are not yet commonly used, but research has suggested that they show promise.

More information on ECT, VNS, rTMS and other brain stimulation therapies is available on the NIMH website.

LIVING WITH

HOW DO WOMEN EXPERIENCE DEPRESSION?

Depression is more common among women than among men. Biological, life cycle, hormonal, and psychosocial factors that women experience may be linked to women’s higher depression rate. Researchers have shown that hormones directly affect the brain chemistry that controls emotions and mood. For example, women are especially vulnerable to developing postpartum depression after giving birth, when hormonal and physical changes and the new responsibility of caring for a newborn can be overwhelming.

Some women may also have a severe form of premenstrual syndrome (PMS) called premenstrual dysphoric disorder (PMDD). PMDD is associated with the hormonal changes that typically occur around ovulation and before menstruation begins.

During the transition into menopause, some women experience an increased risk for depression. In addition, osteoporosis—bone thinning or loss—may be associated with depression. Scientists are exploring all of these potential connections and how the cyclical rise and fall of estrogen and other hormones may affect a woman’s brain chemistry.

Finally, many women face the additional stresses of work and home responsibilities, caring for children and aging parents, abuse, poverty, and relationship strains. It is still unclear, though, why some women faced with enormous challenges develop depression, while others with similar challenges do not.
HOW DO MEN EXPERIENCE DEPRESSION?

Men often experience depression differently than women. While women with depression are more likely to have feelings of sadness, worthlessness, and excessive guilt, men are more likely to be very tired, irritable, lose interest in once-pleasurable activities, and have difficulty sleeping.

Men may be more likely than women to turn to alcohol or drugs when they are depressed. They also may become frustrated, discouraged, irritable, angry, and sometimes abusive. Some men throw themselves into their work to avoid talking about their depression with family or friends, or behave recklessly. And although more women attempt suicide, many more men die by suicide in the United States.

HOW DO OLDER ADULTS EXPERIENCE DEPRESSION?

Depression is not a normal part of aging. Studies show that most seniors feel satisfied with their lives, despite having more illnesses or physical problems. However, when older adults do have depression, it may be overlooked because seniors may show different, less obvious symptoms. They may be less likely to experience or admit to feelings of sadness or grief.

Sometimes it can be difficult to distinguish grief from major depression. Grief after loss of a loved one is a normal reaction to the loss and generally does not require professional mental health treatment. However, grief that is complicated and lasts for a very long time following a loss may require treatment. Researchers continue to study the relationship between complicated grief and major depression.

Older adults also may have more medical conditions such as heart disease, stroke, or cancer, which may cause depressive symptoms. Or they may be taking medications with side effects that contribute to depression. Some older adults may experience what doctors call vascular depression, also called arteriosclerotic depression or subcortical ischemic depression. Vascular depression may result when blood vessels become less flexible and harden over time, becoming constricted. Such hardening of vessels prevents normal blood flow to the body’s organs, including the brain. Those with vascular depression may have, or be at risk for, co-existing heart disease or stroke.

Although many people assume that the highest rates of suicide are among young people, older white males age 85 and older actually have the highest suicide rate in the United States. Many have a depressive illness that their doctors are not aware of, even though many of these suicide victims visit their doctors within 1 month of their deaths.
Most older adults with depression improve when they receive treatment with an antidepressant, psychotherapy, or a combination of both. Research has shown that medication alone and combination treatment are both effective in reducing depression in older adults. Psychotherapy alone also can be effective in helping older adults stay free of depression, especially among those with minor depression. Psychotherapy is particularly useful for those who are unable or unwilling to take antidepressant medication.

**HOW DO CHILDREN AND TEENS EXPERIENCE DEPRESSION?**

Children who develop depression often continue to have episodes as they enter adulthood. Children who have depression also are more likely to have other more severe illnesses in adulthood.

A child with depression may pretend to be sick, refuse to go to school, cling to a parent, or worry that a parent may die. Older children may sulk, get into trouble at school, be negative and irritable, and feel misunderstood. Because these signs may be viewed as normal mood swings typical of children as they move through developmental stages, it may be difficult to accurately diagnose a young person with depression.

Before puberty, boys and girls are equally likely to develop depression. By age 15, however, girls are twice as likely as boys to have had a major depressive episode.

Depression during the teen years comes at a time of great personal change—when boys and girls are forming an identity apart from their parents, grappling with gender issues and emerging sexuality, and making independent decisions for the first time in their lives. Depression in adolescence frequently co-occurs with other disorders such as anxiety, eating disorders, or substance abuse. It can also lead to increased risk for suicide.

An NIMH-funded clinical trial of 439 adolescents with major depression found that a combination of medication and psychotherapy was the most effective treatment option. Other NIMH-funded researchers are developing and testing ways to prevent suicide in children and adolescents.

Childhood depression often persists, recurs, and continues into adulthood, especially if left untreated.

**HOW CAN I HELP A LOVED ONE WHO IS DEPRESSED?**

If you know someone who is depressed, it affects you too. The most important thing you can do is help your friend or relative get a diagnosis and treatment. You may
need to make an appointment and go with him or her to see the doctor. Encourage your loved one to stay in treatment, or to seek different treatment if no improvement occurs after 6 to 8 weeks.

To help your friend or relative

- Offer emotional support, understanding, patience, and encouragement.
- Talk to him or her, and listen carefully.
- Never dismiss feelings, but point out realities and offer hope.
- Never ignore comments about suicide, and report them to your loved one’s therapist or doctor.
- Invite your loved one out for walks, outings and other activities. Keep trying if he or she declines, but don’t push him or her to take on too much too soon.
- Provide assistance in getting to the doctor’s appointments.
- Remind your loved one that with time and treatment, the depression will lift.

HOW CAN I HELP MYSELF IF I AM DEPRESSED?

If you have depression, you may feel exhausted, helpless, and hopeless. It may be extremely difficult to take any action to help yourself. But as you begin to recognize your depression and begin treatment, you will start to feel better.

To Help Yourself

- Do not wait too long to get evaluated or treated. There is research showing the longer one waits, the greater the impairment can be down the road. Try to see a professional as soon as possible.
- Try to be active and exercise. Go to a movie, a ballgame, or another event or activity that you once enjoyed.
- Set realistic goals for yourself.
- Break up large tasks into small ones, set some priorities and do what you can as you can.
- Try to spend time with other people and confide in a trusted friend or relative. Try not to isolate yourself, and let others help you.
- Expect your mood to improve gradually, not immediately. Do not expect to suddenly "snap out of" your depression. Often during treatment for depression, sleep and appetite will begin to improve before your depressed mood lifts.
- Postpone important decisions, such as getting married or divorced or changing jobs, until you feel better. Discuss decisions with others who know you well and have a more objective view of your situation.
• Remember that positive thinking will replace negative thoughts as your depression responds to treatment.
• Continue to educate yourself about depression.

CLINICAL TRIALS

NIMH supports research studies on mental health and disorders. See also: A Participant's Guide to Mental Health Clinical Research.

Participate, refer a patient or learn about results of studies in ClinicalTrials.gov, the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with depression.
Eating Disorders

WHAT ARE EATING DISORDERS?

There is a commonly held view that eating disorders are a lifestyle choice. Eating disorders are actually serious and often fatal illnesses that cause severe disturbances to a person’s eating behaviors. Obsessions with food, body weight, and shape may also signal an eating disorder. Common eating disorders include anorexia nervosa, bulimia nervosa, and binge-eating disorder.

SIGNS AND SYMPTOMS

ANOREXIA NERVOSA

People with anorexia nervosa may see themselves as overweight, even when they are dangerously underweight. People with anorexia nervosa typically weigh themselves repeatedly, severely restrict the amount of food they eat, and eat very small quantities of only certain foods. Anorexia nervosa has the highest mortality rate of any mental disorder. While many young women and men with this disorder die from complications associated with starvation, others die of suicide. In women, suicide is much more common in those with anorexia than with most other mental disorders.

Symptoms include:

- Extremely restricted eating
- Extreme thinness (emaciation)
- A relentless pursuit of thinness and unwillingness to maintain a normal or healthy weight
- Intense fear of gaining weight
- Distorted body image, a self-esteem that is heavily influenced by perceptions of body weight and shape, or a denial of the seriousness of low body weight

Other symptoms may develop over time, including:

- Thinning of the bones (osteopenia or osteoporosis)
- Mild anemia and muscle wasting and weakness
- Brittle hair and nails
- Dry and yellowish skin
- Growth of fine hair all over the body (lanugo)
- Severe constipation
The National Institute of Mental Health
Guide to Eating Disorders

- Low blood pressure, slowed breathing and pulse
- Damage to the structure and function of the heart
- Brain damage
- Multiorgan failure
- Drop in internal body temperature, causing a person to feel cold all the time
- Lethargy, sluggishness, or feeling tired all the time
- Infertility

BULIMIA NERVOSA

People with bulimia nervosa have recurrent and frequent episodes of eating unusually large amounts of food and feeling a lack of control over these episodes. This binge-eating is followed by behavior that compensates for the overeating such as forced vomiting, excessive use of laxatives or diuretics, fasting, excessive exercise, or a combination of these behaviors. Unlike anorexia nervosa, people with bulimia nervosa usually maintain what is considered a healthy or relatively normal weight.

Symptoms include:

- Chronically inflamed and sore throat
- Swollen salivary glands in the neck and jaw area
- Worn tooth enamel and increasingly sensitive and decaying teeth as a result of exposure to stomach acid
- Acid reflux disorder and other gastrointestinal problems
- Intestinal distress and irritation from laxative abuse
- Severe dehydration from purging of fluids
- Electrolyte imbalance (too low or too high levels of sodium, calcium, potassium and other minerals) which can lead to stroke or heart attack

BINGE-EATING DISORDER

People with binge-eating disorder lose control over his or her eating. Unlike bulimia nervosa, periods of binge-eating are not followed by purging, excessive exercise, or fasting. As a result, people with binge-eating disorder often are overweight or obese. Binge-eating disorder is the most common eating disorder in the U.S.

Symptoms include:

- Eating unusually large amounts of food in a specific amount of time
- Eating even when you’re full or not hungry
- Eating fast during binge episodes
- Eating until you’re uncomfortably full
The National Institute of Mental Health
Guide to Eating Disorders

- Eating alone or in secret to avoid embarrassment
- Feeling distressed, ashamed, or guilty about your eating
- Frequently dieting, possibly without weight loss

RISK FACTORS

Eating disorders frequently appear during the teen years or young adulthood but may also develop during childhood or later in life. These disorders affect both genders, although rates among women are 2½ times greater than among men. Like women who have eating disorders, men also have a distorted sense of body image. For example, men may have muscle dysmorphia, a type of disorder marked by an extreme concern with becoming more muscular.

Researchers are finding that eating disorders are caused by a complex interaction of genetic, biological, behavioral, psychological, and social factors. Researchers are using the latest technology and science to better understand eating disorders.

One approach involves the study of human genes. Eating disorders run in families. Researchers are working to identify DNA variations that are linked to the increased risk of developing eating disorders.

Brain imaging studies are also providing a better understanding of eating disorders. For example, researchers have found differences in patterns of brain activity in women with eating disorders in comparison with healthy women. This kind of research can help guide the development of new means of diagnosis and treatment of eating disorders.

TREATMENTS AND THERAPIES

Adequate nutrition, reducing excessive exercise, and stopping purging behaviors are the foundations of treatment. Treatment plans are tailored to individual needs and may include one or more of the following:

- Individual, group, and/or family psychotherapy
- Medical care and monitoring
- Nutritional counseling
- Medications

PSYCHOTHERAPIES

Psychotherapies such as a family-based therapy called the Maudsley approach, where parents of adolescents with anorexia nervosa assume responsibility for
feeding their child, appear to be very effective in helping people gain weight and improve eating habits and moods.

To reduce or eliminate binge-eating and purging behaviors, people may undergo cognitive behavioral therapy (CBT), which is another type of psychotherapy that helps a person learn how to identify distorted or unhelpful thinking patterns and recognize and change inaccurate beliefs.

**MEDICATIONS**

Evidence also suggests that medications such as antidepressants, antipsychotics, or mood stabilizers approved by the U.S. Food and Drug Administration (FDA) may also be helpful for treating eating disorders and other co-occurring illnesses such as anxiety or depression. Check the FDA’s website: (http://www.fda.gov/), for the latest information on warnings, patient medication guides, or newly approved medications.

**JOIN A STUDY**

Clinical trials are research studies that look at new ways to prevent, detect, or treat diseases and conditions, including eating disorders. During clinical trials, treatments might be new drugs or new combinations of drugs, new surgical procedures or devices, or new ways to use existing treatments. The goal of clinical trials is to determine if a new test or treatment works and is safe. Although individual participants may benefit from being part of a clinical trial, participants should be aware that the primary purpose of a clinical trial is to gain new scientific knowledge so that others may be better helped in the future.

**Please note:** If you suspect that you have an eating disorder, clinical trials should not be used as a substitute for treatment with your licensed health professional.

**CLINICAL TRIALS AT NIMH/NIH**

Scientists at the NIMH campus conduct research on numerous areas of study, including cognition, genetics, epidemiology, and psychiatry. The studies take place at the NIH Clinical Center in Bethesda, Maryland and require regular visits. After the initial phone interview, you will come to an appointment at the clinic and meet with a clinician. Visit the NIMH Clinical Trials — Participants or Join a Study pages for more information.

**HOW DO I FIND A CLINICAL TRIAL NEAR ME?**
To find a clinical trial near you, you can visit ClinicalTrials.gov. This is a searchable registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a trial's purpose, who may participate, locations, and phone numbers for more details. This information should be used in conjunction with advice from health professionals.

LEARN MORE

FREE BOOKLETS AND BROCHURES

- **Eating Disorders: About More Than Food**: A brochure about the common eating disorders anorexia nervosa, bulimia nervosa, and binge-eating disorder, and various approaches to treatment. [Order a free copy](#).

MULTIMEDIA

- **Watch: Eating Disorders Myths Busted** – A video series by NIMH: Cynthia Bulik, Ph.D., a NIMH grantee at the University of North Carolina, debunks nine myths about eating disorders
- **NIMH Twitter Chat on Eating Disorders**
- **NIMH Twitter Chat on Binge-Eating Disorder**

RESEARCH AND STATISTICS

- **NIMH Eating Disorders Research Program**: This program supports research on the etiology, core features, longitudinal course, and assessment of eating disorders.
- **Eating Disorders Clinical Trials**: A listing of clinical trials on eating disorders at the National Institutes of Health and across the country.
- **Journal Articles**: References and abstracts from MEDLINE/PubMed (National Library of Medicine).
- **Statistics: Eating Disorders Among Adults Anorexia Nervosa**
- **Statistics: Eating Disorders Among Adults – Bulimia Nervosa**
- **Statistics: Eating Disorders Among Adults – Binge-Eating Disorder**
- **Statistics: Eating Disorders Among Children**
Generalized Anxiety Disorder (GAD)

WHAT IS GENERALIZED ANXIETY DISORDER?

“I always thought I was just a worrier. I’d feel keyed up and unable to relax. At times it would come and go, and at times it would be constant. It could go on for days. I’d worry about what I was going to fix for a dinner party, or what would be a great present for somebody. I just couldn’t let something go.”

“I’d have terrible sleeping problems. There were times I’d wake up wired in the middle of the night. I had trouble concentrating, even reading the newspaper or a novel. Sometimes I’d feel a little lightheaded. My heart would race or pound. And that would make me worry more. I was always imagining things were worse than they really were. When I got a stomachache, I’d think it was an ulcer.”

“I was worried all the time about everything. It didn’t matter that there were no signs of problems, I just got upset. I was having trouble falling asleep at night, and I couldn’t keep my mind focused at work. I felt angry at my family all the time.”

All of us worry about things like health, money, or family problems. But people with generalized anxiety disorder (GAD) are extremely worried about these and many other things, even when there is little or no reason to worry about them. They are very anxious about just getting through the day. They think things will always go badly. At times, worrying keeps people with GAD from doing everyday tasks.

CAUSES

GAD sometimes runs in families, but no one knows for sure why some people have it while others don’t. Researchers have found that several parts of the brain are involved in fear and anxiety. By learning more about fear and anxiety in the brain, scientists may be able to create better treatments. Researchers are also looking for ways in which stress and environmental factors may play a role.

SIGNS & SYMPTOMS

People with GAD can’t seem to get rid of their concerns, even though they usually realize that their anxiety is more intense than the situation warrants. They can’t relax, startle easily, and have difficulty concentrating. Often they have trouble falling asleep or staying asleep. Physical symptoms that often accompany the anxiety include fatigue, headaches, muscle tension, muscle aches, difficulty swallowing,
trembling, twitching, irritability, sweating, nausea, lightheadedness, having to go to the bathroom frequently, feeling out of breath, and hot flashes.

GAD develops slowly. It often starts during the teen years or young adulthood. Symptoms may get better or worse at different times, and often are worse during times of stress.

When their anxiety level is mild, people with GAD can function socially and hold down a job. Although they don't avoid certain situations as a result of their disorder, people with GAD can have difficulty carrying out the simplest daily activities if their anxiety is severe.

**WHO IS AT RISK?**

Generalized anxiety disorders affect about 3.1% American adults age 18 years and older (about 18%) in a given year, causing them to be filled with fearfulness and uncertainty. The average age of onset is 31 years old.

GAD affects about 6.8 million American adults, including twice as many women as men. The disorder develops gradually and can begin at any point in the life cycle, although the years of highest risk are between childhood and middle age.

**DIAGNOSIS**

GAD is diagnosed when a person worries excessively about a variety of everyday problems for at least 6 months.

People with GAD may visit a doctor many times before they find out they have this disorder. They ask their doctors to help them with headaches or trouble falling asleep, which can be symptoms of GAD but they don't always get the help they need right away. It may take doctors some time to be sure that a person has GAD instead of something else.

First, talk to your doctor about your symptoms. Your doctor should do an exam to make sure that another physical problem isn't causing the symptoms. The doctor may refer you to a mental health specialist.

**TREATMENTS**

GAD is generally treated with psychotherapy, medication, or both.

**Psychotherapy.** A type of psychotherapy called cognitive behavior therapy is especially useful for treating GAD. It teaches a person different ways of thinking,
behaving, and reacting to situations that help him or her feel less anxious and worried.

**Medication.** Doctors also may prescribe medication to help treat GAD. Two types of medications are commonly used to treat GAD—anti-anxiety medications and antidepressants. Anti-anxiety medications are powerful and there are different types. Many types begin working right away, but they generally should not be taken for long periods.

Antidepressants are used to treat depression, but they also are helpful for GAD. They may take several weeks to start working. These medications may cause side effects such as headache, nausea, or difficulty sleeping. These side effects are usually not a problem for most people, especially if the dose starts off low and is increased slowly over time. **Talk to your doctor about any side effects you may have.**

It's important to know that although antidepressants can be safe and effective for many people, they may be risky for some, especially children, teens, and young adults. A "black box"—the most serious type of warning that a prescription drug can have—has been added to the labels of antidepressant medications. These labels warn people that antidepressants may cause some people to have suicidal thoughts or make suicide attempts. Anyone taking antidepressants should be monitored closely, especially when they first start treatment with medications.

Some people do better with cognitive behavior therapy, while others do better with medication. Still others do best with a combination of the two. Talk with your doctor about the best treatment for you.

**LIVING WITH**

If you think you have an anxiety disorder, the first person you should see is your family doctor. A physician can determine whether the symptoms that alarm you are due to an anxiety disorder, another medical condition, or both.

If an anxiety disorder is diagnosed, the next step is usually seeing a mental health professional. The practitioners who are most helpful with anxiety disorders are those who have training in cognitive-behavioral therapy and/or behavioral therapy, and who are open to using medication if it is needed.

You should feel comfortable talking with the mental health professional you choose. If you do not, you should seek help elsewhere. Once you find a mental health professional with whom you are comfortable, the two of you should work as a team and make a plan to treat your anxiety disorder together.
Remember that once you start on medication, it is important not to stop taking it abruptly. Certain drugs must be tapered off under the supervision of a doctor or bad reactions can occur. Make sure you talk to the doctor who prescribed your medication before you stop taking it. If you are having trouble with side effects, it’s possible that they can be eliminated by adjusting how much medication you take and when you take it.

Most insurance plans, including health maintenance organizations (HMOs), will cover treatment for anxiety disorders. Check with your insurance company and find out. If you don’t have insurance, the Health and Human Services division of your county government may offer mental health care at a public mental health center that charges people according to how much they are able to pay. If you are on public assistance, you may be able to get care through your state Medicaid plan.

WAYS TO MAKE TREATMENT MORE EFFECTIVE

Many people with anxiety disorders benefit from joining a self-help or support group and sharing their problems and achievements with others. Internet chat rooms can also be useful in this regard, but any advice received over the Internet should be used with caution, as Internet acquaintances have usually never seen each other and false identities are common. Talking with a trusted friend or member of the clergy can also provide support, but it is not a substitute for care from a mental health professional.

Stress management techniques and meditation can help people with anxiety disorders calm themselves and may enhance the effects of therapy. There is preliminary evidence that aerobic exercise may have a calming effect. Since caffeine, certain illicit drugs, and even some over-the-counter cold medications can aggravate the symptoms of anxiety disorders, they should be avoided. Check with your physician or pharmacist before taking any additional medications.

The family is very important in the recovery of a person with an anxiety disorder. Ideally, the family should be supportive but not help perpetuate their loved one’s symptoms. Family members should not trivialize the disorder or demand improvement without treatment.

CLINICAL TRIALS

NIMH supports research studies on mental health and disorders. See also: A Participant’s Guide to Mental Health Clinical Research.
Participate, refer a patient or learn about results of studies in ClinicalTrials.gov, the NIH/National Library of Medicine's registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with generalized anxiety disorder.
Obsessive-Compulsive Disorder

DEFINITION

Obsessive-Compulsive Disorder (OCD) is a common, chronic and long-lasting disorder in which a person has uncontrollable, reoccurring thoughts (obsessions) and behaviors (compulsions) that he or she feels the urge to repeat over and over.

SIGNS AND SYMPTOMS

People with OCD may have symptoms of obsessions, compulsions, or both. These symptoms can interfere with all aspects of life, such as work, school, and personal relationships.

Obsessions are repeated thoughts, urges, or mental images that cause anxiety. Common symptoms include:

- Fear of germs or contamination
- Unwanted forbidden or taboo thoughts involving sex, religion, and harm
- Aggressive thoughts towards others or self
- Having things symmetrical or in a perfect order

Compulsions are repetitive behaviors that a person with OCD feels the urge to do in response to an obsessive thought. Common compulsions include:

- Excessive cleaning and/or handwashing
- Ordering and arranging things in a particular, precise way
- Repeatedly checking on things, such as repeatedly checking to see if the door is locked or that the oven is off
- Compulsive counting

Not all rituals or habits are compulsions. Everyone double checks things sometimes. But a person with OCD generally:

- Can't control his or her thoughts or behaviors, even when those thoughts or behaviors are recognized as excessive
- Spends at least 1 hour a day on these thoughts of behaviors
- Doesn’t get pleasure when performing the behaviors or rituals, but may feel brief relief from the anxiety the thoughts cause
- Experiences significant problems in their daily life due to these thoughts or behaviors
Some individuals with OCD also have a tic disorder. Motor tics are sudden, brief, repetitive movements, such as eye blinking and other eye movements, facial grimacing, shoulder shrugging, and head or shoulder jerking. Common vocal tics include repetitive throat-clearing, sniffing, or grunting sounds.

Symptoms may come and go, ease over time, or worsen. People with OCD may try to help themselves by avoiding situations that trigger their obsessions, or they may use alcohol or drugs to calm themselves. Although most adults with OCD recognize that what they are doing doesn’t make sense, some adults and most children may not realize that their behavior is out of the ordinary. Parents or teachers typically recognize OCD symptoms in children.

If you think you have OCD, talk to your doctor about your symptoms. If left untreated, OCD can interfere in all aspects of life.

**Note for Health Care Providers:** There are comprehensive and validated screening instruments for quantifying and tracking signs and symptoms of OCD. One example is the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), which you can find on the [Anxiety and Depression Association of America (ADAA)* website](http://www.ocdscales.org/). Another example is the Florida Obsessive-Compulsive Inventory, which is available online at [http://www.ocdscales.org/](http://www.ocdscales.org/).

This listing is not comprehensive and does not constitute an endorsement by NIMH.

*ADAA is an [NIMH National Partner](http://www.nimh.nih.gov/).*

**RISK FACTORS**

OCD is a common disorder that affects adults, adolescents, and children all over the world. Most people are diagnosed by about age 19, typically with an earlier age of onset in boys than in girls, but onset after age 35 does happen. For statistics on OCD in adults, please see the [NIMH Obsessive Compulsive Disorder Among Adults](http://www.nimh.nih.gov/health/topics/obsessive-compulsive-disorder-ocd/index.shtml) webpage.

The causes of OCD are unknown, but risk factors include:

**GENETICS**

Twin and family studies have shown that people with first-degree relatives (such as a parent, sibling, or child) who have OCD are at a higher risk for developing OCD themselves. The risk is higher if the first-degree relative developed OCD as a child or teen. Ongoing research continues to explore the connection between genetics and OCD and may help improve OCD diagnosis and treatment.
BRAIN STRUCTURE AND FUNCTIONING

Imaging studies have shown differences in the frontal cortex and subcortical structures of the brain in patients with OCD. There appears to be a connection between the OCD symptoms and abnormalities in certain areas of the brain, but that connection is not clear. Research is still underway. Understanding the causes will help determine specific, personalized treatments to treat OCD.

ENVIRONMENT

People who have experienced abuse (physical or sexual) in childhood or other trauma are at an increased risk for developing OCD.

In some cases, children may develop OCD or OCD symptoms following a streptococcal infection—this is called Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infections (PANDAS). For more information, please read this fact sheet on PANDAS.

TREATMENTS AND THERAPIES

OCD is typically treated with medication, psychotherapy or a combination of the two. Although most patients with OCD respond to treatment, some patients continue to experience symptoms.

Sometimes people with OCD also have other mental disorders, such as anxiety, depression, and body dysmorphic disorder, a disorder in which someone mistakenly believes that a part of their body is abnormal. It is important to consider these other disorders when making decisions about treatment.

MEDICATION

Serotonin reuptake inhibitors (SRIs) and selective serotonin reuptake inhibitors (SSRIs) are used to help reduce OCD symptoms. Examples of medications that have been proven effective in both adults and children with OCD include clomipramine, which is a member of an older class of “tricyclic” antidepressants, and several newer “selective serotonin reuptake inhibitors” (SSRIs), including:

- fluoxetine
- fluvoxamine
- sertraline
SRIs often require higher daily doses in the treatment of OCD than of depression, and may take 8 to 12 weeks to start working, but some patients experience more rapid improvement.

If symptoms do not improve with these types of medications, research shows that some patients may respond well to an antipsychotic medication (such as risperidone). Although research shows that an antipsychotic medication may be helpful in managing symptoms for people who have both OCD and a tic disorder, research on the effectiveness of antipsychotics to treat OCD is mixed.

If you are prescribed a medication, be sure you:

- Talk with your doctor or a pharmacist to make sure you understand the risks and benefits of the medications you’re taking.
- Do not stop taking a medication without talking to your doctor first. Suddenly stopping a medication may lead to "rebound" or worsening of OCD symptoms. Other uncomfortable or potentially dangerous withdrawal effects are also possible.
- Report any concerns about side effects to your doctor right away. You may need a change in the dose or a different medication.
- Report serious side effects to the U.S. Food and Drug Administration (FDA) MedWatch Adverse Event Reporting program online at http://www.fda.gov/Safety/MedWatch or by phone at 1-800-332-1088. You or your doctor may send a report.

Other medications have been used to treat OCD, but more research is needed to show the benefit for these options. For basic information about these medications, you can visit the National Institute of Mental Health (NIMH) Mental Health Medications webpage. For the most up-to-date information on medications, side effects, and warnings, visit the FDA website.

**PSYCHOTHERAPY**

Psychotherapy can be an effective treatment for adults and children with OCD. Research shows that certain types of psychotherapy, including cognitive behavior therapy (CBT) and other related therapies (e.g., habit reversal training) can be as effective as medication for many individuals. Research also shows that a type of CBT called Exposure and Response Prevention (EX/RP) is effective in reducing compulsive behaviors in OCD, even in people who did not respond well to SRI medication. For many patients EX/RP is the add-on treatment of choice when SRIs or SSRIs medication does not effectively treat OCD symptoms.
OTHER TREATMENT OPTIONS

NIMH is supporting research into new treatment approaches for people whose OCD does not respond well to the usual therapies. These new approaches include combination and add-on (augmentation) treatments, as well as novel techniques such as deep brain stimulation (DBS). You can learn more about brain stimulation therapies on the NIMH website.

FINDING TREATMENT

For general information on mental health and to locate treatment services in your area, call the Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Referral Helpline at 1-800-662-HELP (4357). SAMHSA also has a Behavioral Health Treatment Locator on its website that can be searched by location. You can also visit the NIMH’s Help for Mental Illnesses page for more information and resources.

JOIN A STUDY

Clinical trials are research studies that look at new ways to prevent, detect, or treat diseases and conditions, including OCD. During clinical trials, investigated treatments might be new drugs or new combinations of drugs, new surgical procedures or devices, or new ways to use existing treatments. The goal of clinical trials is to determine if a new test or treatment works and is safe. Although individual participants may benefit from being part of a clinical trial, participants should be aware that the primary purpose of a clinical trial is to gain new scientific knowledge so that others may be better helped in the future.

Please Note: Decisions about whether to participate in a clinical trial, and which ones are best suited for a given individual, are best made in collaboration with your licensed health professional.

CLINICAL TRIALS AT NIMH/NIH

Scientists at the NIMH campus conduct research on numerous areas of study, including cognition, genetics, epidemiology, brain imaging, and treatment development. The studies take place at the NIH Clinical Center in Bethesda, Maryland and require regular visits. After the initial phone interview, you will come to an appointment at the clinic and meet with a clinician. For more information, visit NIMH Clinical Trials — Participants or Join a Study.
HOW DO I FIND A CLINICAL TRIAL NEAR ME?

To find a clinical trial near you, visit ClinicalTrials.gov. This is a searchable registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a trial’s purpose, who may participate, locations, and phone numbers for more details. This information should be used in conjunction with advice from health professionals.

For more information about participating in clinical trials, visit NIH Clinical Trials and You.

Learn More

Free Booklets and Brochures

- **Obsessive-Compulsive Disorder: When Unwanted Thoughts Take Over**: A brochure that offers basic information about OCD, including signs and symptoms, treatment, and finding help. Also available en Español.

Online Resources

- **Medicines for Treating Mental Health Conditions: A Review of the Research for Adults and Caregivers**: This Agency for Healthcare Research and Quality summary tells you about research on how well some antipsychotic medicines work for conditions other than psychosis and bipolar disorder. It also discusses research on the risks of side effects for these medicines.

- **PANDAS**: This online fact sheet provides information about PANDAS. A child may be diagnosed with PANDAS when OCD symptoms and/or tic disorders suddenly appear or worsen after a streptococcal (strep) infection (such as strep throat or scarlet fever).

Research and Clinical Trials

- **OCD Clinical Trials**: This webpage lists clinical trials on OCD at the National Institutes of Health and across the country.

- **OCD Statistics: Adults**: This webpage lists information on trends in prevalence of and use of treatments/services by adults with OCD.
Panic Disorder

CAUSES

Panic disorder sometimes runs in families, but no one knows for sure why some people have it while others don’t. Researchers have found that several parts of the brain are involved in fear and anxiety. By learning more about fear and anxiety in the brain, scientists may be able to create better treatments. Researchers are also looking for ways in which stress and environmental factors may play a role.

SIGNS & SYMPTOMS

People with panic disorder may have:

- Sudden and repeated attacks of fear
- A feeling of being out of control during a panic attack
- An intense worry about when the next attack will happen
- A fear or avoidance of places where panic attacks have occurred in the past
- Physical symptoms during an attack, such as a pounding or racing heart, sweating, breathing problems, weakness or dizziness, feeling hot or a cold chill, tingly or numb hands, chest pain, or stomach pain.

WHO IS AT RISK?

Panic disorder affects about 6 million American adults and is twice as common in women as men. Panic attacks often begin in late adolescence or early adulthood, but not everyone who experiences panic attacks will develop panic disorder. Many people have just one attack and never have another. The tendency to develop panic attacks appears to be inherited.

DIAGNOSIS

Panic attacks can occur at any time, even during sleep. An attack usually peaks within 10 minutes, but some symptoms may last much longer.

People who have full-blown, repeated panic attacks can become very disabled by their condition and should seek treatment before they start to avoid places or situations where panic attacks have occurred. For example, if a panic attack happened in an elevator, someone with panic disorder may develop a fear of elevators that could affect the choice of a job or an apartment, and restrict where that person can seek medical attention or enjoy entertainment.
Some people’s lives become so restricted that they avoid normal activities, such as grocery shopping or driving. About one-third become housebound or are able to confront a feared situation only when accompanied by a spouse or other trusted person. When the condition progresses this far, it is called agoraphobia, or fear of open spaces.

Early treatment can often prevent agoraphobia, but people with panic disorder may sometimes go from doctor to doctor for years and visit the emergency room repeatedly before someone correctly diagnoses their condition. This is unfortunate, because panic disorder is one of the most treatable of all the anxiety disorders, responding in most cases to certain kinds of medication or certain kinds of cognitive psychotherapy, which help change thinking patterns that lead to fear and anxiety.

Panic disorder is often accompanied by other serious problems, such as depression, drug abuse, or alcoholism. These conditions need to be treated separately. Symptoms of depression include feelings of sadness or hopelessness, changes in appetite or sleep patterns, low energy, and difficulty concentrating. Most people with depression can be effectively treated with antidepressant medications, certain types of psychotherapy, or a combination of the two.

First, talk to your doctor about your symptoms. Your doctor should do an exam to make sure that another physical problem isn’t causing the symptoms. The doctor may refer you to a mental health specialist.

**TREATMENTS**

Panic disorder is generally treated with psychotherapy, medication, or both.

**Psychotherapy.** A type of psychotherapy called cognitive behavior therapy is especially useful for treating panic disorder. It teaches a person different ways of thinking, behaving, and reacting to situations that help him or her feel less anxious and fearful.

**Medication.** Doctors also may prescribe medication to help treat panic disorder. The most commonly prescribed medications for panic disorder are anti-anxiety medications and antidepressants. Anti-anxiety medications are powerful and there are different types. Many types begin working right away, but they generally should not be taken for long periods.

Antidepressants are used to treat depression, but they also are helpful for panic disorder. They may take several weeks to start working. Some of these medications may cause side effects such as headache, nausea, or difficulty sleeping. These side
effects are usually not a problem for most people, especially if the dose starts off low and is increased slowly over time. **Talk to your doctor about any side effects you may have.**

It's important to know that although antidepressants can be safe and effective for many people, they may be risky for some, especially children, teens, and young adults. A "black box"—the most serious type of warning that a prescription drug can have—has been added to the labels of antidepressant medications. These labels warn people that antidepressants may cause some people to have suicidal thoughts or make suicide attempts. Anyone taking antidepressants should be monitored closely, especially when they first start treatment with medications.

Another type of medication called beta-blockers can help control some of the physical symptoms of panic disorder such as excessive sweating, a pounding heart, or dizziness. Although beta blockers are not commonly prescribed, they may be helpful in certain situations that bring on a panic attack.

Some people do better with cognitive behavior therapy, while others do better with medication. Still others do best with a combination of the two. Talk with your doctor about the best treatment for you.

**LIVING WITH**

"One day, without any warning or reason, I felt terrified. I was so afraid, I thought I was going to die. My heart was pounding and my head was spinning. I would get these feelings every couple of weeks. I thought I was losing my mind."

"The more attacks I had, the more afraid I got. I was always living in fear. I didn't know when I might have another attack. I became so afraid that I didn't want to leave my house."

"My friend saw how afraid I was and told me to call my doctor for help. My doctor told me I was physically healthy but that I have panic disorder. My doctor gave me medicine that helps me feel less afraid. I've also been working with a counselor learning ways to cope with my fear. I had to work hard, but after a few months of medicine and therapy, I'm starting to feel like myself again."

**CLINICAL TRIALS**

NIMH supports research studies on mental health and disorders. See also: A Participant's Guide to Mental Health Clinical Research.
Participate, refer a patient or learn about results of studies in ClinicalTrials.gov, the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with panic disorder.
Post-Traumatic Stress Disorder

DEFINITION

PTSD is a disorder that develops in some people who have seen or lived through a shocking, scary, or dangerous event.

It is natural to feel afraid during and after a traumatic situation. Fear triggers many split-second changes in the body to help defend against danger or to avoid it. This “fight-or-flight” response is a healthy reaction meant to protect a person from harm. Nearly everyone will experience a range of reactions after trauma, yet most people recover from initial symptoms naturally. Those who continue to experience problems may be diagnosed with PTSD. People who have PTSD may feel stressed or frightened even when they are not in danger.

SIGNS AND SYMPTOMS

Not every traumatized person develops ongoing (chronic) or even short-term (acute) PTSD. Symptoms usually begin early, within 3 months of the traumatic incident, but sometimes they begin years afterward. Symptoms must last more than a month to be considered PTSD. The course of the illness varies. Some people recover within 6 months, while others have symptoms that last much longer. In some people, the condition becomes chronic.

A doctor who has experience helping people with mental illnesses, such as a psychiatrist or psychologist, can diagnose PTSD.

To be diagnosed with PTSD, an adult must have all of the following for at least 1 month:

- At least one re-experiencing symptom
- At least one avoidance symptom
- At least two arousal and reactivity symptoms
- At least two cognition and mood symptoms

RE-EXPERIENCING SYMPTOMS INCLUDE:

- Flashbacks—reliving the trauma over and over, including physical symptoms like a racing heart or sweating
- Bad dreams
- Frightening thoughts
Re-experiencing symptoms may cause problems in a person's everyday routine. The symptoms can start from the person's own thoughts and feelings. Words, objects, or situations that are reminders of the event can also trigger re-experiencing symptoms.

**AVOIDANCE SYMPTOMS INCLUDE:**

- Staying away from places, events, or objects that are reminders of the traumatic experience
- Feeling emotionally numb
- Feeling strong guilt, depression, or worry
- Losing interest in activities that were enjoyable in the past
- Having trouble remembering the dangerous event

Things that remind a person of the traumatic event can trigger avoidance symptoms. These symptoms may cause a person to change his or her personal routine. For example, after a bad car accident, a person who usually drives may avoid driving or riding in a car.

**AROUSAL AND REACTIVITY SYMPTOMS INCLUDE:**

- Being easily startled
- Feeling tense or “on edge”
- Having difficulty sleeping
- Having angry outbursts

Arousal symptoms are usually constant, instead of being triggered by things that remind one of the traumatic events. These symptoms can make the person feel stressed and angry. They may make it hard to do daily tasks, such as sleeping, eating, or concentrating.

**COGNITION AND MOOD SYMPTOMS INCLUDE:**

- Trouble remembering key features of the traumatic event
- Negative thoughts about oneself or the world
- Distorted feelings like guilt or blame
- Loss of interest in enjoyable activities

Cognition and mood symptoms can begin or worsen after the traumatic event, but are not due to injury or substance use. These symptoms can make the person feel alienated or detached from friends or family members.

It is natural to have some of these symptoms after a dangerous event. Sometimes people have very serious symptoms that go away after a few weeks. This is called acute stress disorder, or ASD. When the symptoms last more than a few weeks and become an ongoing
problem, the person may have developed PTSD. Some people with PTSD don’t show any symptoms for weeks or months. PTSD is often accompanied by depression, substance abuse, or one or more of the other anxiety disorders.

**DO CHILDREN REACT DIFFERENTLY THAN ADULTS?**

Children and teens can have extreme reactions to trauma, but their symptoms may not be the same as adults. In very young children (less than 6 years of age), these symptoms can include:

- Wetting the bed after having learned to use the toilet
- Forgetting how to or being unable to talk
- Acting out the scary event during playtime
- Being unusually clingy with a parent or other adult

Older children and teens are more likely to show symptoms similar to those seen in adults. They may also develop disruptive, disrespectful, or destructive behaviors. Older children and teens may feel guilty for not preventing injury or deaths. They may also have thoughts of revenge. For additional information, visit the Learn More section below. The National Institute of Mental Health (NIMH) offers free print materials in English and Spanish. These can be read online, downloaded, or delivered to you in the mail.

**RISK FACTORS**

Anyone can develop PTSD at any age. This includes war veterans, children, and people who have been through a physical or sexual assault, abuse, accident, disaster, or many other serious events. According to the [National Center for PTSD](https://www.nctic.gov/), about 7 or 8 out of every 100 people will experience PTSD at some point in their lives. Women are more likely to develop PTSD than men, and genes may make some people more likely to develop PTSD than others.

Not everyone with PTSD has been through a dangerous event. Some people develop PTSD after a friend or family member experiences danger or harm. The sudden, unexpected death of a loved one can also lead to PTSD.

**WHY DO SOME PEOPLE DEVELOP PTSD AND OTHER PEOPLE DO NOT?**

It is important to remember that not everyone who lives through a dangerous event gets PTSD. In fact, most people will not get the disorder.

Many factors play a part in whether a person will develop PTSD. Some examples are listed below. *Risk factors* make a person more likely to get PTSD. Other factors, called *resilience factors*, can help reduce the risk of the disorder.
RISK FACTORS AND RESILIENCE FACTORS FOR PTSD

Some factors that increase risk for PTSD include:

- Living through dangerous events and traumas
- Getting hurt
- Seeing another person hurt, or seeing a dead body
- Childhood trauma
- Feeling horror, helplessness, or extreme fear
- Having little or no social support after the event
- Dealing with extra stress after the event, such as loss of a loved one, pain and injury, or loss of a job or home
- Having a history of mental illness

Some resilience factors that may reduce the risk of PTSD include:

- Seeking out support from other people, such as friends and family
- Finding a support group after a traumatic event
- Learning to feel good about one’s own actions in the face of danger
- Having a positive coping strategy, or a way of getting through the bad event and learning from it
- Being able to act and respond effectively despite feeling fear

Researchers are studying the importance of these and other risk and resilience factors, including genetics and neurobiology. With more research, someday it may be possible to predict who is likely to get PTSD and to prevent it.

TREATMENTS AND THERAPIES

The main treatments for people with PTSD are medications, psychotherapy ("talk" therapy), or both. Everyone is different, and PTSD affects people differently so a treatment that works for one person may not work for another. It is important for anyone with PTSD to be treated by a mental health provider who is experienced with PTSD. Some people with PTSD need to try different treatments to find what works for their symptoms.

If someone with PTSD is going through an ongoing trauma, such as being in an abusive relationship, both of the problems need to be addressed. Other ongoing problems can include panic disorder, depression, substance abuse, and feeling suicidal.

MEDICATIONS
The most studied medications for treating PTSD include antidepressants, which may help control PTSD symptoms such as sadness, worry, anger, and feeling numb inside. Antidepressants and other medications may be prescribed along with psychotherapy.

Doctors and patients can work together to find the best medication or medication combination, as well as the right dose. Check the U.S. Food and Drug Administration website ([http://www.fda.gov/](http://www.fda.gov/)) for the latest information on patient medication guides, warnings, or newly approved medications.

**PSYCHOTHERAPY**

Psychotherapy (sometimes called “talk therapy”) involves talking with a mental health professional to treat a mental illness. Psychotherapy can occur one-on-one or in a group. Talk therapy treatment for PTSD usually lasts 6 to 12 weeks, but it can last longer. Research shows that support from family and friends can be an important part of therapy.

Many types of psychotherapy can help people with PTSD. Some types target the symptoms of PTSD directly. Other therapies focus on social, family, or job-related problems. The doctor or therapist may combine different therapies depending on each person's needs.

Effective psychotherapies tend to emphasize a few key components, including education about symptoms, teaching skills to help identify the triggers of symptoms, and skills to manage the symptoms. One helpful form of therapy is called cognitive behavioral therapy, or CBT. CBT can include:

- **Exposure therapy.** This helps people face and control their fear. It gradually exposes them to the trauma they experienced in a safe way. It uses imagining, writing, or visiting the place where the event happened. The therapist uses these tools to help people with PTSD cope with their feelings.

- **Cognitive restructuring.** This helps people make sense of the bad memories. Sometimes people remember the event differently than how it happened. They may feel guilt or shame about something that is not their fault. The therapist helps people with PTSD look at what happened in a realistic way.

There are other types of treatment that can help as well. People with PTSD should talk about all treatment options with a therapist. Treatment should equip individuals with the skills to manage their symptoms and help them participate in activities that they enjoyed before developing PTSD.

How Talk Therapies Help People Overcome PTSD

Talk therapies teach people helpful ways to react to the frightening events that trigger their PTSD symptoms. Based on this general goal, different types of therapy may:
• Teach about trauma and its effects
• Use relaxation and anger-control skills
• Provide tips for better sleep, diet, and exercise habits
• Help people identify and deal with guilt, shame, and other feelings about the event
• Focus on changing how people react to their PTSD symptoms. For example, therapy helps people face reminders of the trauma.

BEYOND TREATMENT: HOW CAN I HELP MYSELF?

It may be very hard to take that first step to help yourself. It is important to realize that although it may take some time, with treatment, you can get better. If you are unsure where to go for help, ask your family doctor. You can also check the Internet under “mental health providers,” “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.

To help yourself while in treatment:

• Talk to your doctor about treatment options
• Engage in mild physical activity or exercise to help reduce stress
• Set realistic goals for yourself
• Break up large tasks into small ones, set some priorities, and do what you can as you can
• Try to spend time with other people, and confide in a trusted friend or relative. Tell others about things that may trigger symptoms.
• Expect your symptoms to improve gradually, not immediately
• Identify and seek out comforting situations, places, and people

Caring for yourself and others is especially important when large numbers of people are exposed to traumatic events (such as natural disasters, accidents, and violent acts). For more information, see the Learn More section, below.

NEXT STEPS FOR PTSD RESEARCH

In the last decade, progress in research on the mental and biological foundations of PTSD has lead scientists to focus on better understanding the underlying causes of why people experience a range of reactions to trauma.

• NIMH-funded researchers are exploring patients in acute care settings to better understand the changes that occur in individuals who do not recover compared with those who are resilient.
Other research is looking at how fear memories are affected by learning, changes in the body, or even sleep.
Research on preventing the development of PTSD soon after trauma exposure is also under way.
Still other research is attempting to identify what factors determine whether someone with PTSD will respond well to one type of intervention or another, aiming to develop more personalized, effective, and efficient treatments.
As gene research and brain imaging technologies continue to improve, scientists are more likely to be able to pinpoint when and where in the brain PTSD begins. This understanding may then lead to better targeted treatments to suit each person’s own needs or even prevent the disorder before it causes harm.

JOIN A STUDY

WHAT ARE CLINICAL TRIALS?

Clinical trials are research studies that look at new ways to prevent, detect, or treat diseases and conditions, including PTSD. During clinical trials, treatments might be new drugs or new combinations of drugs, new surgical procedures or devices, or new ways to use existing treatments. The goal of clinical trials is to determine if a new test or treatment works and is safe. Although individual participants may benefit from being part of a clinical trial, participants should be aware that the primary purpose of a clinical trial is to gain new scientific knowledge so that others may be better helped in the future.

Please Note: Decisions about whether to participate in a clinical trial, and which ones are best suited for a given individual, are best made in collaboration with your licensed health professional.

HOW DO I FIND A CLINICAL TRIALS AT NIMH ON DEPRESSION?

Doctors at NIMH are dedicated to mental health research. The studies take place at the NIH Clinical Center in Bethesda, Maryland and require regular visits. After the initial phone interview, you will come to an appointment at the clinic and meet with one of our clinicians. Find NIH-funded studies currently recruiting participants with PTSD by using ClinicalTrials.gov (search: PTSD).

HOW DO I FIND A CLINICAL TRIAL NEAR ME?

To search for a clinical trial near you, you can visit ClinicalTrials.gov. This is a searchable registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a
trial’s purpose, who may participate, locations, and phone numbers to call for more details. This information should be used in conjunction with advice from health professionals.

FREE BOOKLETS AND BROCHURES

You can download or order free copies of the following booklets and brochures in English or en Español:

- **Helping Children and Adolescents Cope with Violence and Disasters: What Community Members Can Do**: A brochure that describes what community members can do to help children and adolescents cope with violence and disasters.
- **Helping Children and Adolescents Cope with Violence and Disasters: What Parents Can Do**: A brochure that describes what parents can do to help children and adolescents cope with violence and disasters.
- **Helping Children and Adolescents Cope with Violence and Disasters: What Rescue Workers Can Do**: A brochure that describes what rescue workers can do to help children and adolescents cope with violence and disasters.
- **Post-Traumatic Stress Disorder**: This brochure describes post-traumatic stress disorder, signs and symptoms, treatment choices, and helpful resources.

MULTIMEDIA

- **Watch: Dr. Daniel Pine on Boosting Resilience to PTSD**: Dr. Daniel Pine on a NIH study that tracked Israeli soldiers through deployment to ID predictors. Study found that soldiers preoccupied with threat at the time of enlistment or with avoiding it just before deployment were more likely to develop post-traumatic stress disorder (PTSD).
- For more videos, visit PTSD – Multimedia.

FEDERAL RESOURCES

- MedlinePlus offers information in English and en Español.
- The National Center for PTSD, part of the U.S. Department of Veterans Affairs, has a website with targeted information for anyone interested in PTSD (including veterans, family, and friends) and for professional researchers and health care providers. The site also offers videos and information about an online app called PTSD Coach.
- Mass Trauma:
Information for health care professionals: The National Center for PTSD offers a page of general information about the effects of events such as natural disasters and terrorist acts, reviews of disaster research, and useful resources for care providers.

Information for the general public: The National Center for PTSD offers a page of resources for people who have experienced an act of terrorism. Materials include resources for survivors and the public, tips for veterans coping with violent events, and suggestions for helping caregivers respond to children.

RESEARCH AND STATISTICS

- **Journal Articles**: References and abstracts from MEDLINE/PubMed (National Library of Medicine).
- **Statistics: PTSD Among Adults**
- **Statistics: PTSD Among Children**
Social Phobia (Social Anxiety Disorder)

CAUSES

Social phobia sometimes runs in families, but no one knows for sure why some people have it while others don't. Researchers have found that several parts of the brain are involved in fear and anxiety. By learning more about fear and anxiety in the brain, scientists may be able to create better treatments. Researchers are also looking for ways in which stress and environmental factors may play a role.

SIGNS & SYMPTOMS

People with social phobia tend to:

- Be very anxious about being with other people and have a hard time talking to them, even though they wish they could
- Be very self-conscious in front of other people and feel embarrassed
- Be very afraid that other people will judge them
- Worry for days or weeks before an event where other people will be
- Stay away from places where there are other people
- Have a hard time making friends and keeping friends
- Blush, sweat, or tremble around other people
- Feel nauseous or sick to their stomach when with other people.

WHO IS AT RISK?

Social phobia affects about 15 million American adults. Women and men are equally likely to develop the disorder, which usually begins in childhood or early adolescence. There is some evidence that genetic factors are involved. Social phobia is often accompanied by other anxiety disorders or depression. Substance abuse may develop if people try to self-medicate their anxiety.

DIAGNOSIS

Social phobia usually starts during youth. A doctor can tell that a person has social phobia if the person has had symptoms for at least 6 months. Without treatment, social phobia can last for many years or a lifetime.

Social phobia can be limited to one situation (such as talking to people, eating or drinking, or writing on a blackboard in front of others) or may be so broad (such as in generalized
social phobia) that the person experiences anxiety around almost anyone other than the family.

First, talk to your doctor about your symptoms. Your doctor should do an exam to make sure that another physical problem isn't causing the symptoms. The doctor may refer you to a mental health specialist.

TREATMENTS

Social phobia is generally treated with psychotherapy, medication, or both.

**Psychotherapy.** A type of psychotherapy called Cognitive behavior therapy (cbt) is especially useful for treating social phobia. It teaches a person different ways of thinking, behaving, and reacting to situations that help him or her feel less anxious and fearful. It can also help people learn and practice social skills.

**Medication.** Doctors also may prescribe medication to help treat social phobia. The most commonly prescribed medications for social phobia are anti-anxiety medications and antidepressants. Anti-anxiety medications are powerful and there are different types. Many types begin working right away, but they generally should not be taken for long periods.

Antidepressants are used to treat depression, but they are also helpful for social phobia. They are probably more commonly prescribed for social phobia than anti-anxiety medications. Antidepressants may take several weeks to start working. Some may cause side effects such as headache, nausea, or difficulty sleeping. These side effects are usually not a problem for most people, especially if the dose starts off low and is increased slowly over time. Talk to your doctor about any side effects you may have.

A type of antidepressant called monoamine oxidase inhibitors (MAOIs) are especially effective in treating social phobia. However, they are rarely used as a first line of treatment because when MAOIs are combined with certain foods or other medicines, dangerous side effects can occur.

It's important to know that although antidepressants can be safe and effective for many people, they may be risky for some, especially children, teens, and young adults. A "black box"—the most serious type of warning that a prescription drug can have—has been added to the labels of antidepressant medications. These labels warn people that antidepressants may cause some people to have suicidal thoughts or make suicide attempts.
Anyone taking antidepressants should be monitored closely, especially when they first start treatment with medications.

Another type of medication called beta-blockers can help control some of the physical symptoms of social phobia such as excessive sweating, shaking, or a racing heart. They are most commonly prescribed when the symptoms of social phobia occur in specific situations, such as "stage fright."

Some people do better with cognitive behavior therapy, while others do better with medication. Still others do best with a combination of the two. Talk with your doctor about the best treatment for you.

**LIVING WITH**

"In school I was always afraid of being called on, even when I knew the answers. When I got a job, I hated to meet with my boss. I couldn’t eat lunch with my co-workers. I worried about being stared at or judged, and worried that I would make a fool of myself. My heart would pound and I would start to sweat when I thought about meetings. The feelings got worse as the time of the event got closer. Sometimes I couldn’t sleep or eat for days before a staff meeting."

“In any social situation, I felt fear. I would be anxious before I even left the house, and it would escalate as I got closer to a college class, a party, or whatever. I would feel sick in my stomach—it almost felt like I had the flu. My heart would pound, my palms would get sweaty, and I would get this feeling of being removed from myself and from everybody else."

“When I would walk into a room full of people, I’d turn red and it would feel like everybody’s eyes were on me. I was embarrassed to stand off in a corner by myself, but I couldn’t think of anything to say to anybody. It was humiliating. I felt so clumsy, I couldn’t wait to get out.”

**CLINICAL TRIALS**

NIMH supports research studies on mental health and disorders. See also: A Participant’s Guide to Mental Health Clinical Research.

Participate, refer a patient or learn about results of studies in [ClinicalTrials.gov](https://clinicaltrials.gov), the NIH/National Library of Medicine’s registry of federally and privately funded clinical trials for all disease.

Find NIH-funded studies currently recruiting participants with [social phobia](https://clinicaltrials.gov).
Schizophrenia

DEFINITION

Schizophrenia is a chronic and severe mental disorder that affects how a person thinks, feels, and behaves. People with schizophrenia may seem like they have lost touch with reality. Although schizophrenia is not as common as other mental disorders, the symptoms can be very disabling.

SIGNS AND SYMPTOMS

Symptoms of schizophrenia usually start between ages 16 and 30. In rare cases, children have schizophrenia too.

The symptoms of schizophrenia fall into three categories: positive, negative, and cognitive.

Positive symptoms: “Positive” symptoms are psychotic behaviors not generally seen in healthy people. People with positive symptoms may “lose touch” with some aspects of reality. Symptoms include:

- Hallucinations
- Delusions
- Thought disorders (unusual or dysfunctional ways of thinking)
- Movement disorders (agitated body movements)

Negative symptoms: “Negative” symptoms are associated with disruptions to normal emotions and behaviors. Symptoms include:

- “Flat affect” (reduced expression of emotions via facial expression or voice tone)
- Reduced feelings of pleasure in everyday life
- Difficulty beginning and sustaining activities
- Reduced speaking

Cognitive symptoms: For some patients, the cognitive symptoms of schizophrenia are subtle, but for others, they are more severe and patients may notice changes in their memory or other aspects of thinking. Symptoms include:

- Poor “executive functioning” (the ability to understand information and use it to make decisions)
- Trouble focusing or paying attention
- Problems with “working memory” (the ability to use information immediately after learning it)
RISK FACTORS

There are several factors that contribute to the risk of developing schizophrenia.

**Genes and environment:** Scientists have long known that schizophrenia sometimes runs in families. However, there are many people who have schizophrenia who don’t have a family member with the disorder and conversely, many people with one or more family members with the disorder who do not develop it themselves.

Scientists believe that many different genes may increase the risk of schizophrenia, but that no single gene causes the disorder by itself. It is not yet possible to use genetic information to predict who will develop schizophrenia.

Scientists also think that interactions between genes and aspects of the individual’s environment are necessary for schizophrenia to develop. Environmental factors may involve:

- Exposure to viruses
- Malnutrition before birth
- Problems during birth
- Psychosocial factors

**Different brain chemistry and structure:** Scientists think that an imbalance in the complex, interrelated chemical reactions of the brain involving the neurotransmitters (substances that brain cells use to communicate with each other) dopamine and glutamate, and possibly others, plays a role in schizophrenia.

Some experts also think problems during brain development before birth may lead to faulty connections. The brain also undergoes major changes during puberty, and these changes could trigger psychotic symptoms in people who are vulnerable due to genetics or brain differences.

TREATMENTS AND THERAPIES

Because the causes of schizophrenia are still unknown, treatments focus on eliminating the symptoms of the disease. Treatments include:

- **Antipsychotic medications:** Antipsychotic medications are usually taken daily in pill or liquid form. Some antipsychotics are injections that are given once or twice a month. Some people have side effects when they start taking medications, but most side effects go away after a few days. Doctors and patients can work together to find the best medication or medication combination, and the right dose. Check the U.S. Food and Drug Administration (FDA) website: [http://www.fda.gov/](http://www.fda.gov/), for the latest
information on warnings, patient medication guides, or newly approved medications.

- **Psychosocial treatments**: These treatments are helpful after patients and their doctor find a medication that works. Learning and using coping skills to address the everyday challenges of schizophrenia helps people to pursue their life goals, such as attending school or work. Individuals who participate in regular psychosocial treatment are less likely to have relapses or be hospitalized. For more information on psychosocial treatments, see the [Psychotherapies webpage](https://www.nimh.nih.gov) on the NIMH website.

- **Coordinated specialty care (CSC)**: This treatment model integrates medication, psychosocial therapies, case management, family involvement, and supported education and employment services, all aimed at reducing symptoms and improving quality of life. The NIMH [Recovery After an Initial Schizophrenia Episode (RAISE)](https://www.nimh.nih.gov) research project seeks to fundamentally change the trajectory and prognosis of schizophrenia through coordinated specialty care treatment in the earliest stages of the disorder. RAISE is designed to reduce the likelihood of long-term disability that people with schizophrenia often experience and help them lead productive, independent lives.

**HOW CAN I HELP SOMEONE I KNOW WITH SCHIZOPHRENIA?**

Caring for and supporting a loved one with schizophrenia can be hard. It can be difficult to know how to respond to someone who makes strange or clearly false statements. It is important to understand that schizophrenia is a biological illness.

Here are some things you can do to help your loved one:

- Get them treatment and encourage them to stay in treatment
- Remember that their beliefs or hallucinations seem very real to them
- Tell them that you acknowledge that everyone has the right to see things their own way
- Be respectful, supportive, and kind without tolerating dangerous or inappropriate behavior
- Check to see if there are any support groups in your area

**JOIN A STUDY**

Clinical trials are research studies that look at new ways to prevent, detect, or treat diseases and conditions, including schizophrenia. During clinical trials, treatments might be new drugs or new combinations of drugs, new surgical procedures or devices, or new ways to use existing treatments. The goal of clinical trials is to determine if a new test or treatment works and is safe. Although individual participants may benefit from being part
of a clinical trial, participants should be aware that the primary purpose of a clinical trial is to gain new scientific knowledge so that others may be better helped in the future.

**Please note:** Decisions about whether to participate in a clinical trial, and which ones are best suited for a given individual, are best made in collaboration with your licensed health professional.

**HOW DO I FIND CLINICAL TRIALS AT NIMH/NIH?**

Scientists at the NIH campus conduct research on numerous areas of study, including cognition, genetics, epidemiology, and psychiatry. The studies take place at the NIH Clinical Center in Bethesda, Maryland and require regular visits. After the initial phone interview, you will come to an appointment at the clinic and meet with one of our clinicians.

Find NIH-funded studies currently recruiting participants with schizophrenia by using [ClinicalTrials.gov](http://ClinicalTrials.gov) (search schizophrenia) or visit [Join a Study: Adults - Schizophrenia](http://Join a Study: Adults - Schizophrenia).

**HOW DO I FIND A CLINICAL TRIAL NEAR ME?**

To search for a clinical trial near you, you can visit [ClinicalTrials.gov](http://ClinicalTrials.gov). This is a searchable registry and results database of federally and privately supported clinical trials conducted in the United States and around the world. ClinicalTrials.gov gives you information about a trial’s purpose, who may participate, locations, and phone numbers to call for more details. This information should be used in conjunction with advice from health professionals.

**FREE BOOKLETS AND BROCHURES**

- **Schizophrenia:** A detailed booklet that provides an overview on schizophrenia. It describes symptoms, risk factors, and treatments. It also contains information on getting help and coping. Also available [en Español](http://en Espanol).
- **What is Schizophrenia?** A brief brochure on schizophrenia that offers basic information on signs and symptoms, treatment, and finding help.

Research and Clinical Trials

- **Recovery After an Initial Schizophrenia Episode (RAISE):** The NIMH-launched RAISE is a large-scale research initiative that began with two studies examining different aspects of coordinated specialty care (CSC) treatments for people who were experiencing first episode psychosis.
- **NIMH Schizophrenia Spectrum Disorders Research Program:** This program administers funding to scientists doing research into the origins, onset, course, and
outcome of schizophrenia, schizoaffective disorder, and such related conditions as schizotypal and schizoid personality disorders.

- **Schizophrenia Statistics:** This webpage provides information on the best statistics currently available on the prevalence and treatment of schizophrenia in the U.S.
- **Schizophrenia Clinical Trials at NIMH: Adults:** This webpage lists NIMH clinical trials that are currently recruiting adults with schizophrenia.
- **Schizophrenia Clinical Trials at NIMH: Children:** This webpage lists NIMH clinical trials that are currently recruiting children with schizophrenia.
Suicide Prevention

INTRODUCTION

Suicide is a major public health concern. Over 41,000 people die by suicide each year in the United States; it is the 10th leading cause of death overall. Suicide is tragic. But it is often preventable. Knowing the risk factors for suicide and who is at risk can help reduce the suicide rate.

WHO IS AT RISK FOR SUICIDE?

Suicide does not discriminate. People of all genders, ages, and ethnicities can be at risk for suicide. But people most at risk tend to share certain characteristics. The main risk factors for suicide are:

- Depression, other mental disorders, or substance abuse disorder
- A prior suicide attempt
- Family history of a mental disorder or substance abuse
- Family history of suicide
- Family violence, including physical or sexual abuse
- Having guns or other firearms in the home
- Incarceration, being in prison or jail
- Being exposed to others' suicidal behavior, such as that of family members, peers, or media figures.

The risk for suicidal behavior is complex. Research suggests that people who attempt suicide differ from others in many aspects of how they think, react to events, and make decisions. There are differences in aspects of memory, attention, planning, and emotion, for example. These differences often occur along with disorders like depression, substance use, anxiety, and psychosis. Sometimes suicidal behavior is triggered by events such as personal loss or violence.

In order to be able to detect those at risk and prevent suicide, it is crucial that we understand the role of both long-term factors—such as experiences in childhood—and more immediate factors like mental health and recent life events. Researchers are also looking at how genes can either increase risk or make someone more resilient to loss and hardships.

Many people have some of these risk factors but do not attempt suicide. Suicide is not a normal response to stress. **It is however, a sign of extreme distress, not a harmless bid for attention.**
WHAT ABOUT GENDER?

Men are more likely to die by suicide than women, but women are more likely to attempt suicide. Men are more likely to use deadlier methods, such as firearms or suffocation. Women are more likely than men to attempt suicide by poisoning.

WHAT ABOUT CHILDREN?

Children and young people are at risk for suicide. Suicide is the second leading cause of death for young people ages 15 to 34.

Learn more:

Podcast on Warning Signs for Childhood Suicide

Podcast on Childhood Suicide and Keeping Kids Safe Online

WHAT ABOUT OLDER ADULTS?

Older adults are at risk for suicide, too. While older adults were the demographic group with the highest suicide rates for decades, suicide rates for middle aged adults have increased to comparable levels (ages 24-62). Among those age 65+, white males comprise over 80% of all late life suicides.

WHAT ABOUT DIFFERENT RACIAL/ETHNIC GROUPS?

Among racial and ethnic groups, American Indians and Alaska Natives tend to have the highest rate of suicides, followed by non-Hispanic Whites. Hispanics tend to have the lowest rate of suicides, while African Americans tend to have the second lowest rate.

HOW CAN SUICIDE BE PREVENTED?

Effective suicide prevention is based on sound research. Programs that work take into account people's risk factors and promote interventions that are appropriate to specific groups of people. For example, research has shown that mental and substance abuse disorders are risk factors for suicide. Therefore, many programs focus on treating these disorders in addition to addressing suicide risk specifically.

Psychotherapy, or "talk therapy," can effectively reduce suicide risk. One type is called cognitive behavioral therapy (CBT). CBT can help people learn new ways of dealing with stressful experiences by training them to consider alternative actions when thoughts of suicide arise.
Another type of psychotherapy called dialectical behavior therapy (DBT) has been shown to reduce the rate of suicide among people with borderline personality disorder, a serious mental illness characterized by unstable moods, relationships, self-image, and behavior. A therapist trained in DBT helps a person recognize when his or her feelings or actions are disruptive or unhealthy, and teaches the skills needed to deal better with upsetting situations.

Medications may also help; promising medications and psychosocial treatments for suicidal people are being tested.

Still other research has found that many older adults and women who die by suicide saw their primary care providers in the year before death. Training doctors to recognize signs that a person may be considering suicide may help prevent even more suicides.

IF YOU ARE IN CRISIS

Call the toll-free National Suicide Prevention Lifeline at 1-800-273-TALK (8255), available 24 hours a day, 7 days a week. The service is available to anyone. All calls are confidential. http://www.suicidepreventionlifeline.org

ADDITIONAL RESOURCES

- [National Suicide Prevention Lifeline](http://www.suicidepreventionlifeline.org)
- [Veterans Crisis Line](http://www.veteranscrisisline.net)
- [National Action Alliance for Suicide Prevention](http://www.suicideactionalliance.org)
- [National Council on Behavioral Health Webinar Series on Suicide Prevention](http://www.nationalsuicidepreventionmonth.org)
- [National Strategy for Suicide Prevention](http://www.suicidepreventionstrategies.org)
- [NIMH Multimedia on Suicide Prevention](http://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml)
- [National Library of Medicine - Suicide](http://www.nlm.nih.gov/medlineplus/suicide.html)
- [Take 5 To Save Lives](http://www.take5to.savlives.org)
- [StopBullying.org](http://www.stopbullying.gov)
RESOURCES FOR MEDIA

- Recommendations for Reporting on Suicide
- Social Media Guidelines for Mental Health Promotion and Suicide Prevention (pdf)

RESOURCES FOR RESEARCHERS

- NIMH Funding Opportunities
- Most Recent Suicide Statistics: Centers for Disease Control and Prevention Web Site on Injury Mortality