Anxiety can be a normal reaction to stress. It can help us deal with a tense situation, study harder for an exam, or keep focused on an important speech. In general, it can help us cope. But when anxiety becomes an excessive, irrational dread of everyday situations, it has become a disabling condition. Examples of anxiety disorders are obsessive compulsive disorder, post-traumatic stress disorder, social phobia, specific phobia, and generalized anxiety disorder. Symptoms of many of these disorders begin in childhood or adolescence.

**YESTERDAY**

- The brain areas and circuitries underlying symptoms of anxiety disorders were unknown.
- No targeted psychotherapies for anxiety disorders existed.
- Clinicians did not have strong information to help them make treatment decisions between a specific psychotherapy, medication alone, or a combination of medication and psychotherapy.

**TODAY**

- A large, national survey of adolescent mental health reported that about 8 percent of teens ages 13–18 have an anxiety disorder, with symptoms commonly emerging around age 6. However, of these teens, only 18 percent received mental health care.
- Imaging studies show that children with anxiety disorders have atypical activity in specific brain areas, compared with other people. For example:
  - In one, very small study, anxious adolescents exposed to an anxiety-provoking situation showed heightened activity in brain structures associated with fear processing and emotion regulation, when compared with normal controls.
  - Another small study found that youth with generalized anxiety disorder had unchecked activity in the brain’s fear center, when looking at angry faces so quickly that they are hardly aware of seeing them.
  - Brain scans of teens sizing each other up reveal an emotion circuit activating more in girls as they grow older, but not in boys. This finding highlights how emotion circuitry diverges in the male and female brain during a developmental stage in which girls are at increased risk for developing mood and anxiety disorders.
- The Child/Adolescent Anxiety Multimodal Study (CAMS), in addition to other studies on treating childhood anxiety disorders, found that high-quality cognitive behavioral therapy (CBT), given with or without medication, can effectively treat anxiety disorders in children. One small study even found that a behavioral therapy designed to treat social phobia in children was more effective than an antidepressant medication.
Novel approaches to treatment and prevention that are currently being studied in adults with anxiety disorders may someday lead to advances in treatment for children. Examples of such approaches include:

- Identifying predictive markers, such as hormone levels and genes, for determining people at risk for developing PTSD after a traumatic event.
- Developing Internet-based cognitive and behavioral therapies to make interventions more widely available.

Imaging, molecular biology, and genetics research are pointing the way to brain mechanisms involved in anxiety disorders. Features of these mechanisms are potential biomarkers that could identify people at risk—a key to early intervention—or help clinicians to determine which treatments are likely to work for different patients.

Research to identify brain mechanisms involved in anxiety disorders also holds the potential to reveal targets for better medications with fewer side effects.