The Brain and Anxiety

The brain responds to anxiety much as it responds to fear, by sending out two sets of signals to different parts of the brain.

The first goes to the cerebral cortex, the cognitive part of the brain, which processes the details and tries to understand the perceived threat. The other set of signals goes directly to the amygdala, a small almond-shaped structure that is sometimes referred to as the emotional control center of the brain. The amygdala sets the fear response in motion, readying the body for quick action long before the cognitive part of the brain comprehends just what is wrong. This signals the heartbeat to increase and diverts blood from the digestive system to the muscles for quick action, even when no action is needed. Stress hormones and glucose flood the blood stream. Anxiety disorders develop when the amygdala switches this stress response pattern onto the brain, pairing it with specific people, events, or other stimuli.

The neurotransmitter serotonin seems to play an important role in counteracting the anxiety/stress response in the brain. Many of the current medications for anxiety disorders make more serotonin, a mood regulator, available to the brain. Other treatment approaches are examining drugs that affect different neurotransmitters and brain chemicals, such as GABA, gamma-amino Butyric acid, and Substance P. A new research tool, magnetic resonance spectroscopy, has been used by scientists to measure brain levels of GABA and other substances.

Medication Protocol

There is some controversy about when and whether to begin medication with anxious children. Some therapists prefer to try a form of psychotherapy first and move to medication if that does not reduce the child’s symptoms sufficiently. Others believe that it is preferable to begin with medication to reduce anxiety so that the child can participate in and derive the maximum benefit from psychotherapy. In any case, before medication is prescribed, the therapist should arrive at a diagnosis through a full evaluation of the child’s functioning, perhaps including use of one or more of the available anxiety scales; evaluate the severity of the symptoms; and discuss the treatment plan with the child and the parents. Once the child has begun to take medication, the therapist should monitor the child’s progress on a regular basis.

Defining the Problem

We all experience anxiety at some time during our lives; it is normal and even healthy, since it fosters alertness and motivates us to take action. For some people, however, anxiety over everyday activities and events becomes a constant and pervasive condition that impedes their ability to live full lives. The American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, describes persons with anxiety disorders as those who experience intense worry, fear, or uneasiness to a degree that interferes with their everyday functioning over a long period of time. The category of anxiety disorders comprises several different types of disorders, including generalized anxiety disorder, separation anxiety, social phobia, obsessive-compulsive disorder, panic disorder, and posttraumatic stress disorder. This chart will specifically cover generalized anxiety disorder, or GAD.

Typically, children or adolescents who have GAD will experience excessive worry and fear about a number of concerns for a period at least six months, along with an inability to control the worry. Some of these concerns may relate to real life (e.g., school, social activities, events in the outside world), and some may be unlikely or unrealistic (e.g., being hit by a meteor). This free-floating worry may not be linked to a specific aspect of life; children may simply feel anxious all the time for no apparent reason. The constant worrying impairs children’s ability to function in day-to-day life and causes them to need constant reassurance and support from those around them. Such children are often perfectionists, dissatisfied even when their work is perfectly satisfactory to the outside observer. They will also display at least one of these symptoms: feeling restless or tense; becoming tired easily; having difficulty sleeping; having trouble concentrating; being irritable; or feeling muscle tension.

Medication and Generalized Anxiety Disorder

A number of different types of medications have been found to be effective in treating GAD. Selective serotonin reuptake inhibitors (SSRIs), which effectively increase the amount of serotonin in the brain, are usually the drug of choice. Among the SSRIs that are widely used are fluoxetine (Prozac), sertraline (Zoloft), and paroxetine (Paxil). Tricyclic antidepressants, including imipramine (known as Tofranil), and a group of drugs called benzodiazepines (e.g., Diazepam, widely known as Valium), are among other medications that have been used.

In October 2004, the Food and Drug Administration warned that use of antidepressant drugs, including SSRIs, may increase the risk of suicidal ideation and suicidal behavior in a small number of children and adolescents. The risk appears to be greatest in the first few weeks of usage, before the medication has become fully effective. It is imperative that parents and therapists be alert to any change in behavior that might suggest that the child is at risk of suicidal action, such as agitation, restlessness, or increased irritability; it is important to ask directly about thoughts about suicide.

Resources for Helping Children and Teens with Generalized Anxiety Disorder

Books for Teens

Coping with Anxiety and Panic Attacks, Jodi Lee and Carolyn Simpson, Rosen Publishing Group, 1997
The Anxiety Workbook for Teens, Lisa M. Schab, InstantHelpPublications, 2005
Books for Younger Children

Let’s Talk about Feeling Nervous, Susan Kent, PowerKidsPress, 2003

Books for Parents

Your Child’s Emotional, Behavioral, and Cognitive Development from Birth through Preadolescence, AACAP and David Pruitt, HarperCollins, 1999
Adolescents’ Emotional, Behavioral, and Cognitive Development from Early Adolescence Through the Teen Years, AACAP, HarperCollins, 1999

Books for Professionals

Parentsshouldnotridiculetheirchild'sfears;theconcernsarerealistictothechildwhofeels them. Both cognitive and emotional situations are usually time-limited therapies that seek to ameliorate symptoms by modifying thought processes and behaviors. Deep muscle relaxation techniques, self-hypnosis, and biofeedback to reduce the physical symptoms of anxiety, such as palpitations and muscle tightness, can also help. Active parent involvement is important in help- ing children with GAD. This can include family therapy aimed at discovering what parents may be inadvertently doing that reinforces the child’s anxiety and looking for intrafamily behavior patterns that the child is copying; or it may support the parents as they deal with their child’s problem and give them techniques for helping their child cope better. Various organizations offer support groups that enable parents to exchange experiences and ideas.

GADoftenfirstappearsinchildrenaroundagesixorseven,astheybeginschool.Childrenwhoworryexcessivelyabouttheirs choolperformancearoundthistimemaybealsoatriskfordevelopingGADlateron. Parentscanreassuretheirchildrenthattheyaredoingeverythingpossibletokeepthemsafe.Ifdifficultiesathomearecon- tributingtochildren’sanxiety,parentscantalktothem,quietlyandopenly,aboutthesituation. Parentscanuserole-playingtohelppreparechildrenforsituationstheywillface;sometimesithelpsforchildrentodrawpi cturesoftheirfears ortowriteaboutthem. Encouragementandrecognitionforevensmallachievementsandanunderstandingthatanxietywillincreaseduringstressfultime s,suchas periodsoftransition(afamilymove,anewschool),canhelp. Parentsshouldbeawarethatchildrenoftensaytheyareafraidofparticularthingstoavoidhavingtonametherealsourceso ftheirfear. Parentsmightconsiderwhethertheirchildren,especiallyyoungerchildren,wouldbebetteroffwithoutviolentorfrighteningtelevisionshowsor videogames. Childrencannotalwaysdistinguishrealityfromfictionandmayfearthattheytoowillbevictimsofanattack. GADisoftenaccompaniedbysleepdisturbances. Parentscanhelpalleviatethisproblembycurbingchildren’sintakeofcaffein e,whichis ... dietpillsaswell. Childrenoftenfindstructurereassuring,sosettinguparoutineforthemtofolloweverydaycanalsohelpthemsleepbetter. Parentsshouldbeawarethatteenssometimesabusedrugsoralcoholasawaytoself-medicateagainstpervasiveanxiety.Ifpar- entssuspect thisbehavior,itisimperativethattheygetprofessionalhelpfortheeen. RefusaltogotoschoolisacommonsymptomamongchildrenwithGAD.Theymaydevelop physicalsymptoms,suchastomachaches,asawaytoavoidasettingthattheyperceiveas anxiety-producing. Once in school, they may display a range of behaviors that teachers need to be aware of. Although the common perception is that children with GAD are quiet and conforming, some children try to deal with their feelings by being disruptive and demanding attention. Such behavior is disturbing and frustrating to both teachers and parents, who may not understand that it is an attempt to deal with upsetting feelings. Anxious children who act out in this way usually feel very guilty about it and need quiet reassurance that they are still valued by the important adults in their lives. Children with GAD often use avoidance behaviors, such as procrastination, to try to deal with their feelings. They may also seem distracted or inattentive. Teachers can be helpful by checking in with students periodically to ensure that they are keeping up with assignments. Setting intermediate deadlines that break large assignments into more manageable pieces can also help. While excusing a child with GAD from classroom responsibilities is counterproductive, a bit of flexibility in imposing demands can help the child who is feeling overwhelmed. Teachers should communicate their concerns about a child’s school performance to both parents and the school counselor; teachers and parents should be in agreement as to how they intend to structure work assignments and modify the student’s workload to reduce anxiety. For example, parents can check whether the student is meeting assignment deadlines, completing homework, and so on. Teachers can also help parents modify any unrealistic expectations they may have for their child’s performance. Children with GAD do better in structured settings where they know what to expect; they consequently do better in classroom settings that are predictable and consistent. If there is to be a major change in the classroom routine, teachers can help by alerting the student and discreetly discussing the change in advance. Teachers should avoid singling out anxious students, whether to lead a group activity, perform work on the board, or be made conspicuous in other ways. Students with GAD usually prefer not to be the focus of attention.

Don’t • Blit little children’s concerns or make fun of them. To the children, they’re real and not at all funny. • Set unrealistic expectations for children’s behavior or achievements. • Compare children with others or point out their shortcomings. • Focus on children’s anxiety so much that you fail to encourage and support normal, everyday activities. • Reinforce the idea that there is something to be afraid of by giving in to children’s fears. For example, don’t go out of your way to avoid a dog that the child is afraid of; instead, offer a few gentle words of support as you approach the animal. • Tell children to relax or be calm. They would if they could.

DO • Talk to children about their feelings. Getting their emotions out in the open can help children feel more in control. • Encourage children to learn to think positively and to counter persistent negative thoughts with more hopeful thoughts. • Help children break down overwhelmingly large tasks into smaller, more achievable ones. • Point out facts that contradict or offer alternative explanations for things that children worry about. • Encourage children to accept less than perfect performances in school and at home. • Teach children to repeat positive, self-encouraging statements to themselves (e.g., “I can do this.”) to counter their fear.

What Teachers Need to Know
• Refusal to go to school is a common symptom among children with GAD. They may develop physical symptoms, such as stomachaches, as a way to avoid setting that they perceive as anxiety-producing. Once in school, they may display a range of behaviors that teachers need to be aware of. • Although the common perception is that children with GAD are quiet and conforming, some children try to deal with their feelings by being disruptive and demanding attention. Such behavior is disturbing and frustrating to both teachers and parents, who may not understand that it is an attempt to deal with upsetting feelings. Anxious children who act out in this way usually feel very guilty about it and need quiet reassurance that they are still valued by the important adults in their lives.

What Parents Need to Know
• Parents should not ridicule their child’s fears; the concerns are realistic to the child who feels them.
• Parents should make an effort to understand their child’s disorder. They can do this by reading books or visiting Web sites, talking to their child’s doctor, or attending information sessions and support groups. Names and addresses of support groups are available from the Anxiety Disorders Association of America (http://www.adaa.org/GettingHelp/SupportGroups.asp) and many other sources.
• GAD often first appears in children around age six or seven, as they begin school. Children who worry excessively about their school performance around this time may be also at risk for developing GAD later on. • Parents can reassure their children that they are doing everything possible to keep them safe. If difficulties at home are contributing to children’s anxiety, parents can talk to them, quietly and openly, about the situation. • Parents can use role-playing to help prepare children for situations they will face; sometimes it helps for children to draw pictures of their fears or to write about them.
• Encouragement and recognition for even small achievements and an understanding that anxiety will increase during stressful times, such as periods of transition (a family move, a new school), can help.
• Parents should be aware that children often say they are afraid of particular things to avoid having to name the real sources of their fear. • Parents might consider whether their children, especially younger children, would be better off without violent or frightening television shows or video games. Children cannot always distinguish reality from fiction and may fear that they too will be victims of an attack.
• GAD is often accompanied by sleep disturbances. Parents can help alleviate this problem by curbing children’s intake of caffeine, which is found not only in coffee but in cola drinks, some cold medications, and some diet pills as well. Children often find structure reassuring, so setting up a routine for them to follow every day can also help them sleep better.
• Parents should be aware that teens sometimes abuse drugs or alcohol as a way to self-medicate against pervasive anxiety. If parents suspect this behavior, it is imperative that they get professional help for their teen.

Fast Facts
• In children, GAD most often occurs in mid-childhood and among teens. It frequently occurs in conjunction with mood disorders, especially depression, and with other anxiety disorders, such as obsessive-compulsive disorder.
• Certain fears and anxieties that typically develop in children at specific ages are normal and will probably resolve themselves. For example, children ages 4-11 often are afraid of monsters and ghosts; somewhat older children, ages 6-11, worry more about school achievement and social acceptance. Teens often worry about whether they will fit in socially, whether they will have friends, and whether they will succeed academically. A child who has such fears is showing developmentally normal behavior that does not indicate an anxiety disorder.
• For the diagnosis to be GAD, the child must experience intense, generalized anxiety so severe that it interferes significantly with everyday functioning; there may also be physical signs of anxiety, such as palpitations or headaches.

The Dos and Don’ts of Communicating
DON’T
• Talk to children about their feelings. Getting their emotions out in the open can help children feel more in control.
• Encourage children to learn to think positively and to counter persistent negative thoughts with more hopeful thoughts.
• Help children break down tremendously large tasks into smaller, more achievable ones.
• Point out facts that contradict or offer alternative explanations for things that children worry about.
• Encourage children to accept less than perfect performances in school and at home.
• Teach children to repeat positive, self-encouraging statements to themselves (e.g., "I can do this.") to counter their fear.

DO
• Talk to children about their feelings. Getting their emotions out in the open can help children feel more in control.
• Encourage children to learn to think positively and to counter persistent negative thoughts with more hopeful thoughts.
• Help children break down tremendously large tasks into smaller, more achievable ones.
• Point out facts that contradict or offer alternative explanations for things that children worry about.
• Encourage children to accept less than perfect performances in school and at home.
• Teach children to repeat positive, self-encouraging statements to themselves (e.g., "I can do this.") to counter their fear.

Fast Facts
• In children, GAD most often occurs in mid-childhood and among teens. It frequently occurs in conjunction with mood disorders, especially depression, and with other anxiety disorders, such as obsessive-compulsive disorder.
• Certain fears and anxieties that typically develop in children at specific ages are normal and will probably resolve themselves. For example, children ages 4-11 often are afraid of monsters and ghosts; somewhat older children, ages 6-11, worry more about school achievement and social acceptance. Teens often worry about whether they will fit in socially, whether they will have friends, and whether they will succeed academically. A child who has such fears is showing developmentally normal behavior that does not indicate an anxiety disorder.
• For the diagnosis to be GAD, the child must experience intense, generalized anxiety so severe that it interferes significantly with everyday functioning; there may also be physical signs of anxiety, such as palpitations or headaches.

The Dos and Don’ts of Communicating
DON’T
• Blittle children’s concerns or make fun of them. To the children, they’re real and not at all funny.
• Set unrealistic expectations for children’s behavior or achievements.
• Compare children with others or point out their shortcomings.
• Focus on children’s anxiety so much that you fail to encourage and support normal, everyday activities.
• Reinforce the idea that there is something to be afraid of by giving in to children’s fears. For example, don’t go out of your way to avoid a dog that the child is afraid of; instead, offer a few gentle words of support as you approach the animal.
• Tell children to relax or be calm. They would if they could.

DO
• Talk to children about their feelings. Getting their emotions out in the open can help children feel more in control.
• Encourage children to learn to think positively and to counter persistent negative thoughts with more hopeful thoughts.
• Help children break down tremendously large tasks into smaller, more achievable ones.
• Point out facts that contradict or offer alternative explanations for things that children worry about.
• Encourage children to accept less than perfect performances in school and at home.
• Teach children to repeat positive, self-encouraging statements to themselves (e.g., "I can do this.") to counter their fear.