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DEPRESSION OVERVIEW

If you are the parent of a child or adolescent (teen) who has been diagnosed with clinical depression, you may be worried about your child and the implications of treatment. When people talk about depression, they're usually referring to what healthcare providers call unipolar major depression (or major depressive disorder).

You may have heard stories in the media of self-harm, risk-taking, and substance abuse among young people who are depressed. You may have also heard alarming warnings about the potential risks of antidepressants. However, depression in children and adolescents can be safely and effectively treated. Psychological treatments (psychotherapy), medication therapy (pharmacotherapy), and other measures can alleviate symptoms and help children and adolescents to succeed in school, develop and maintain healthy relationships, and feel more self-confident. Although it is not clear that antidepressants cause suicide in children and adolescents, it **is** clear that depression can cause suicide.

This topic review discusses the treatment options available for children and adolescents with depression. The causes, symptoms, and diagnosis of depression are discussed separately (see "Patient education: Depression in children and adolescents (Beyond the Basics)").

Parents who are unsure if their child is depressed should discuss their uncertainty with their doctor and read the topic review on diagnosis before they read the present topic on treatment.

Topic reviews about 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)".)

STEP ONE: EDUCATION

In children and adolescents, treatment for depression is most successful when the parents are involved. Learning about depression is an important component of depression treatment. Family education is also important before decisions are made about a treatment plan.

Understanding how depression affects the child or teen's mood, thoughts, body, and behavior can help the patient and his or her family in several ways:

- Family members can learn about the symptoms of depression and how these symptoms impact the child or teen's relationships with friends and family, willingness to attend school, and ability to complete school work.
- Other family members might be able to identify their own depressive symptoms and need for treatment.
- Family members can learn how to help the child or teen with depression. It is important to clarify the role of parents, other family members, and teachers in the patient's treatment and recovery.
- Family members can learn how to make the environment safer for the patient. For example, the need to limit access to certain items, such as prescription medications and weapons, should be discussed.
- Family members can learn about available treatment options for depression, including the pros and cons of various treatment options, so that they can make well-informed decisions.
- Family members can learn how to recognize if the child or teen's depressive symptoms are recurring or coming back.

DEPRESSION TREATMENT OPTIONS

Treatment options for depression in children and adolescents include psychotherapy (sometimes called counseling or “talk therapy”) and pharmacotherapy (medication). The specific treatment plan will depend on the child and family’s individual situation, preferences, and the severity of the depression.

“Major depression” is the medical term for depression that meets particular criteria (see "Patient education: Depression in children and adolescents (Beyond the Basics)", section on 'Diagnostic criteria'). A person can have mild, moderate, or severe major depression. People with major depression of mild severity have fewer and less intense symptoms compared with people with moderate or severe major depression.

Children and adolescents with mild depression are usually treated with psychotherapy alone. If the depressive symptoms do not begin to improve within six to eight weeks, or if symptoms worsen, an antidepressant medication may be recommended.

Children and adolescents with moderate to severe depression generally require psychotherapy **and** one or more medications. This is called “combination therapy.” Treatment with combination therapy increases the likelihood of improved symptoms and relationships with family and friends; it can also improve self-confidence and the ability to cope effectively.

Compared with adults, there are fewer high quality studies of treatment of depression in children and adolescents [1-3]. Current practice guidelines for treating younger patients are based upon a combination of data from studies of depressed adolescents, adult depression research, and practical experience.

Many pediatricians diagnose and treat depression in children and adolescents, but they often work closely with mental health specialists (including psychiatrists, psychologists, social workers, and counselors) to provide care as a team. A psychiatrist is a medical doctor with specialized training in the treatment of mental health illnesses and problems. A psychiatrist working with young patients should ideally have training and experience in child and adolescent psychiatry or, if the person has adult-only training, he or she should have experience treating teenagers. In some cases, a psychiatrist provides counseling and prescribes medications if needed; in other cases, a therapist provides counseling and a psychiatrist or the child’s pediatrician prescribes medication. A mental health specialist should

be involved if the child or adolescent has other illnesses along with the depression, such as substance abuse, an eating disorder, or certain problems (such as attention deficit hyperactivity disorder [ADHD] or anxiety) that haven't responded well to treatment.

COUNSELING TO TREAT DEPRESSION

Psychotherapy (also called "talk therapy" or counseling) teaches patients and their families to understand themselves and the nature of depression. This includes how to deal with low mood, engage in productive behaviors, manage relationships, and develop effective problem solving strategies for life stressors associated with depression.

Therapy sessions are usually conducted in the therapist's office once per week for 30 to 60 minutes. The patient, parents, and therapist should work together to determine the optimal schedule.

During therapy sessions, children and teens talk about their feelings, thoughts, behaviors, and relationships with the therapist. The patient and therapist can discuss alternate ways of thinking or taking action, which often helps the child or teen to cope more effectively with depressive symptoms, improve social and problem solving skills, and increase self-confidence. There are two specific types of psychotherapy that have been shown to be effective:

- Cognitive behavioral therapy (CBT) – This is a method that aims to help the child or adolescent actively identify and change the thoughts and behaviors that contribute to depression and negative feelings.

- Interpersonal psychotherapy – This approach focuses on identifying and improving problems that youth experience with other people, such as parents or friends, or changes in life situation such as a move or a parental divorce. Interpersonal therapy for adolescents is adapted from a similar type of therapy used for adults with depression, but tailored to address issues relevant to adolescents such as autonomy, romantic and sexual relationships, peer pressure, and conflict with parents.

  Younger children (preadolescents) may benefit from a therapy called "family-based interpersonal therapy," which involves the family and includes a focus on the child's relationship with his or her parents as well as peers.

Other psychotherapies may also be helpful for depressed children and adolescents, particularly those who present with self-harm. These include family therapy and dialectical behavior therapy (a form of CBT).

While it is important to involve parents in some aspects of their child's treatment (particularly regarding education, ensuring safety, and issues that involve the parent-child relationship), parents usually do not sit in the room with the teen and therapist throughout all therapy discussions. The reason for this is that all patients have a right to privacy and may be reluctant to openly discuss important topics when parents are present.

The initial therapy sessions often focus on trying to identify the factors that are contributing to and maintaining depression. Therapy often includes changing unproductive behavior patterns that are common during episodes of depression. Although psychotherapy can lessen depression within several weeks, the greatest benefit of therapy may not be seen for eight to 10 weeks or longer.

Psychotherapy can be provided by a range of healthcare professionals with appropriate training, including psychiatrists, psychologists, clinical social workers, and clinical nurse specialists. When choosing a therapist, it is important to consider the therapist's training and experience with children/adolescents and evidence based practice. It is also important to consider the therapist's willingness to incorporate family members in the therapy.

Below are some examples of useful questions to ask of the therapist:

- What type of training and experience do you have treating depression in children and adolescents?
- Are family members included in some aspects of the treatment? If so, how?
- What is your experience in using CBT or interpersonal psychotherapy for depression?

Children and teens with severe depression and those at risk for suicide are often hospitalized in a psychiatric facility. During the hospitalization, the patient usually has a group of clinicians (psychiatrist, psychologist, social worker, etc.) who comprise the treatment team. Depression treatment often includes medication and individual, group, and/or family therapy. Other activities may include physical exercise, art/music therapy, and school work.

MEDICATION TO TREAT DEPRESSION

Children and adolescents with moderate to severe major depression are usually treated with medication in addition to psychotherapy. Treatment with an antidepressant medication helps to reestablish the normal balance of chemicals in the brain. In most cases, the preferred antidepressant is a selective serotonin reuptake inhibitor (SSRI); however, there are other options as well.

If a healthcare provider recommends an antidepressant medication for a child or adolescent's depression, the following issues should be discussed before treatment begins:

- The expected benefits and possible risks and side effects
- The instructions for the dose and timing
- The expected length of time to response
- Potential interactions with other prescription or non-prescription medications
- Alternatives to medication (eg, continued psychotherapy)

An information sheet for parents about antidepressants in children and adolescents is provided in a table (table 1).

Selective serotonin reuptake inhibitors (SSRIs) — Medications called selective serotonin reuptake inhibitors (SSRIs) are generally the first-line medication for depression in children and adolescents because most people have only mild (or no) side effects, and the medication is generally taken once per day.

SSRIs that have been studied and used in children and adolescents with unipolar major depression include fluoxetine (brand name: Prozac), citalopram (brand name: Celexa), escitalopram (brand name: Lexapro), fluvoxamine (brand name: Luvox), paroxetine (brand name: Paxil), and sertraline (brand name: Zoloft). Fluoxetine has been more widely studied than other SSRIs in children and adolescents. Questions or concerns about any antidepressant should be discussed with the individual clinician.

Side effects — Side effects of SSRI antidepressants often improve quickly (within one to two weeks), but may include headache, abdominal pain, diarrhea and nausea, sleep changes, jitteriness, agitation, sexual side effects (decreased libido, delayed ability or inability to experience orgasm/ejaculate), or a tendency to bruise.

A more serious potential side effect of SSRIs is serotonin syndrome. Symptoms of serotonin syndrome can include agitation, confusion, and overheating (hyperthermia). This can occur

with high doses of an SSRI or if an SSRI is taken in combination with other medications that affect serotonin, such as a class of migraine medications called triptans.

If a patient cannot tolerate or doesn't respond to the first SSRI, a different SSRI may be more effective. Research indicates that around half of depressed youth who do not respond to a first SSRI will respond to a second one.

Atypical antidepressants — Atypical antidepressants may be considered if SSRIs are not effective or cannot be tolerated. Available options include venlafaxine (brand name: Effexor), desvenlafaxine (brand name: Pristiq), duloxetine (brand name: Cymbalta), mirtazapine (brand name: Remeron), and bupropion (brand name: Wellbutrin). Venlafaxine appears to be effective for depression in adolescents, and works about as well as SSRIs, although it has more side effects. However, other than venlafaxine, these medications have not been well studied in children and adolescents.

Tricyclic antidepressants — Another group of antidepressants that are rarely used in children or adolescents are called tricyclic antidepressants (TCAs). Drugs in this class include imipramine (brand name: Tofranil), amitriptyline (brand name: Elavil), desipramine (brand name: Norpramin), nortriptyline (brand name: Pamelor), and clomipramine (brand name: Anafranil). TCAs do not appear to be effective in children and younger adolescents.

In addition, TCAs can cause numerous side effects, so healthcare providers rely first on alternatives such as SSRIs. But if SSRIs and alternatives do not adequately treat the depression, TCAs may be an option. The side effects of TCAs may include dry mouth, blurred vision, constipation, nausea, difficulty urinating, drowsiness, weight gain, and rapid heartbeat.

Antidepressants and the risk of suicide — Depression significantly increases a person's risk of having suicidal thoughts and committing suicide. However, some parents are concerned that treatment with antidepressants can actually increase the risk of suicide. While there appears to be a very small increased risk of suicidal thoughts and behavior in people under the age of 25 who are in the initial stages of antidepressant treatment, many more patients benefit from antidepressants than will experience suicidal thoughts.

> In considering whether or not to use medication to treat depression, the parent(s) and prescriber must balance the small increased risk of suicidal thoughts against the very real risk of suicide if the child or teen's depression is not adequately treated. Any mention of suicidal thoughts or feelings in a depressed child or adolescent should be taken seriously.

Parents who are concerned that their child is considering suicide should seek care as soon as possible. A depressed child or adolescent who is at risk of attempting suicide will be provided with emergency treatment for depression; this may include hospitalization, antidepressant medication, and intensive therapy.

Treatment of depression can decrease the risk of suicide, but does not eliminate the risk. For this reason, most experts recommend that the parents and healthcare providers (eg, therapist, psychiatrist, pediatrician) closely monitor the child or adolescent for evidence of suicidal thoughts or behaviors for at least the first 12 weeks of depression treatment and if the antidepressant medication dose is changed.

If suicidal thoughts or behaviors develop during treatment with an antidepressant, the dose may be adjusted, an alternative antidepressant may be tried, or the medication may be discontinued.

ANTIDEPRESSANT MEDICATION ISSUES

Time required for a response — Some people respond to antidepressant medication after about two weeks, but for most, the full effect is not seen until four to six weeks or longer. During the first few weeks, the dose is usually increased gradually. The patient usually sees the prescribing clinician once per week for the first four weeks, then every two weeks for the next four weeks, and then every one to three months; if problems develop at any point, more frequent visits may be recommended. This usually means that the patient will have at least two appointments per week for medication monitoring and counseling during the first few months of treatment.

By six to eight weeks after starting an antidepressant medication, it is usually possible to determine if the medication is effective. If symptoms have improved somewhat during this time, the dose of the medication may be increased. If there has been no improvement in symptoms, an alternate antidepressant medication may be recommended; psychotherapy may also be added if it was not already part of the treatment plan. If symptoms still don’t improve, the clinician (if not a psychiatrist) may refer the patient to a psychiatrist to evaluate for other possible diagnoses, such as bipolar disorder or substance use disorder, as well as other factors that may be interfering with treatment (such as stress, bullying, or abuse).

Duration — In most cases, the antidepressant medication is continued for at least 6 to 12

months after the symptoms of depression improve. This recommendation varies greatly depending upon the individual's situation. The decision to stop antidepressant medication should be shared among the child or adolescent, parent(s), and the clinician. Ideally, discontinuation occurs during a lower stress time for the patient (eg, at the beginning of summer vacation).

When most antidepressants are stopped, they should be tapered slowly over two to four weeks to minimize the potential side effects associated with abruptly stopping medication. (One exception is fluoxetine, which takes a long time to be cleared from the body, and can be stopped without a taper.) Side effects associated with stopping antidepressant medication quickly can include jitteriness, dizziness, nausea, fatigue, muscle aches, chills, anxiety, and irritability. Although these symptoms are not dangerous and usually improve over one to two weeks, they can be quite distressing and uncomfortable.

A relapse in depression is relatively common after stopping antidepressant medications; in some cases, longer-term treatment is recommended. (See 'Maintenance drug therapy' below.)

Maintenance drug therapy — Maintenance drug therapy (long-term antidepressant therapy) may be appropriate for children and adolescents who are at high risk for a relapse of depression. Relapse often occurs in pediatric patients who stop their antidepressants soon after their depressive syndromes improve [4-6]. Maintenance therapy may last from one year to indefinitely, depending upon the individual's situation and personal history of depression.

Therapy with other medications — For some people, depression is accompanied by other psychiatric conditions, such as panic attacks, obsessive-compulsive disorder, or mania. Treatment with more than one medication, including an antidepressant and an antipsychotic, antianxiety, mood-stabilizing (eg, lithium), or anticonvulsant medication may be recommended in these situations.

OTHER TREATMENT OPTIONS FOR DEPRESSION

Alternative treatments — Some alternative methods for treating depression have been studied, including omega-3 fatty acids (found in fish oil) and St. John’s wort. So far, the research on these and other alternative treatments has been inconclusive, so we do not recommend their use. But those who interested in the efficacy of such options can learn more at the National Center for Complementary and Alternative Medicine, a branch of the National

Institutes of Health (www.nccam.nih.gov/health/).

Electroconvulsive therapy (ECT) — During electroconvulsive therapy (ECT), an electrical current is passed through the brain, which in turn causes chemical changes that can relieve severe depression. While scientists do not yet fully understand exactly how ECT does this, they know it causes helpful changes to the molecules and cells of the brains of people with depression. ECT is especially effective for people with depression who also have delusions (powerful, irrational beliefs) and for people who have severe depression that has not responded to other treatments. The parent(s), patient, and psychiatrist must all agree to a trial of ECT before it is considered; state and local guidelines may also apply. (See "Medical consultation for electroconvulsive therapy".)

Patients who undergo ECT are given general anesthesia to induce sleep and prevent discomfort. The patient is monitored carefully before, during, and after the treatment. Side effects of this therapy include brief confusion and memory loss. Although ECT has often been negatively portrayed in the media, it often provides rapid and dramatic relief of depression and has few side effects. Most people who undergo ECT find it a helpful treatment for their depression.

ANTIDEPRESSANTS AND PREGNANCY

Information about the safety of antidepressant medications in pregnancy is available in a separate topic review. (See "Patient education: Depression treatment options for adults (Beyond the Basics)", section on 'Depression and pregnancy'.)

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: Post-traumatic stress 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 in children and adolescents (Beyond the Basics)
Patient education: Depression in adults (Beyond the Basics)
Patient education: Depression treatment options for adults (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.

Complications and screening in children and adolescents with type 1 diabetes mellitus
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
Medical consultation for electroconvulsive therapy

The following organizations also provide reliable health information.

- National Library of Medicine

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

- The American Academy of Child and Adolescent Psychiatry (AACAP)

(www.aacap.org)

- Federal Drug Administration

(www.fda.gov/drugs/resources-you)

- The American Psychiatric Association

(www.psych.org)

- American Psychological Association

(www.apa.org)

- Anxiety and Depression Association of America (ADAA)

(www.adaa.org)

- Association for Behavioral and Cognitive Therapies (ABCT)

(www.abct.org)

- National Alliance for the Mentally Ill

(www.nami.org)

- National Institute of Mental Health

(www.nimh.nih.gov/health/topics/depression/index.shtml)

- Mental Health America

(http://www.mentalhealthamerica.net/)

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