



Anxiety Disorders

CE-CREDIT.com "Your Continuing Education Resource"

DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICE NATIONAL INSTITUTES OF HEALTH

NIMH
National Institute
of Mental Health

For more information on research into the brain, behavior, and mental disorders contact:

National Institute of Mental Health
Information Resources and Inquiries Branch
6001 Executive Boulevard, Room 8184, MSC 9663
Bethesda, Maryland 20892-9663
Telephone: 1-301-443-4513
TTY: 1-301-443-8431
FAX: 1-301-443-4279
Mental Health FAX 4U: 1-301-443-5158
E-mail: nimhinfo@nih.gov
Website: <http://www.nimh.nih.gov>

CE-CREDIT.com "Your Continuing Education Resource"

Anxiety disorders are serious medical illnesses that affect approximately 19 million American adults.¹ These

disorders fill people's lives with overwhelming anxiety and fear. Unlike the relatively mild, brief anxiety caused by a stressful event such as a business presentation or a first date, anxiety disorders are chronic, relentless, and can grow progressively worse if not treated.

Effective treatments for anxiety disorders are available, and research is yielding new, improved therapies that can help most people with anxiety disorders lead productive, fulfilling lives. If you think you have an anxiety disorder, you should seek information and treatment.

This brochure will

- help you identify the symptoms of anxiety disorders,
- explain the role of research in understanding

- the causes of these conditions,
- describe effective treatments,
- help you learn how to obtain treatment and work with a doctor or therapist, and
- suggest ways to make treatment more effective.

The anxiety disorders discussed in this brochure are

- panic disorder,
- obsessive-compulsive disorder,
- post-traumatic stress disorder,
- social phobia (or social anxiety disorder),
- specific phobias, and
- generalized anxiety disorder.

Each anxiety disorder has its own distinct features, but they are all bound together by the common theme of excessive, irrational fear and dread.

The National Institute of Mental Health (NIMH) supports scientific investigation into the causes, diagnosis, treatment, and prevention of anxiety disorders and other mental illnesses. The NIMH mission is to reduce the burden of mental illness through research on mind, brain, and behavior. NIMH is a component of the National Institutes of Health, which is part of the U.S. Department of Health and Human Services.

Panic Disorder

***“It started 10 years ago, when I had just graduated from college and started a new job. I was sitting in a business seminar in a hotel and this thing came out of the blue. I felt like I was dying.*”**

“For me, a panic attack is almost a violent experience. I feel disconnected from reality. I feel like I’m losing control in a very extreme way. My heart pounds really hard, I feel like I can’t get my breath, and there’s an overwhelming feeling that things are crashing in on me.

“In between attacks there is this dread and anxiety that it’s going to happen again. I’m afraid to go back to places where I’ve had an attack. Unless I get help, there soon won’t be anyplace where I can go and feel safe from panic.”

People with panic disorder have feelings of terror that strike suddenly and repeatedly with no warning. They can’t predict when an attack will occur, and many develop intense anxiety between episodes, worrying when and where the next one will strike.

If you are having a panic attack, most likely your heart will pound and you may feel sweaty, weak, faint, or dizzy. Your hands may tingle or feel numb, and you might feel flushed or chilled. You may have nausea, chest pain or smothering sensations, a sense of unreality, or fear of impending doom or loss of control. You may genuinely believe you’re having a heart attack or losing your mind, or on the verge of death.

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

Panic disorder affects about 2.4 million adult Americans¹ and is twice as common in women as in men.² It most often begins during late adolescence or early adulthood.² Risk of developing panic disorder appears to be inherited.³ Not everyone who experiences panic attacks will develop panic disorder—for example, many people have one attack but never have another. For those

who do have panic disorder, though, it's important to seek treatment. Untreated, the disorder can become very disabling.

Many people with panic disorder visit the hospital emergency room repeatedly or see a number of doctors before they obtain a correct diagnosis. Some people with panic disorder may go for years without learning that they have a real, treatable illness.

Panic disorder is often accompanied by other serious conditions such as depression, drug abuse, or alcoholism^{4,5} and may lead to a pattern of avoidance of places or situations where panic attacks have occurred. For example, if a panic attack strikes while you're riding in an elevator, you may develop a fear of elevators. If you start avoiding them, that could affect your choice of a job or apartment and greatly restrict other parts of your life.

Some people's lives become so restricted that they avoid normal, everyday activities such as grocery shopping or driving. In some cases they become housebound. Or, they may be able to confront a feared situation only if accompanied by a spouse or other trusted person.

Basically, these people avoid any situation in which they would feel helpless if a panic attack were to occur. When people's lives become so restricted, as happens in about one-third of people with panic disorder,² the condition is called *agoraphobia*. Early treatment of panic disorder can often prevent agoraphobia.

Panic disorder is one of the most treatable of the anxiety disorders, responding in most cases to medications or carefully targeted psychotherapy.

You may genuinely believe you're having a heart attack, losing your mind, or are on the verge of death. Attacks can occur at any time, even during sleep.

Depression

Depression often accompanies anxiety disorders⁴ and, when it does, it needs to be treated as well. Symptoms of depression include feelings of sadness, hopelessness, changes in appetite or sleep, low energy, and difficulty concentrating. Most people with depression can be effectively treated with antidepressant medications, certain types of psychotherapy, or a combination of both.

Obsessive-Compulsive Disorder

“I couldn’t do anything without rituals. They invaded every aspect of my life. Counting really bogged me down. I would wash my hair three times as opposed to once because three was a good luck number and one wasn’t. It took me longer to read because I’d count the lines in a paragraph. When I set my alarm at night, I had to set it to a number that wouldn’t add up to a ‘bad’ number.

“Getting dressed in the morning was tough because I had a routine, and if I didn’t follow the routine, I’d get anxious and would have to get dressed again. I always worried that if I didn’t do something, my parents were going to die. I’d have these terrible thoughts of harming my parents. That was completely irrational, but the thoughts triggered more anxiety and more senseless behavior. Because of the time I spent on rituals, I was unable to do a lot of things that were important to me.

“I knew the rituals didn’t make sense, and I was deeply ashamed of them, but I couldn’t seem to overcome them until I had therapy.”

Obsessive-compulsive disorder, or OCD, involves anxious thoughts or rituals you feel you can't control. If you have OCD, you may be plagued by persistent, unwelcome thoughts or images, or by the urgent need to engage in certain rituals.

You may be obsessed with germs or dirt, so you wash your hands over and over. You may be filled with doubt and feel the need to check things repeatedly. You may have frequent thoughts of violence, and fear that you will harm people close to you. You may spend long periods touching things or counting; you may be preoccupied by order or symmetry; you may have persistent thoughts of performing sexual acts that are repugnant to you; or you may be troubled by thoughts that are against your religious beliefs.

The disturbing thoughts or images are called obsessions, and the rituals that are performed to try to prevent or get rid of them are called compulsions. There is no pleasure in carrying out the rituals you are drawn to, only temporary relief from the anxiety that grows when you don't perform them.

A lot of healthy people can identify with some of the symptoms of OCD, such as checking the stove several times before leaving the house. But for people with OCD, such activities consume at least an hour a day, are very distressing, and interfere with daily life.

Most adults with this condition recognize that what they're doing is senseless, but they can't stop it. Some people, though, particularly children with OCD, may not realize that their behavior is out of the ordinary.

OCD afflicts about 3.3 million adult Americans.¹ It strikes men and women in approximately equal numbers and usually first appears in childhood, adolescence, or early adulthood.² One-third of adults with OCD report having experienced their first symptoms as children. The course of the disease is variable—symptoms may come and go, they may ease over time, or they can grow

progressively worse. Research evidence suggests that OCD might run in families.³

Depression or other anxiety disorders may accompany OCD^{2,4}, and some people with OCD also have eating disorders.⁶ In addition, people with OCD may avoid situations in which they might have to confront their obsessions, or they may try unsuccessfully to use alcohol or drugs to calm themselves.^{4,5} If OCD grows severe enough, it can keep someone from holding down a job or from carrying out normal responsibilities at home.

OCD generally responds well to treatment with medications or carefully targeted psychotherapy.

The disturbing thoughts or images are called obsessions, and the rituals performed to try to prevent or get rid of them are called compulsions. There is no pleasure in carrying out the rituals you are drawn to, only temporary relief from the anxiety that grows when you don't perform them.

Post-Traumatic Stress Disorder

"I was raped when I was 25 years old. For a long time, I spoke about the rape as though it was something that happened to someone else. I was very aware that it had happened to me, but there was just no feeling.

"Then I started having flashbacks. They kind of came over me like a splash of water. I would be terrified. Suddenly I was reliving the rape. Every instant was startling. I wasn't aware of anything around

me, I was in a bubble, just kind of floating. And it was scary. Having a flashback can wring you out.

“The rape happened the week before Thanksgiving, and I can’t believe the anxiety and fear I feel every year around the anniversary date. It’s as though I’ve seen a werewolf. I can’t relax, can’t sleep, don’t want to be with anyone. I wonder whether I’ll ever be free of this terrible problem.”

Post-traumatic stress disorder (PTSD) is a debilitating condition that can develop following a terrifying event. Often, people with PTSD have persistent frightening thoughts and memories of their ordeal and feel emotionally numb, especially with people they were once close to. PTSD was first brought to public attention by war veterans, but it can result from any number of traumatic incidents. These include violent attacks such as mugging, rape or torture; being kidnapped or held captive; child abuse; serious accidents such as car or train wrecks; and natural disasters such as floods or earthquakes. The event that triggers PTSD may be something that threatened the person’s life or the life of someone close to him or her. Or it could be something witnessed, such as massive death and destruction after a building is bombed or a plane crashes. In the aftermath of the events of September 11, 2001, both adults and children have struggled with the emotional impact of large-scale damage and loss of life.

Whatever the source of the problem, some people with PTSD repeatedly relive the trauma in the form of nightmares and disturbing recollections during the day. They may also experience other sleep problems, feel detached or numb, or be easily startled. They may lose interest in things they used to enjoy and have trouble feeling affectionate. They may feel irritable, more aggressive than before, or even violent. Things that remind them of the trauma may be very distressing, which could lead them to avoid certain places or

CE-CREDIT.com "Your Continuing Education Resource"

situations that bring back those memories. Anniversaries of the traumatic event are often very difficult.

PTSD affects about 5.2 million adult Americans.¹ Women are more likely than men to develop PTSD.⁷ It can occur at any age, including childhood,⁸ and there is some evidence that susceptibility to PTSD may run in families.⁹ The disorder is often accompanied by depression, substance abuse, or one or more other anxiety disorders.⁴ In severe cases, the person may have trouble working or socializing. In general, the symptoms seem to be worse if the event that triggered them was deliberately initiated by a person—such as a rape or kidnapping.

Ordinary events can serve as reminders of the trauma and trigger flashbacks or intrusive images. A person having a flashback, that can come in the form of images, sounds, smells, or feelings, may lose touch with reality and may feel as though the traumatic event is happening all over again.

Not every traumatized person gets full-blown PTSD, or experiences PTSD at all. PTSD is diagnosed only if the symptoms last more than a month. In those who do develop PTSD, symptoms usually begin within 3 months of the trauma, and the course of the illness varies. Some people recover within 6 months, others have symptoms that last much longer. In some cases, the condition may be chronic. Occasionally, the illness doesn't show up until years after the traumatic event.

People with PTSD can be helped by medications and carefully targeted psychotherapy.

Ordinary events can serve as reminders of the trauma and trigger flashbacks or intrusive images. Anniversaries of the traumatic event are often very difficult.

Social Phobia

(Social Anxiety Disorder)

“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 at 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.

“I couldn’t go on dates, and for a while I couldn’t even go to class. My sophomore year of college I had to come home for a semester. I felt like such a failure.”

Social phobia, also called social anxiety disorder, involves overwhelming anxiety and excessive self-consciousness in everyday social situations. People with social phobia have a persistent, intense, and chronic fear of being watched and judged by others and being embarrassed or humiliated by their own actions. Their fear may be so severe that it interferes with work or school, and other ordinary activities. While many people with social phobia recognize that their fear of being around people may be excessive or unreasonable, they are unable to overcome it. They often worry for days or weeks in advance of a dreaded situation.

Social phobia can be limited to only one type of situation—such as a fear of speaking in formal or informal situations, or

eating, drinking, or writing in front of others—or, in its most severe form, may be so broad that a person experiences symptoms almost anytime they are around other people. Social phobia can be very debilitating—it may even keep people from going to work or school on some days. Many people with this illness have a hard time making and keeping friends.

Physical symptoms often accompany the intense anxiety of social phobia and include blushing, profuse sweating, trembling, nausea, and difficulty talking. If you suffer from social phobia, you may be painfully embarrassed by these symptoms and feel as though all eyes are focused on you. You may be afraid of being with people other than your family.

People with social phobia are aware that their feelings are irrational. Even if they manage to confront what they fear, they usually feel very anxious beforehand and are intensely uncomfortable throughout. Afterward, the unpleasant feelings may linger, as they worry about how they may have been judged or what others may have thought or observed about them.

Social phobia affects about 5.3 million adult Americans.¹ Women and men are equally likely to develop social phobia.¹⁰ The disorder usually begins in childhood or early adolescence,² and there is some evidence that genetic factors are involved.¹¹ Social phobia often co-occurs with other anxiety disorders or depression.^{2,4} Substance abuse or dependence may develop in individuals who attempt to “self-medicate” their social phobia by drinking or using drugs.^{4,5} Social phobia can be treated successfully with carefully targeted psychotherapy or medications.

Social phobia can severely disrupt normal life, interfering with school, work, or social relationships. The dread of a feared event can begin weeks in advance and be quite debilitating.

Specific Phobias

“I’m scared to death of flying, and I never do it anymore. I used to start dreading a plane trip a month before I was due to leave. It was an awful feeling when that airplane door closed and I felt trapped. My heart would pound and I would sweat bullets. When the airplane would start to ascend, it just reinforced the feeling that I couldn’t get out. When I think about flying, I picture myself losing control, freaking out, climbing the walls, but of course I never did that. I’m not afraid of crashing or hitting turbulence. It’s just that feeling of being trapped. Whenever I’ve thought about changing jobs, I’ve had to think, ‘Would I be under pressure to fly?’ These days I only go places where I can drive or take a train. My friends always point out that I couldn’t get off a train traveling at high speeds either, so why don’t trains bother me? I just tell them it isn’t a rational fear.”

A specific phobia is an intense fear of something that poses little or no actual danger. Some of the more common specific phobias are centered around closed-in places, heights, escalators, tunnels, highway driving, water, flying, dogs, and injuries involving blood. Such phobias aren’t just extreme fear; they are irrational fear of a particular thing. You may be able to ski the world’s tallest mountains with ease but be unable to go above the 5th floor of an office building. While adults with phobias realize that these fears

are irrational, they often find that facing, or even thinking about facing, the feared object or situation brings on a panic attack or severe anxiety.

Specific phobias affect an estimated 6.3 million adult Americans¹ and are twice as common in women as in men.¹⁰ The causes of specific phobias are not well understood, though there is some evidence that these phobias may run in families.¹¹ Specific phobias usually first appear during childhood or adolescence and tend to persist into adulthood.¹²

If the object of the fear is easy to avoid, people with specific phobias may not feel the need to seek treatment. Sometimes, though, they may make important career or personal decisions to avoid a phobic situation, and if this avoidance is carried to extreme lengths, it can be disabling. Specific phobias are highly treatable with carefully targeted psychotherapy.

Phobias aren't just extreme fears; they are irrational fears. You may be able to ski the world's tallest mountains with ease but feel panic going above the 5th floor of an office building.

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.

“When my problems were at their worst, I’d miss work and feel just terrible about it. Then I worried that I’d lose my job. My life was miserable until I got treatment.”

Generalized anxiety disorder (GAD) is much more than the normal anxiety people experience day to day. It’s chronic and fills one’s day with exaggerated worry and tension, even though there is little or nothing to provoke it. Having this disorder means always anticipating disaster, often worrying excessively about health, money, family, or work. Sometimes, though, the source of the worry is hard to pinpoint. Simply the thought of getting through the day provokes anxiety.

People with GAD can’t seem to shake their concerns, even though they usually realize that their anxiety is more intense than the situation warrants. Their worries are accompanied by physical symptoms, especially fatigue, headaches, muscle tension, muscle aches, difficulty swallowing, trembling, twitching, irritability, sweating, and hot flashes. People with GAD may feel lightheaded or out of breath. They also may feel nauseated or have to go to the bathroom frequently.

Individuals with GAD seem unable to relax, and they may startle more easily than other people. They tend to have difficulty concentrating, too. Often, they have trouble falling or staying asleep.

Unlike people with several other anxiety disorders, people with GAD don't characteristically avoid certain situations as a result of their disorder. When impairment associated with GAD is mild, people with the disorder may be able to function in social settings or on the job. If severe, however, GAD can be very debilitating, making it difficult to carry out even the most ordinary daily activities.

GAD affects about 4 million adult Americans¹ and about twice as many women as men.² The disorder comes on gradually and can begin across the life cycle, though the risk is highest between childhood and middle age.² It is diagnosed when someone spends at least 6 months worrying excessively about a number of everyday problems. There is evidence that genes play a modest role in GAD.¹³

GAD is commonly treated with medications. GAD rarely occurs alone, however; it is usually accompanied by another anxiety disorder, depression, or substance abuse.^{2,4} These other conditions must be treated along with GAD.

Role of Research in Improving the Understanding and Treatment of Anxiety Disorders

NIMH supports research into the causes, diagnosis, prevention, and treatment of anxiety disorders and other mental illnesses. Studies examine the genetic and environmental risks for major anxiety disorders, their course—both alone and when they occur along with other diseases such as depression—and their treatment. The ultimate goal is to be able to cure, and perhaps even to prevent, anxiety disorders.

NIMH is harnessing the most sophisticated scientific tools available to determine the causes of anxiety disorders. Like heart disease and diabetes, these brain disorders are complex and probably result from a combination of genetic, behavioral, developmental, and other factors.

Several parts of the brain are key actors in a highly dynamic interplay that gives rise to fear and anxiety.¹⁴ Using brain imaging technologies and neurochemical techniques, scientists are finding that a network of interacting structures is responsible for these emotions. Much research centers on the amygdala, an almond-shaped structure deep within the brain. The amygdala is believed to serve as a communications hub between the parts of the brain that process incoming sensory signals and the parts that interpret them. It can signal that a threat is present, and trigger a fear response or anxiety. It appears that emotional memories stored in the central part of the amygdala may play a role in disorders involving very distinct fears, like phobias, while different parts may be involved in other forms of anxiety.

Other research focuses on the hippocampus, another brain structure that is responsible for processing threatening or traumatic stimuli. The hippocampus plays a key role in the brain by helping to encode information into memories. Studies have shown that the hippocampus appears to be smaller in people who have undergone severe stress because of child abuse or military combat.^{15,16} This reduced size could help explain why individuals with PTSD have flashbacks, deficits in explicit memory, and fragmented memory for details of the traumatic event.

Also, research indicates that other brain parts called the basal ganglia and striatum are involved in obsessive-compulsive disorder.¹⁷

By learning more about brain circuitry involved in fear and anxiety, scientists may be able to devise new and more specific treatments for anxiety disorders. For example, it someday may be possible to increase the influence of the thinking parts of the brain on the amygdala, thus placing the fear and anxiety response under conscious control. In addition, with new findings about neurogenesis (birth of new brain cells) throughout life,¹⁸ perhaps a method will be found to stimulate growth of new neurons in the hippocampus in people with PTSD.

NIMH-supported studies of twins and families suggest that genes play a role in the origin of anxiety disorders. But heredity alone can't explain what goes awry. Experience also plays a part. In PTSD, for example, trauma triggers the anxiety disorder; but genetic factors may explain why only certain individuals exposed to similar traumatic events develop full-blown PTSD. Researchers are attempting to learn how genetics and experience interact in each of the anxiety disorders—information they hope will yield clues to prevention and treatment.

Scientists supported by NIMH are also conducting clinical trials to find the most effective ways of treating anxiety disorders. For example, one trial is examining how well medication and behavioral therapies work together and separately in the treatment of OCD. Another trial is assessing the safety and efficacy of medication treatments for anxiety disorders in children and adolescents with co-occurring attention deficit hyperactivity disorder (ADHD). For more information about these and other clinical trials, visit the NIMH clinical trials web page, www.nimh.nih.gov/studies/index.cfm, or the National Library of Medicine's clinical trials database, www.clinicaltrials.gov.

Treatment of Anxiety Disorders

Effective treatments for each of the anxiety disorders have been developed through research.¹⁹ In general, two types of treatment are available for an anxiety disorder—medication and specific types of psychotherapy (sometimes called “talk therapy”). Both approaches can be effective for most disorders. The choice of one or the other, or both, depends on the patient’s and the doctor’s preference, and also on the particular anxiety disorder. For example, only psychotherapy has been found effective for specific phobias. When choosing a therapist, you should find out whether medications will be available if needed.

Before treatment can begin, the doctor must conduct a careful diagnostic evaluation to determine whether your symptoms are due to an anxiety disorder, which anxiety disorder(s) you may have, and what coexisting conditions may be present. Anxiety disorders are not all treated the same, and it is important to determine the specific problem before embarking on a course of treatment. Sometimes alcoholism or some other coexisting condition will have such an impact that it is necessary to treat it at the same time or before treating the anxiety disorder.

If you have been treated previously for an anxiety disorder, be prepared to tell the doctor what treatment you tried. If it was a medication, what was the dosage, was it gradually increased, and how long did you take it? If you had psychotherapy, what kind was it, and how often did you attend sessions? It often happens that people believe they have “failed” at treatment, or that the treatment has failed them, when in fact it was never given an adequate trial.

When you undergo treatment for an anxiety disorder, you and your doctor or therapist will be working together as a team. Together, you will attempt to find the approach that is best for you.

If one treatment doesn't work, the odds are good that another one will. And new treatments are continually being developed through research. So don't give up hope.

Medications

Psychiatrists or other physicians can prescribe medications for anxiety disorders. These doctors often work closely with psychologists, social workers, or counselors who provide psychotherapy. Although medications won't cure an anxiety disorder, they can keep the symptoms under control and enable you to lead a normal, fulfilling life.

The major classes of medications used for various anxiety disorders are described below.

Antidepressants—

A number of medications that were originally approved for treatment of depression have been found to be effective for anxiety disorders. If your doctor prescribes an antidepressant, you will need to take it for several weeks before symptoms start to fade. So it is important not to get discouraged and stop taking these medications before they've had a chance to work.

Some of the newest antidepressants are called **selective serotonin reuptake inhibitors**, or **SSRIs**. These medications act in the brain on a chemical messenger called serotonin. SSRIs tend to have fewer side effects than older antidepressants. People do sometimes report feeling slightly nauseated or jittery when they first start taking SSRIs, but that usually disappears with time. Some people also experience sexual dysfunction when taking some of these medications. An adjustment in dosage or a switch to another SSRI will usually correct bothersome problems. It is important to discuss side effects with your doctor so that he or she will know when there is a need for a change in medication.

Fluoxetine, sertraline, fluvoxamine, paroxetine, and citalopram are among the SSRIs commonly prescribed for panic disorder, OCD, PTSD, and social phobia. SSRIs are often used to treat people who have panic disorder in combination with OCD, social phobia, or depression. Venlafaxine, a drug closely related to the SSRIs, is useful for treating GAD. Other newer antidepressants are under study in anxiety disorders, although one, bupropion, does not appear effective for these conditions. These medications are started at a low dose and gradually increased until they reach a therapeutic level.

Similarly, antidepressant medications called **tricyclics** are started at low doses and gradually increased. Tricyclics have been around longer than SSRIs and have been more widely studied for treating anxiety disorders. For anxiety disorders other than OCD, they are as effective as the SSRIs, but many physicians and patients prefer the newer drugs because the tricyclics sometimes cause dizziness, drowsiness, dry mouth, and weight gain. When these problems persist or are bothersome, a change in dosage or a switch in medications may be needed.

Tricyclics are useful in treating people with co-occurring anxiety disorders and depression. Clomipramine, the only antidepressant in its class prescribed for OCD, and imipramine, prescribed for panic disorder and GAD, are examples of tricyclics.

Monoamine oxidase inhibitors, or MAOIs, are the oldest class of antidepressant medications. The most commonly prescribed MAOI is phenelzine, which is helpful for people with panic disorder and social phobia. Tranylcypromine and isoprocarboxazid are also used to treat anxiety disorders. People who take MAOIs are put on a restrictive diet because these medications can interact with some foods and beverages, including cheese and red wine, which contain a chemical called tyramine. MAOIs also interact with some other

medications, including SSRIs. Interactions between MAOIs and other substances can cause dangerous elevations in blood pressure or other potentially life-threatening reactions.

Anti-Anxiety Medications—

High-potency **benzodiazepines** relieve symptoms quickly and have few side effects, although drowsiness can be a problem. Because people can develop a tolerance to them—and would have to continue increasing the dosage to get the same effect—benzodiazepines are generally prescribed for short periods of time. One exception is panic disorder, for which they may be used for 6 months to a year. People who have had problems with drug or alcohol abuse are not usually good candidates for these medications because they may become dependent on them.

Some people experience withdrawal symptoms when they stop taking benzodiazepines, although reducing the dosage gradually can diminish those symptoms. In certain instances, the symptoms of anxiety can rebound after these medications are stopped. Potential problems with benzodiazepines have led some physicians to shy away from using them, or to use them in inadequate doses, even when they are of potential benefit to the patient.

Benzodiazepines include clonazepam, which is used for social phobia and GAD; alprazolam, which is helpful for panic disorder and GAD; and lorazepam, which is also useful for panic disorder.

Buspirone, a member of a class of drugs called azipirones, is a newer anti-anxiety medication that is used to treat GAD. Possible side effects include dizziness, headaches, and nausea. Unlike the benzodiazepines, buspirone must be taken consistently for at least two weeks to achieve an anti-anxiety effect.

Other Medications—

Beta-blockers, such as propranolol, are often used to treat heart conditions but have also been found to be helpful in certain anxiety

disorders, particularly in social phobia. When a feared situation, such as giving an oral presentation, can be predicted in advance, your doctor may prescribe a beta-blocker that can be taken to keep your heart from pounding, your hands from shaking, and other physical symptoms from developing.

Taking Medications

Before taking medication for an anxiety disorder:

- Ask your doctor to tell you about the effects and side effects of the drug he or she is prescribing.
 - Tell your doctor about any alternative therapies or over-the-counter medications you are using.
 - Ask your doctor when and how the medication will be stopped. Some drugs can't safely be stopped abruptly; they have to be tapered slowly under a physician's supervision.
 - Be aware that some medications are effective in anxiety disorders only as long as they are taken regularly, and symptoms may occur again when the medications are discontinued.
 - Work together with your doctor to determine the right dosage of the right medication to treat your anxiety disorder.
-

Psychotherapy

Psychotherapy involves talking with a trained mental health professional, such as a psychiatrist, psychologist, social worker, or counselor to learn how to deal with problems like anxiety disorders.

Cognitive-Behavioral and Behavioral Therapy—

Research has shown that a form of psychotherapy that is effective for several anxiety disorders, particularly panic disorder and social phobia, is **cognitive-behavioral therapy (CBT)**. It has two components. The **cognitive** component helps people change thinking patterns that keep them from overcoming their fears. For example, a person with panic disorder might be helped to see that his or her panic attacks are not really heart attacks as previously feared; the tendency to put the worst possible interpretation on physical symptoms can be overcome. Similarly, a person with social phobia might be helped to overcome the belief that others are continually watching and harshly judging him or her.

The **behavioral** component of CBT seeks to change people's reactions to anxiety-provoking situations. A key element of this component is **exposure**, in which people confront the things they fear. An example would be a treatment approach called **exposure and response prevention** for people with OCD. If the person has a fear of dirt and germs, the therapist may encourage them to dirty their hands, then go a certain period of time without washing. The therapist helps the patient to cope with the resultant anxiety. Eventually, after this exercise has been repeated a number of times, anxiety will diminish. In another sort of exposure exercise, a person with social phobia may be encouraged to spend time in feared social situations without giving in to the temptation to flee. In some cases the individual with social phobia will be asked to deliberately make what appear to be slight social blunders and observe other people's reactions; if they are not as harsh as expected, the person's social anxiety may begin to fade. For a person with PTSD, exposure might consist of recalling the traumatic event in detail, as if in slow motion, and in effect re-experiencing it in a safe situation. If this is done carefully, with support from the therapist, it may be possible to

defuse the anxiety associated with the memories. Another behavioral technique is to teach the patient deep breathing as an aid to relaxation and anxiety management.

Behavioral therapy alone, without a strong cognitive component, has long been used effectively to treat specific phobias. Here also, therapy involves exposure. The person is gradually exposed to the object or situation that is feared. At first, the exposure may be only through pictures or audiotapes. Later, if possible, the person actually confronts the feared object or situation. Often the therapist will accompany him or her to provide support and guidance.

If you undergo CBT or behavioral therapy, exposure will be carried out only when you are ready; it will be done gradually and only with your permission. You will work with the therapist to determine how much you can handle and at what pace you can proceed.

A major aim of CBT and behavioral therapy is to reduce anxiety by eliminating beliefs or behaviors that help to maintain the anxiety disorder. For example, avoidance of a feared object or situation prevents a person from learning that it is harmless. Similarly, performance of compulsive rituals in OCD gives some relief from anxiety and prevents the person from testing rational thoughts about danger, contamination, etc.

To be effective, CBT or behavioral therapy must be directed at the person's specific anxieties. An approach that is effective for a person with a specific phobia about dogs is not going to help a person with OCD who has intrusive thoughts of harming loved ones. Even for a single disorder, such as OCD, it is necessary to tailor the therapy to the person's particular concerns. CBT and behavioral therapy have no adverse side effects other than the temporary discomfort of increased anxiety, but the therapist must be well trained in the techniques of the treatment in order for it to work as

desired. During treatment, the therapist probably will assign “homework”—specific problems that the patient will need to work on between sessions.

CBT or behavioral therapy generally lasts about 12 weeks. It may be conducted in a group, provided the people in the group have sufficiently similar problems. Group therapy is particularly effective for people with social phobia. There is some evidence that, after treatment is terminated, the beneficial effects of CBT last longer than those of medications for people with panic disorder; the same may be true for OCD, PTSD, and social phobia.

Medication may be combined with psychotherapy, and for many people this is the best approach to treatment. As stated earlier, it is important to give any treatment a fair trial. And if one approach doesn't work, the odds are that another one will, so don't give up.

If you have recovered from an anxiety disorder, and at a later date it recurs, don't consider yourself a “treatment failure.” Recurrences can be treated effectively, just like an initial episode. In fact, the skills you learned in dealing with the initial episode can be helpful in coping with a setback.

Coexisting Conditions

It is common for an anxiety disorder to be accompanied by another anxiety disorder or another illness.^{4,5,6} Often people who have panic disorder or social phobia, for example, also experience the intense sadness and hopelessness associated with depression. Other conditions that a person can have along with an anxiety disorder include an eating disorder or alcohol or drug abuse. Any of these problems will need to be treated as well, ideally at the same time as the anxiety disorder.

How to Get Help for Anxiety Disorders

If you, or someone you know, has symptoms of anxiety, a visit to the family physician is usually the best place to start. A physician can help determine whether the symptoms are due to an anxiety disorder, some other medical condition, or both. Frequently, the next step in getting treatment for an anxiety disorder is referral to a mental health professional.

Among the professionals who can help are psychiatrists, psychologists, social workers, and counselors. However, it's best to look for a professional who has *specialized training* in cognitive-behavioral therapy and/or behavioral therapy, as appropriate, and who is open to the use of medications, should they be needed.

As stated earlier, psychologists, social workers, and counselors sometimes work closely with a psychiatrist or other physician, who will prescribe medications when they are required. For some people, group therapy is a helpful part of treatment.

It's important that you feel comfortable with the therapy that the mental health professional suggests. If this is not the case, seek help elsewhere. However, if you've been taking medication, it's important not to discontinue it abruptly, as stated before. Certain drugs have to be tapered off under the supervision of your physician.

Remember, though, that when you find a health care professional that you're satisfied with, the two of you are working together as a team. Together you will be able to develop a plan to treat your anxiety disorder that may involve medications, cognitive-behavioral or other talk therapy, or both, as appropriate.

You may be concerned about paying for treatment for an anxiety disorder. If you belong to a Health Maintenance Organization (HMO) or have some other kind of health insurance,

the costs of your treatment may be fully or partially covered. There are also public mental health centers that charge 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.

Strategies to Make Treatment More Effective

Many people with anxiety disorders benefit from joining a self-help group and sharing their problems and achievements with others. Talking with trusted friends or a trusted member of the clergy can also be very helpful, although not a substitute for mental health care. Participating in an Internet chat room may also be of value in sharing concerns and decreasing a sense of isolation, but any advice received should be viewed with caution.

The family is of great importance in the recovery of a person with an anxiety disorder. Ideally, the family should be supportive without helping to perpetuate the person's symptoms. If the family tends to trivialize the disorder or demand improvement without treatment, the affected person will suffer. You may wish to show this booklet to your family and enlist their help as educated allies in your fight against your anxiety disorder.

Stress management techniques and meditation may help you to calm yourself and enhance the effects of therapy, although there is as yet no scientific evidence to support the value of these "wellness" approaches to recovery from anxiety disorders. There is preliminary evidence that aerobic exercise may be of value, and it is known that caffeine, illicit drugs, and even some over-the-counter cold medications can aggravate the symptoms of an anxiety

disorder. Check with your physician or pharmacist before taking any additional medicines.

For More Information

National Institute of Mental Health (NIMH)
Office of Communications and Public Liaison
6001 Executive Blvd., Room 8184, MSC 9663
Bethesda, MD 20892-9663

Toll-free information services:

Anxiety Disorders: 1-88-88-ANXIETY

Depression: 1-800-421-4211

General inquiries: (301) 443-4513

TTY: (301) 443-8431

E-mail: nimhinfo@nih.gov; Web site: www.nimh.nih.gov

Anxiety Disorders Association of America
8730 Georgia Ave, Suite 600
Silver Spring, MD 20910
(240) 485-1001
www.adaa.org

Freedom from Fear
308 Seaview Avenue
Staten Island, NY 10305
(718) 351-1717
www.freedomfromfear.com

Obsessive Compulsive (OC) Foundation
337 Notch Hill Road
North Branford, CT 06471
(203) 315-2190
www.ocfoundation.org

CE-CREDIT.com "Your Continuing Education Resource"

American Psychiatric Association
1400 K Street, NW
Washington, DC 20005
(888) 357-7924
www.psych.org

American Psychological Association
750 1st Street, NE
Washington, DC 20002-4242
(202) 336-5510 / (800) 374-2721
www.apa.org

Association for Advancement of Behavior Therapy
305 7th Avenue, 16th floor
New York, NY 10001-6008
(212) 647-1890
www.aabt.org

National Alliance for the Mentally Ill
Colonial Place Three
2107 Wilson Blvd., Suite 300
Arlington, VA 22201
1-800-950-NAMI (-6264) / (703) 524-7600
www.nami.org

National Mental Health Association
2001 N. Beauregard St, 12th floor
Alexandria, VA 22311
1-800-969-NMHA (-6642) / (703) 684-7722
www.nmha.org

National Center for PTSD
U.S. Department of Veterans Affairs
116D VA Medical and Regional Office Center
215 N. Main St.
White River Junction, VT 05009
(802) 296-6300
E-mail: ncptsd@ncptsd.org; Web site: www.ncptsd.org

For Information About Clinical Trials

NIMH Clinical Trials Web Page
www.nimh.nih.gov/studies/index.cfm

National Library of Medicine
Clinical Trials Database
www.clinicaltrials.gov

References

¹Narrow WE, Rae DS, Regier DA. NIMH epidemiology note: prevalence of anxiety disorders. One-year prevalence best estimates calculated from ECA and NCS data. Population estimates based on U.S. Census estimated residential population age 18 to 54 on July 1, 1998. Unpublished.

²Robins LN, Regier DA, eds. *Psychiatric disorders in America: the Epidemiologic Catchment Area Study*. New York: The Free Press, 1991.

³The NIMH Genetics Workgroup. *Genetics and mental disorders*. NIH Publication No. 98-4268. Rockville, MD: National Institute of Mental Health, 1998.

CE-CREDIT.com "Your Continuing Education Resource"

⁴Regier DA, Rae DS, Narrow WE, et al. Prevalence of anxiety disorders and their comorbidity with mood and addictive disorders. *British Journal of Psychiatry Supplement*, 1998; (34): 24-8.

⁵Kushner MG, Sher KJ, Beitman BD. The relation between alcohol problems and the anxiety disorders. *American Journal of Psychiatry*, 1990; 147(6): 685-95.

⁶Wonderlich SA, Mitchell JE. Eating disorders and comorbidity: empirical, conceptual, and clinical implications. *Psychopharmacology Bulletin*, 1997; 33(3): 381-90.

⁷Davidson JR. Trauma: the impact of post-traumatic stress disorder. *Journal of Psychopharmacology*, 2000; 14(2 Suppl 1): S5-S12.

⁸Margolin G, Gordis EB. The effects of family and community violence on children. *Annual Review of Psychology*, 2000; 51: 445-79.

⁹Yehuda R. Biological factors associated with susceptibility to posttraumatic stress disorder. *Canadian Journal of Psychiatry*, 1999; 44(1): 34-9.

¹⁰Bourdon KH, Boyd JH, Rae DS, et al. Gender differences in phobias: results of the ECA community survey. *Journal of Anxiety Disorders*, 1988; 2: 227-41.

¹¹Kendler KS, Walters EE, Truett KR, et al. A twin-family study of self-report symptoms of panic-phobia and somatization. *Behavior Genetics*, 1995; 25(6): 499-515.

¹²Boyd JH, Rae DS, Thompson JW, et al. Phobia: prevalence and risk factors. *Social Psychiatry and Psychiatric Epidemiology*, 1990; 25(6): 314-23.

- ¹³Kendler KS, Neale MC, Kessler RC, et al. Generalized anxiety disorder in women. A population-based twin study. *Archives of General Psychiatry*, 1992; 49(4): 267-72.
- ¹⁴LeDoux J. Fear and the brain: where have we been, and where are we going? *Biological Psychiatry*, 1998; 44(12): 1229-38.
- ¹⁵Bremner JD, Randall P, Scott TM, et al. MRI-based measurement of hippocampal volume in combat-related posttraumatic stress disorder. *American Journal of Psychiatry*, 1995; 152: 973-81.
- ¹⁶Stein MB, Hanna C, Koverola C, et al. Structural brain changes in PTSD: does trauma alter neuroanatomy? In: Yehuda R, McFarlane AC, eds. *Psychobiology of posttraumatic stress disorder. Annals of the New York Academy of Sciences*, 821. New York: The New York Academy of Sciences, 1997.
- ¹⁷Rauch SL, Savage CR. Neuroimaging and neuropsychology of the striatum. Bridging basic science and clinical practice. *Psychiatric Clinics of North America*, 1997; 20(4): 741-68.
- ¹⁸Gould E, Reeves AJ, Fallah M, et al. Hippocampal neurogenesis in adult Old World primates. *Proceedings of the National Academy of Sciences USA*, 1999, 96(9): 5263-7.
- ¹⁹Hyman SE, Rudorfer MV. Anxiety disorders. In: Dale DC, Federman DD, eds. *Scientific American® Medicine. Volume 3*. New York: Healthon/WebMD Corp., 2000, Sect. 13, Subsect. VIII.

This brochure is a revision by Mary Lynn Hendrix of an earlier version written by Marilyn Dickey.

Scientific information and/or review for this revision were provided by Steven E. Hyman, M.D., Richard Nakamura, Ph.D., Matthew Rudorfer, M.D., Linda Street, Ph.D., and Elaine Baldwin, all of NIMH, and Una McCann, M.D., now of The Johns Hopkins University. Editorial assistance was provided by Clarissa Wittenberg, Margaret Strock, and Melissa Spearing of NIMH.

All material in this publication is in the public domain and may be copied or reproduced without permission of the Institute. Citation of the source is appreciated.



This is the electronic version of a National Institute of Mental Health (NIMH) publication, available from <http://www.nimh.nih.gov/publicat/index.cfm>. To order a print copy, call the NIMH Information Center at 301-443-4513 or 1-866-615-6464 (toll-free). Visit the NIMH Web site (<http://www.nimh.nih.gov>) for information that supplements this publication.

To learn more about NIMH programs and publications, contact the following:

Web address:

<http://www.nimh.nih.gov>

E-mail:

nimhinfo@nih.gov

Phone numbers:

301-443-4513 (local)

1-866-615-6464 (toll-free)

301-443-3431 (TTY)

Fax numbers:

301-443-4279

301-443-5158 (FAX 4U)

Street address:

National Institute of Mental Health

Office of Communications

Room 8184, MSC 9663

6001 Executive Boulevard

Bethesda, Maryland 20892-9663 USA

This information is in the public domain and can be copied or reproduced without permission from NIMH. To reference this material, we suggest the following format:

National Institute of Mental Health. Title. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services; Year of Publication/Printing [Date of Update/Revision; Date of Citation]. Extent. (NIH Publication No XXX XXXX). Availability.

A specific example is:

National Institute of Mental Health. Childhood-Onset Schizophrenia: An Update from the National Institute of Mental Health. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, US Department of Health and Human Services; 2003 [cited 2004 February 24]. (NIH Publication Number: NIH 5124). 4 pages. Available from: <http://www.nimh.nih.gov/publicat/schizkids.cfm>