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Author: Liza Bonin, PhD
Section Editor: David Brent, MD
Deputy Editor: David Solomon, MD

Contributor Disclosures

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DEPRESSION OVERVIEW

People often think of depression as an adult problem, not something that affects children, but children – especially adolescents – commonly suffer from depression. The condition interferes with their ability to perform well in school and develop and maintain relationships, and can have lasting repercussions, especially if it goes unnoticed. What's more, in children and adolescents, depression is often accompanied by behavioral problems, substance abuse, and/or other mental disorders. Unfortunately, in children and adolescents, depression can manifest differently than it does in adults, so parents are not always able to recognize the problem.

Depression is a treatable condition. Psychotherapy (counseling), medications, and other measures can alleviate symptoms and help children and adolescent succeed in school, develop and maintain healthy relationships, and feel more self-confident. This topic review discusses the causes, risk factors, signs and symptoms, and diagnosis of depression in children and adolescents. A separate topic review discusses the treatment of depression in children and adolescents. (See "Patient education: Depression treatment options for children and adolescents (Beyond the Basics)".)

Topics that discuss depression in adults are also available. (See "Patient education: Depression in adults (Beyond the Basics)" and "Patient education: Depression treatment options for adults (Beyond the Basics)".)

CAUSE OF DEPRESSION

The exact causes of depression are not known. Studies of twins suggest that genes and environment both play important roles in the development of depression. In addition, an individual's behaviors and thoughts can play a role in the development and course of depression. As an example, tendencies for depressed people to be pessimistic about the future, themselves, and their surroundings put them at risk for depression. In addition, chemicals in the brain called neurotransmitters (such as serotonin, norepinephrine, and dopamine) are involved in the onset of depression. Neurotransmitters allow cells in the brain to communicate with each other, and play an essential role in all brain functions, including movement, sensation, memory, and emotions. Antidepressants and even psychotherapy are designed to reverse abnormal changes in brain chemistry and function.

DEPRESSION RISK FACTORS

It is not always clear what gives rise to depression in a particular person, but there are certain risk factors that seem to increase the chance that a child or adolescent will develop depression. These include:

- History of depression in a parent or sibling
- Family dysfunction or conflict with a caregiver
- Exposure to early adversity (such as abuse, neglect, the loss of a loved one in early life)
- Problems with friends or school
- Gender dysphoria and/or identifying as gender nonconforming, lesbian, gay, bisexual, transgender, queer, and/or questioning
- Negative outlook or poor coping skills
- Previous bouts of depression

- History of anxiety disorders, learning disabilities, attention deficit hyperactivity disorder, or significant defiance or conduct problems
- History of brain injury or low birth weight
- Chronic medical illness

DEPRESSION SYMPTOMS

Depression can take many forms and has varying levels of severity. Part of the variability in the disorder happens because it can co-occur with many other mental disorders (such as anxiety disorders or substance use disorders), which shape the manifestation of depression.

Diagnostic criteria — When people talk about depression, they're usually referring to what healthcare providers call unipolar major depression (or major depressive disorder). To be diagnosed with unipolar major depression, a child or adolescent must have five or more of the following symptoms present most of the day nearly every day for at least two consecutive weeks. For the diagnosis, at least one symptom must be either depressed mood or loss of interest or pleasure. However, people with fewer than five symptoms of depression may still have trouble functioning, and treatment approaches are similar.

Depressed or irritable mood — Depressed mood, such as feeling low, down, sad, or blue much of the time, is a key symptom of depression. This depressed mood can manifest as perceiving others as antagonistic or uncaring, brooding about real or potentially unpleasant circumstances, maintaining a gloomy or hopeless outlook, believing that everything is "unfair," or feeling helpless or that they disappoint others.

But children and adolescents sometimes lack the emotional and intellectual maturity to recognize that they are dealing with depression. Instead, it's not unusual for them to express themselves with an irritable mood, which can manifest as feeling "annoyed," "grouchy," or "bothered" by everything and everyone. Rather than expressing sadness, depressed children and adolescents may be negative and argumentative, and pick fights as a means to convey their emotional distress. They are sometimes intolerant of frustration and respond to minor provocations with angry outbursts.

As a coping mechanism, adolescents sometimes seek out activities and experiences to temporarily lift their mood. Examples of these activities include time spent with friends, thrill-

seeking, promiscuity, and drug use. Most adolescents – regardless of whether they are depressed – are invested in their friends, but in the context of depression, the need for social connection sometimes becomes much more intense and urgent. In part that may be because depressed adolescents, particularly girls, seek out and commiserate with other depressed peers about their symptoms, which runs the risk of reinforcing the problem and increasing its severity.

Diminished interest or pleasure — Children and adolescents with depression lose interest in or no longer feel pleasure doing the things they used to enjoy. The medical term for this is anhedonia. Hobbies, interests, and even loved ones lose their appeal, such that depressed children or adolescents may describe experiences as "boring," "stupid," or "uninteresting." They may withdraw from or lose interest in friends. Adolescents who are sexually active may have a decreased interest in sex.

Change in appetite or weight — Appetite and weight can either decrease or increase as part of depression. But in children, a decrease in appetite may manifest with failure to gain weight as expected, rather than weight loss.

Sleep disturbance — Depression can cause children and adolescents to sleep too much or too little, or have odd patterns of sleep. For instance, those with depression might have trouble getting to sleep, wake in the middle of the night and have trouble getting back to sleep, or wake too early and be unable to get back to sleep. Some may even have a reversal of sleep cycles whereby they sleep during the day and stay awake at night. Regardless of when they sleep, many children and adolescents with depression say they do not feel rested and have a hard time getting out of bed in the morning.

Psychomotor agitation or retardation (restlessness or sluggishness) — Children and adolescents with depression can feel agitated and restless, or have the opposite effect and feel slowed down. Agitation can manifest as hand-wringing, pacing, and fidgeting, while retardation can manifest as a slowing of body movements, thinking, or speech.

Fatigue or loss of energy — Children and adolescents with depression often feel exhausted and listless. They sometimes need to rest during the day or even feel as though their arms and legs are weighted down. Plus, they have trouble starting or completing tasks. This listlessness can cause conflicts with parents if parents attribute lack of energy and motivation to laziness, an oppositional attitude, or avoidance of responsibilities.

Feelings of worthlessness or guilt — Depressed children and adolescents often feel inadequate, inferior, worthless, or like a failure. But this symptom can be tough to evaluate, because they aren't necessarily willing to admit these feelings.

Children and adolescents who are struggling with feelings of worthlessness or guilt may:

- Be excessively self-critical of their accomplishments
- Have trouble identifying positive self-attributes
- Be dissatisfied with several aspects of themselves
- Lie compulsively about success or skills to bolster self-esteem
- Be envious or be preoccupied with the success of others
- Blame themselves for events that are not their fault
- Believe they deserve to be punished for things that are not their fault
- Be unwilling to try things out in the conviction that they will fail

Impaired concentration and decision making — Depressed children and adolescents can have problems with attention, concentration, and memory that were not present to the same degree before the depression set in. They sometimes process information more slowly or become indecisive and unable to take action. It can take them longer to complete homework and class work, which means that their grades can suffer.

Recurring thoughts of death or suicide — Children and adolescents with depression can have recurrent thoughts of death (not just fear of death) or suicide, or attempt suicide. In teenagers this can manifest as a preoccupation with music and literature that have morbid themes, or as passive suicidal ideation, which means that they entertain thoughts that life is not worth living or that others would be better off if they were dead. Some teenagers have active suicidal ideation, which means that they entertain thoughts of killing themselves, make plans for suicide, enter suicide pacts, or actively attempt suicide. Those who consider suicide often do it out of a sense of hopelessness and because they see it as the only option to escape emotional pain. (See "Suicidal behavior in children and adolescents: Epidemiology and risk factors".)

Preventing suicide — Suicide is a tragic and preventable consequence of severe depression. Any mention of suicide or self-harm should be taken seriously. Signs that a child or teen is considering suicide include the following [1]:

- Ideation – Talking about or threatening to kill or hurt oneself; looking for ways to kill oneself; talking or writing about death, dying or suicide
- Substance abuse – Increased substance use
- Purposelessness
- Anxiety – Anxiety, agitation, or changes in sleep pattern
- Trapped – Feeling like there is no way out
- Hopelessness
- Withdrawal – Withdrawing from friends, family, and society
- Anger
- Recklessness
- Mood changes

Parents who are concerned that their child is considering suicide should seek care as soon as possible to clarify risk and establish a safety plan. If the parent is concerned that the child is at risk of hurting him or herself or others, the parent should do one of the following:

- Call their healthcare provider for advice or an urgent appointment
- Take the child to the local emergency department
- Call the National Suicide Prevention Lifeline (www.suicidepreventionlifeline.org) at 1-800-273-TALK (8255)

An adolescent who is at immediate risk for attempting suicide requires emergency evaluation and prompt treatment for depression (if depression precipitated the suicidal thoughts). This may include hospitalization, antidepressant medication, increased monitoring, safety planning, and intensive therapy.

Impact of depression on normal functioning — In children and adolescents, depression can adversely affect school performance, relationships with parents and peers, and other everyday functions. What's more, depressed adolescents are more likely to engage in risky behaviors such as promiscuity or drug use. Unfortunately, these problems created by depression can perpetuate and augment its reasons, creating a vicious cycle.

COMORBIDITY

When a person has two or more medical conditions, the conditions occurring together are called comorbidities. In the context of pediatric depression, comorbidity is the rule rather than the exception. Up to 70 percent of depressed children and adolescents have at least one other psychiatric disorder and many have two or more. The most common comorbidities include:

- Anxiety disorders
- Attention deficit hyperactivity disorder
- Oppositional defiant disorder
- Substance use disorders

Depression can also increase the risk of other disorders setting in, such as eating or substance abuse disorders. Naturally, having any of these comorbidities can compound the problems associated with depression and make the illness harder to treat and more likely to recur.

There is also evidence that major depression in adolescents is associated with an increased risk of early heart disease. In addition, other risk factors for heart disease like obesity, diabetes, and smoking are more common in children and adolescents with major depression. As a result, children and adolescents being treated for depression should also be monitored for these issues.

DEPRESSION DIAGNOSIS

If you take your child to a healthcare provider to evaluate him or her for depression, the

healthcare provider will likely do a full physical exam (and possibly some tests) to make sure there isn't a medical problem that could be contributing to the symptoms. Nevertheless, the bulk of the information for the diagnosis will come from the discussion the healthcare provider has with you and with your child. Depending on your child's age and mindset, it may be important for the healthcare provider to speak privately with your child or adolescent.

If your child is diagnosed with depression, you both might be inclined to question the diagnosis. This happens a lot, in part because people are more comfortable believing that a "medical" diagnosis is to blame for the symptoms. In truth, depression is a medical diagnosis that can have a broad impact on one's well-being, though people don't always recognize that. People with depression have abnormalities both in the chemistry and structure of their brain and depressive symptoms impact both the body and mind. Luckily, there are effective treatments that can alleviate its symptoms.

Course of illness — Studies indicate that in children who are being treated for depression, the condition can last roughly 8 to 13 months. After recovery, somewhere between 30 and 70 percent of children tend to relapse. In adolescents, the numbers are little different. For them, depression might last 4 to 9 months, and 20 to 50 percent might relapse.

Subtypes of depression — Aside from unipolar major depression, whose diagnostic criteria are discussed above, there are other subtypes of depression, which are characterized by their most prevalent symptoms (see 'Diagnostic criteria' above). For example, there is a subtype of depression called anxious depression, whose most prevalent symptoms include worrying, pacing, and other manifestations of anxiety. There are also forms of depression that are situation-specific. For example, women or adolescent girls sometimes develop depression just before or just after giving birth, called "peripartum onset," or cyclically, just before menstruating, called "premenstrual dysphoric disorder" (see "Patient education: Premenstrual syndrome (PMS) and premenstrual dysphoric disorder (PMDD) (Beyond the Basics)"). There is also a form of depression that happens during certain times of the year, when there is less daylight, called "seasonal affective disorder."

WHEN TO SEEK HELP FOR DEPRESSION

Parents may not be sure if their child is suffering from depression or just experiencing normal issues of childhood or adolescence. If a parent observes a change in the child's mood along with a change in functioning (for example, performance in school or interactions with friends

or family), the parent should contact a healthcare provider as soon as possible. If the child has suicidal thoughts or behaviors, seek help immediately. (See 'Preventing suicide' above.)

DEPRESSION TREATMENT

A separate topic review discusses treatment options for children and adolescents with depression. (See "Patient education: Depression treatment options for children and adolescents (Beyond the Basics)".)

WHERE TO GET MORE INFORMATION

Your child's healthcare provider is the best source of information for questions and concerns related to your child’s medical problem.

This article will be updated as needed on our web site (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for healthcare professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

Patient education: Depression (The Basics)
Patient education: Medicines for depression (The Basics)
Patient education: Electroconvulsive therapy (ECT) (The Basics)
Patient education: Anorexia nervosa (The Basics)
Patient education: Bulimia nervosa (The Basics)
Patient education: Post-traumatic stress disorder (The Basics)
Patient education: Antisocial personality disorder (The Basics)
Patient education: When you have depression and another health problem (The Basics)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

Patient education: Depression treatment options for children and adolescents (Beyond the Basics)
Patient education: Depression in adults (Beyond the Basics)
Patient education: Depression treatment options for adults (Beyond the Basics)
Patient education: Hypothyroidism (underactive thyroid) (Beyond the Basics)
Patient education: Adrenal insufficiency (Addison's disease) (Beyond the Basics)
Patient education: Systemic lupus erythematosus (Beyond the Basics)
Patient education: Bipolar disorder (manic depression) (Beyond the Basics)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

Pediatric unipolar depression: Epidemiology, clinical features, assessment, and diagnosis
Effect of antidepressants on suicide risk in children and adolescents
Suicidal behavior in children and adolescents: Epidemiology and risk factors
Suicidal ideation and behavior in children and adolescents: Evaluation and management
Overview of prevention and treatment for pediatric depression
Pediatric unipolar depression and pharmacotherapy: Choosing a medication
Pediatric unipolar depression: Psychotherapy

The following organizations also provide reliable health information.

- National Library of Medicine

  (www.nlm.nih.gov/medlineplus/healthtopics.html)

- National Institute of Mental Health

  (www.nimh.nih.gov)

- The Nemours Foundation

  (www.kidshealth.org)

- American Academy of Child and Adolescent Psychiatry

(www.aacap.org)

- Mental Health America

(http://www.mentalhealthamerica.net)

- American Foundation for Suicide Prevention

(www.afsp.org)

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