

# Generalized Anxiety Disorder in Children

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**Generalized anxiety disorder (GAD)** is associated with persistent, excessive, and unrealistic worry that is not focused on a specific object or situation.

Children with GAD **worry more often and more intensely** than other children in the same circumstances. They may worry excessively about their performance and competence at school or in sporting events, about personal safety and the safety of family members, or about natural disasters and future events.

The focus of worry may shift, but **the inability to control the worry persists**. Because children with GAD have a hard time "turning off" the worrying, their ability to concentrate, process information, and engage successfully in various activities may be impaired. In addition, problems with insecurity that often result in frequent seeking of reassurance may interfere with their personal growth and social relationships.

Further, children with GAD **often seem overly conforming, perfectionistic, and self-critical**. They may insist on redoing even fairly insignificant tasks several times to get them "just right." This excessive structuring of one's life is used as a defense against the generalized anxiety related to the concern about the individual's overall and specific performance.

## Complications

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Potential complications of GAD include the following:

- Coexisting depression, or obsessive-compulsive disorder
- School truancy and withdrawal from other age-appropriate activities
- Strained family relationships when the child's anxiety contributes to irritability, noncompliance, demanding behavior, and/or chronic reassurance seeking
- "Self-medication" leading to substance abuse by adolescents
- Parents' inability to help in the child's treatment or to model adaptive coping/anxiety management because of their own untreated anxiety (or other psychiatric condition)

## Causes of GAD

Multiple factors are thought to contribute to the development of GAD and to the broad category of anxiety disorders. Biologic, familial, and environmental factors are considered important. Behavioral inhibition, an early temperament associated with aversion to novel situations, has been found to be associated with later development of anxiety disorders.

Research has demonstrated an association between parents with anxiety disorders and children with behavioral inhibition. The tendency of anxiety to occur in families also has been established. Anxious parents may genetically predispose their children to anxiety, model anxious behavior, and behave and/or parent in ways that encourage and maintain anxious behavior in the child.

Environmental factors, such as other parental emotional problems, disrupted attachment, stressful life events, and traumatic experiences, also may place the child at risk for developing GAD.

The role of the family in understanding child anxiety is important, particularly in situations in which the needs of younger children who are developmentally limited in their ability to benefit from direct individual intervention are considered.

## Epidemiology

The prevalence of generalized anxiety disorder (GAD) in children and adolescents ranges from 3 to 5%.

In childhood, the sex distribution tends to be equal for females and males. In adolescence, a female-to-male ratio of 6:1 has been suggested; however, epidemiologic study results vary.

The age of onset varies, but GAD is **more common in adolescents and older children** than in young children. In addition, affected adolescents and older children tend to have more symptoms than do affected younger children.

## Prognosis

The prognosis is thought to be relatively good when treatment is implemented early and effectively. However, 35% of children one day develop a new psychiatric disorder in the same interval.

Children with GAD are also likely to meet criteria for other anxiety disorders and, to a lesser degree, for a depressive or disruptive behavior disorder.

Anxiety is a serious problem in children and adolescents. We now understand that, in addition to deleteriously affecting the child's social and academic functioning, anxiety can cause serious long-term consequences. Many children with one of the anxiety disorders suffer intermittently for the rest of their lives. Other serious psychiatric conditions, such as major depressive disorder and substance misuse, are closely associated with pediatric anxiety if not treated in a timely and effective manner.

GAD also may co-occur with conditions associated with stress, such as irritable bowel syndrome and headaches. The long-term physiologic effects of stress are more likely to cause non-psychiatric gastrointestinal, cardiovascular, or other consequences later in life.

## History

Children with GAD may experience somatic symptoms such as shortness of breath, rapid heartbeat, sweating, nausea or diarrhea, frequent urination, cold and clammy hands, dry mouth, trouble swallowing, or a "lump in the throat." Problems with muscle tension also can occur, including trembling, twitching, a shaky feeling, and muscle soreness or aches. Patients often complain of stomachaches and headaches. Despite these symptoms, few findings are noted on a doctor's physical examination.

An evaluation for GAD should include data gathering through diagnostic interviews with the child and parent, direct observation, and questionnaires. Family history of anxiety and mood disorders, the child's early temperament and adjustment to school, and life stressors or disruptions are among important factors to consider in GAD.

The *DSM-IV* guidelines require the following to satisfy a diagnosis of GAD:

- Excessive anxiety and worry, occurring more days than not for at least 6 months, about a number of events or activities
- Difficulty controlling the worry
- One of the following symptoms in association with the worry: restlessness, fatigue, poor concentration, irritability, muscle tension, or sleep disturbance
- Focus of worry that is not confined to features of another Axis I diagnosis, eg, worry about having a panic attack, social embarrassment, or separation from caregiver
- Clinically significant distress or impairment experienced in social, school, or other important areas
- Disturbance that is not due to a substance or general medical condition and that does not occur exclusively during a mood disorder, a psychotic disorder, or in association with a pervasive developmental disorder

Common cognitive distortions in childhood GAD include:

- Overestimation of the likelihood of dangerous events and catastrophic conclusions about the outcome (e.g. "If the sky gets dark, there will be a tornado, we'll lose our house, and I'll never be with my parents again")
- High perception of threat and low perception of control (e.g. "I know if a dog comes near me, it will bite me.")
- Overgeneralization of small errors to complete failure and subsequent loss of self-esteem ("If I make an error on this worksheet, that proves I'm stupid.")

## Diagnostic Considerations

Substance-induced anxiety disorder, anxiety disorder due to a general medical condition, an adjustment disorder, or psychotic disorder will also be considered by the physician.

Distinguishing anxiety from developmentally appropriate fears is important. Throughout childhood and early adolescence, children experience various transitory fears occurring concurrently with their ability to recognize and understand potential dangers in their environment. A progression occurs from immediate, tangible fears (eg, separation from caregiver, strangers) to anticipatory, less tangible fears (eg, bad dreams, getting hurt, school failure). Children are expected to overcome and resolve these fears as part of the developmental process.

Distinguishing anxiety from realistic worry is also imperative. Worry can be thought of as a feeling of unease or concern about something. It represents an internal representation of a realistic threat. For example, a child with a learning disability may worry about an upcoming examination, or a child with a medical condition may worry about an upcoming surgery. This kind of worry is expected to be specific to a situation, and it is expected to subside once the situation has passed. Thus, the temporal requirement for GAD diagnosis (6 months) is not met.

Other conditions your child's physician will consider in the evaluation for GAD include the following:

- Oppositional defiant disorder
- Peptic ulcer disease
- Avoidant personality
- Hypochondriasis
- Social phobia and selective mutism
- Specific phobia
- Trichotillomania
- Asthma
- Depression
- Dysthymic disorder
- Obstructive sleep apnea syndrome
- Somatization
- Thyroid Disease
- ADHD
- Eating Disorder
- Child Abuse and Neglect
- Obsessive-Compulsive Disorder

## Behavioral and Cognitive-Behavioral Therapy

**Weekly outpatient therapy for 3-4 months** with less frequent follow-up booster sessions may be sufficient.

A cognitive-behavioral approach is likely to be most beneficial. Treatment should consist of individual sessions with family involvement to support the treatment process.

Behavioral and cognitive-behavioral therapies are among the most researched and promising treatments for childhood anxieties. Behavioral techniques (eg, relaxation training, modeling, imagining and visualizing, in vivo exposure) and cognitive techniques (eg, identifying and modifying self-talk, challenging irrational beliefs) often are used in combination with psychoeducation and contingency maintenance. Typically, children are taught to recognize early physiologic and cognitive signs of anxiety and to develop and implement coping techniques.

The importance of parental participation in the treatment process recently has received attention. Adding a family component focused on techniques such as contingency management, communication, and

problem solving to individual child cognitive-behavioral therapy has produced favorable long-term treatment benefits in several clinical trials.

Several cognitive-behavioral therapy books, such as *Helping Your Anxious Child: A Step-By-Step Guide for Parents*, by Sue Spence, and *Keys to Parenting Your Anxious Child (Barron's Parenting Keys)*, by Katharina Manassis, MD, are readily available for parents and their children to work with at home and at school.

## **Exercise, Caffeine Avoidance, Preoperative Relaxation Therapy**

Regular exercise promotes a sense of well-being that is particularly beneficial in individuals with anxiety and mood disorders.

Limiting caffeine intake is appropriate.

Prior to a surgical procedure, children with an anxiety disorder are particularly likely to benefit from age-appropriate preparation, including relaxation practice for elective procedures.

## **Deterrence and Prevention**

The following measures may aid in the prevention of GAD in children:

- Consistent, stable, supportive home environment
- Parenting practices that promote self-confidence, self-esteem, and effective coping skills
- Minimal number of psychosocial stressors or traumatic events
- Adaptive problem solving and coping skills modeled by parents and other significant people in the child's life
- Psychoeducation
- Family-based interventions

## **Referrals**

Early referral to a psychologist, psychiatrist, or behavioral-developmental pediatrician for evaluation and treatment can alleviate symptoms and stress that may be the early manifestations of a more severe disorder.

Family therapy referral also may be indicated, but that may be best managed by the mental health professional or the developmental and behavioral pediatrician who performs the consultative evaluation.

## **Medication Summary**

Medication is ideally adjunctive (i.e. not the first therapy) to psychological treatment of generalized anxiety disorder (GAD). Unfortunately, the lack of experienced and qualified therapists in a community may preclude an adequate trial of cognitive-behavioral therapy.

Selective serotonin reuptake inhibitor (SSRI) antidepressants are currently first-line medications in the pharmacotherapy of anxiety disorders in children. These antidepressants are powerful anxiolytics with a broader spectrum that may improve comorbid affective disorders and symptoms of anxiety.

Benzodiazepines have a relatively favorable adverse effect profile but are generally not chosen as first-line treatments for anxiety in children and adolescents. These agents may cause behavioral disinhibition in young children. They also have street value as drugs of abuse.

Antihistamines and antipsychotics are not recommended for treatment of childhood-onset anxiety disorders.