Depression is a mood disorder in which feelings of loss, anger, sadness, or frustration interfere with everyday life. Although everyone feels sad sometimes, depression is persistent and disrupts your daily life. Depression is one of the most common illnesses, affecting about 18 million Americans each year. It can be mild, moderate, or severe and occur as a single episode, recurring episodes, or chronic depression (lasting more than 2 years). Many experts consider depression to be a chronic illness that requires long-term treatment.

The primary types of depression include:

- Major depression -- An episode must last at least 2 weeks but tends to continue for 20 weeks.
- Dysthymia -- a chronic, less severe form of depression. Symptoms are similar to major depression but more mild. People with dysthymia have an increased risk of major depression.
- Atypical depression -- Unlike those with major depression, people with atypical depression can feel better temporarily when something good happens. In addition, people with atypical depression have different symptoms than those with major depression. Despite its name, atypical depression may be the most common form of depression.
- Adjustment disorder -- occurs when a person's response to a life event, such as the death of a loved one, causes symptoms of depression.

Other common forms of depression include:

- Postpartum depression -- about 10% of mothers may have depression after giving birth
- Premenstrual dysphoric disorder (PDD) -- Depressive symptoms occur 1 week prior to menstruation and disappear following menstruation.
- Seasonal affective disorder (SAD) -- a pattern of depression related to the seasons and a lack of sunlight. It occurs during the fall-winter season and disappears during the spring-summer season.
- Bipolar disorder -- characterized by mood swings from depression to mania. Also called manic-depressive disorder.

### Signs and Symptoms

While it is normal for most people to feel "down in the dumps" on occasion, someone with major depression feels significantly depressed for a prolonged period of time. They have trouble enjoying acts that were once pleasurable. Symptoms include:

- Sleep problems -- at least 90% of people with depression have either insomnia or hypersomnia, meaning they sleep too much.
- Significant change in appetite, often causing either weight loss or weight gain
- Fatigue and loss of energy
- Feelings of worthlessness, self-hate, and guilt
Problems concentrating
Agitation, restlessness, and irritability or inactivity and withdrawal
Recurring thoughts of death or suicide
Feelings of hopelessness
Loss of interest in sex

Causes

No one knows exactly what causes depression. It's likely that a combination of biologic, genetic, and environmental factors are involved. People with depression may have abnormal levels of certain brain chemicals called neurotransmitters, including serotonin, dopamine, and norepinephrine. These factors may contribute to development of depression:

- Heredity -- a recently identified gene called SERT that regulates the brain chemical serotonin has been linked to depression. In addition, some studies show that people with family members who have depression are themselves more likely to be depressed.
- Biochemical changes in the brain -- some imaging studies suggest that people with depression may have physical changes in their brains.
- Long-term stress, such as from loss, abuse, or deprivation in early childhood
- Being exposed to low levels of light, in SAD
- Sleep problems
- Social isolation
- Nutritional deficiencies
- Serious medical conditions, such as heart attack or cancer
- Certain medications, including those for high blood pressure, high cholesterol, or irregular heartbeat

Risk Factors

Although depression can affect anyone, no matter what age, race, or gender, the following factors may increase your risk for depression:

- Having had depression
- Family history of depression
- Suicide attempt -- having made a suicide attempt during a previous depression raises the risk of another episode of depression.
- Being a woman -- more women than men seem to have depression. However, this may be because women report their symptoms more frequently than men. Or hormonal changes may make women more likely to have depression.
- Stressful life events, such as the death of a loved one
- Just having given birth to a baby (postpartum)
- Having a chronic illness, including autoimmune diseases (such as lupus), cancer, heart disease, chronic headaches, chronic pain, anxiety, obsessive-compulsive disorder, and
borderline personality disorder. Medical conditions that cause shifts in hormones, such as thyroid disorders or menopause, may also contribute to depression.

- History of abuse, such as mental, physical, or sexual
- Lack of a support system, such as a network of close friends or family
- Alcohol or drug abuse -- 25% of people with addictions have depression.

**Diagnosis**

If you feel depressed or have symptoms of depression, it's important to tell your doctor. Depression usually doesn't go away on its own. Proper diagnosis is the first step toward treatment. Talk to your primary care doctor or a mental health provider.

If you have thoughts of suicide, call 911 or a local emergency hotline. It's important to talk to someone immediately. You can also call a family member or friend, your minister, or someone in your faith community.

Your doctor may run tests to rule out other conditions. Your doctor will take a medical history and ask about your symptoms. Your doctor may also order blood tests to check your thyroid function and other conditions and may refer you to a psychiatrist.

Although most people with depression are treated as outpatients, people with suicidal thoughts may need to be hospitalized.

**Preventive Care**

Although there is no guarantee you can prevent depression, the following steps may help or lower your chances of having it come back:

- Getting enough sleep and regular exercise, and eating a balanced, healthy diet may help prevent depression and reduce symptoms.
- Mind-body techniques, such as biofeedback, meditation, and tai chi, may help prevent or reduce symptoms associated with depression.
- Psychotherapy that helps you learn coping skills may help prevent relapse.
- Family therapy may prevent children or teens of depressed parents from becoming depressed later in life.
- Taking your medication as prescribed lowers the chance of relapse.

**Treatment Approach**

People with depression have several options for treatment. Most experts recommend a combination of psychotherapy and antidepressants, particularly for people with major depression. Cognitive-behavioral therapy may be the most effective type of psychotherapy, particularly for teens and people with atypical or postpartum depression.

Most people with depression get better with a combination of psychotherapy and antidepressants. Some complementary and alternative therapies may help either reduce the side effects from such medications or the symptoms of mild-to-moderate depression.

**Lifestyle**
**Exercise**

Studies show that regular exercise -- either aerobic or strength and flexibility training -- can reduce depression symptoms in people with mild-to-moderate depression. Exercise also improves the mood of people with major depression. Some studies even suggest that exercise may work as well as psychotherapy for people with mild-to-moderate depression, although more research is needed. In the meantime, adding exercise to any other treatment for depression, including medications, makes sense.

**Light Therapy**

Light therapy -- exposure to a bright light as soon as you wake up in the morning -- may help people with seasonal affective disorder (SAD).

**Medications**

Antidepressant medications can work well in treating depression, although you may have to try a few different medications to find the one that works best for you. In general, antidepressants are taken for at least 4 - 6 months. Most medications take 2 - 4 weeks to have an effect, and may take up to 12 weeks to have their full effects.

Antidepressants can have unwanted side effects, making it hard for some people to keep taking their medications. Often you and your doctor can work together to find a medication that has fewer side effects. Do not stop your medication without first talking to your doctor. Most antidepressants cause withdrawal symptoms if they are not stopped slowly over time or tapered down.

Note: The Food and Drug Administration requires all antidepressants to carry a "black-box warning" saying that people under age 25 may have an increase in suicidal thoughts or behavior in the first weeks after taking an antidepressant or when the dose is changed. People under 25 should be watched closely when taking antidepressants.

There are several classes of antidepressant medications, including:

**Selective Serotonin Reuptake Inhibitors (SSRIs)**

SSRIs increase the activity of a chemical in the brain called serotonin. Most doctors prescribe SSRIs first for depression, in part because their side effects are generally fewer than for other antidepressants. Typical side effects caused by SSRIs include stomach upset, weight gain or loss, drowsiness, sexual dysfunction (such as impotence, loss of sex drive, and diminished orgasm), headache, jaw grinding, and apathy. Very unusual side effects from this class of prescription drugs include extreme agitation, impulsivity, tremors, and insomnia. People who stop taking SSRIs due to side effects usually say it is because of sexual side effects.

Drugs classified as SSRIs include:

- Fluoxetine (Prozac)
- Sertraline (Zoloft)
- Paroxetine (Paxil) -- most likely in this class to cause sexual dysfunction
- Fluvoxamine (Luvox)
- Escitalopram (Lexapro)
- Citalopram (Celexa) -- least likely in this class to cause sexual dysfunction

**Serotonin and Norepinephrine Reuptake Inhibitors (SNRIs)**
SNRIs are often the second class of antidepressants prescribed. They increase the amount of the chemicals serotonin and norepinephrine available in the brain, and have fewer side effects than other kinds of antidepressants. Side effects can include nausea, insomnia, nervousness, rash, or sexual dysfunction.

Drugs classified as SNRIs include:

- Duloxetine (Cymbalta)
- Venlafaxine (Effexor)

**Norepinephrine-Dopamine Reuptake Inhibitor (NDRI)**

An NDRI increases the amount of the chemicals norepinephrine and dopamine available in the brain. Bupropion (Wellbutrin) is the only approved drug in this class. This medicine does not appear to cause sexual dysfunction or weight gain, but it should not be used if there is a risk or history of seizure.

**Tricyclic Antidepressants**

Tricyclics increase the activity of the brain chemicals serotonin and norepinephrine. They work as well as SSRIs, but they are an older class of medications with more side effects. They are usually prescribed only when other antidepressants have not worked. Tricyclic antidepressants include:

- Amitriptyline (Elavil)
- Amoxapine
- Clomipramine (Anafranil)
- Desipramine (Norpramin)
- Doxepin (Sinequan) -- may help with insomnia
- Imipramine (Tofranil)
- Nortriptyline (Pamelor)
- Protriptyline (Vivactil)
- Trimipramine (Surmontil, Rhotrimine)

Side effects of tricyclics may include:

- Dry mouth
- Blurred vision
- Constipation
- Sexual dysfunction
- Weight gain
- Dizziness
- Drowsiness
- Urinary urgency, a sense that you have to urinate even when your bladder is empty
- Drop in blood pressure when going from lying or sitting to standing, which causes dizziness and lightheadedness
- Irregular heart rhythm
**Monoamine Oxidase Inhibitors (MAOIs)**

MAOIs boost levels of norepinephrine, dopamine, and serotonin in the brain. They are an older class of antidepressants and are rarely prescribed due to potentially serious side effects. People who take MAOIs have to avoid certain chemicals, called tyramines, in their diet. Tyramines are found in fish, alcohol, cheeses, processed meats, and other food. MAOIs also interact with other medications, including Ritalin, used for attention deficit hyperactivity disorder, and pseudoephedrine, a decongestant in many over-the-counter and prescription medications. MAOIs should not be taken with other kinds of antidepressants.

**Surgery and Other Procedures**

Electroconvulsive Therapy (ECT) for depression is usually used when all other therapies have not worked. In ECT, a small electrical current is passed through the brain to cause a seizure. Scientists aren't sure how ECT works, but it may boost levels of neurotransmitters in your brain. It may cause temporary confusion and memory loss, headache, muscle aches, irregular heart rhythm, or nausea. It relieves severe depression for some people and works quickly to reduce symptoms.

Magnetic Resonance Imaging (MRI)-Guided Cingulotomy involves stimulating the brain with electrodes that are surgically implanted. It is an experimental treatment for people who have treatment-resistant depression.

Vagus Nerve Stimulation (VNS) involves surgically implanting a device that stimulates the vagus nerve. This treatment was originally developed for epilepsy, but seems to work for some people with treatment-resistant depression. The device is implanted under the skin in the chest.

**Nutrition and Dietary Supplements**

A comprehensive treatment plan for depression may include a range of complementary and alternative therapies. Preliminary studies suggest some nutritional supplements may reduce the symptoms of depression for some people. It's important to talk to your team of health care providers about the best ways to incorporate these therapies into your overall treatment plan.

Don't try to treat moderate or severe depression on your own. Always tell your health care provider about the herbs and supplements you are using or considering using.

These supplements may help reduce symptoms:

- **SAMe (s-adenosyl-L-methionine)**, 1,600 mg daily, is a substance that is made in the body that may raise levels of the brain chemical dopamine. It has been studied for depression, but results are mixed and not all of the studies have been of good quality. However, some of the studies suggest SAMe can help relieve mild-to-moderate depression and may work faster than prescription antidepressants. If you are taking other medications for depression, speak to your doctor before taking SAMe because it may interact with them.

- **5-HTP (5-hydroxytryptophan)**, 100 mg three times per day, may help raise serotonin levels in the brain. 5-HTP is a precursor to serotonin -- meaning the body converts it to serotonin -- and some early studies suggest it may work like antidepressant drugs. In a few rare cases, contaminants in 5-HTP were associated with a potentially fatal condition called eosinophilia-myalgia syndrome. Combining 5-HTP with other antidepressants can cause serotonin levels in the brain to rise to dangerous levels, a condition called serotonin syndrome. You should not take 5-HTP without the supervision of your doctor.

- **Omega-3 fatty acids**, such as those found in fish oil, 3 - 9 g per day, may help relieve symptoms of depression, but evidence is mixed. Some studies suggest that fish oil, when
taken with prescription antidepressants, works better than antidepressants alone. However, a statistical review of a number of studies failed to find any benefit. Fish oil taken in high doses may increase the risk of bleeding, so do not take it if you also take blood thinners, such as warfarin (Coumadin).

- Vitamin B6, for women with premenstrual dysphoric disorder. A few studies suggest that vitamin B6 may help relieve depressive symptoms associated with premenstrual syndrome, although the evidence is mixed. The studies used high doses, which require a doctor's supervision. Some other studies suggest that B6 may also help with other types of depression, but there is not enough evidence to say for sure.

- Studies have found that some people with depression may have low levels of folic acid, vitamin B12, or vitamin D. If you have depression, you may want to ask your doctor to check your levels. So far there is no proof that taking supplements for any of these vitamins helps relieve depression. But one study suggested that women who took folic acid supplements along with Prozac had a better response than those who took only Prozac.

**Herbs**

Herbs are generally a safe way to strengthen and tone the body's systems. As with any therapy, you should work with your health care provider to get your problem diagnosed before starting any treatment. You may use herbs as dried extracts (capsules, powders, teas), glycerites (glycerine extracts), or tinctures (alcohol extracts). Unless otherwise indicated, you should make teas with 1 tsp. herb per cup of hot water. Steep covered 5 - 10 minutes for leaf or flowers, and 10 - 20 minutes for roots. Drink 2 - 4 cups per day. You may use tinctures alone or in combination as noted.

- St. John's wort (*Hypericum perforatum*) standardized extract, 300 mg two to three times per day, for mild-to-moderate depression. St. John's wort has been studied extensively for depression. Most studies show it may work as well as antidepressant drugs for mild-to-moderate depression. It has fewer side effects than most antidepressants. It may take 4 - 6 weeks when taking St. John's wort before you see any improvement. St. John's wort interacts with a large number of medications, including birth control pills, so check with your doctor if you are taking prescription medications. Do not use St. John's wort to treat severe depression.

- Ginkgo (*Ginkgo biloba*) standardized extract, 40 - 80 mg three times daily, for depression. A few studies looking at gingko for treating memory problems in older adults seemed to show that it also improved symptoms of depression. One laboratory study found that gingko, when given to older rats, increased the number of serotonin-binding sites in their brains. It had no effect on younger rats, so researchers thought that it might relieve depression in older adults by helping their brains respond better to serotonin. However, much more research is needed to say for sure. Gingko may increase the risk of bleeding, especially if you also take blood thinners such as warfarin (Coumadin) or aspirin. Ask your doctor before taking gingko.

**Acupuncture**

Two randomized, controlled, clinical trials suggest that electroacupuncture may reduce symptoms of depression as well as amitriptyline, a tricyclic antidepressant. In electroacupuncture, a small current is applied through acupuncture needles. Other studies suggest that acupuncture may work for people with mild depression and for those with depression related to a chronic medical illness. Further research is needed.
Homeopathy

Although very few studies have examined the effectiveness of specific homeopathic therapies, professional homeopaths may consider the following remedies to alleviate the symptoms of depression based on their knowledge and experience.

Before prescribing a remedy, homeopaths take into account a person’s constitutional type -- your physical, emotional, and intellectual makeup. An experienced homeopath assesses all of these factors when determining the most appropriate treatment for each individual. A few homeopathic remedies that may work for depression include:

- *Ignatia* -- for a sudden sense of grief or disappointment following the death of a loved one, the end of a romantic relationship, or an unexpected loss of one's job
- *Natrum muriaticum* -- for grief following the death of a loved one or sadness from the end of a romantic relationship

Massage and Physical Therapy

Studies of formerly depressed teen mothers, children hospitalized for depression, and women with eating disorders suggest that massage can help reduce stress, anxiety, and symptoms of depression. Giving massage may also help people who are depressed. Elderly volunteers with depression had fewer symptoms when they massaged infants.

Aromatherapy, or using essential oils in massage therapy, may also be a supplemental treatment for depression. Aromatherapy seems to work because it helps people relax, and the person's belief that it will help also has an effect. Essential oils used during massage for depression include:

- Lavender (*Lavandula officinalis*)
- Basil (*Ocimum basilicum*)
- Orange (*Citrus aurantium*)
- Sandalwood (*Santalum album*)
- Lemon (*Citrus limonis*)
- Jasmine (*Jasminum spp.*)
- Sage (*Salvia officinalis*)
- Chamomile (*Chamaemelum nobile*)
- Peppermint (*Mentha piperita*)
- Rosemary (*Rosmarinus officinalis*)

Mind-Body Medicine

Mind-body therapies and techniques that may be useful as a part of an overall treatment regimen for depression include:

Psychotherapy

Cognitive-behavioral therapy is a type of therapy where people learn to identify and change negative thoughts and feelings so they can better cope with the world around them. This therapy seems to work well for people with mild-to-moderate depression, but it may not be
recommended for those with severe depression. Studies of people with depression show that cognitive-behavioral therapy works at least as well as tricyclic antidepressants. People treated with cognitive-behavioral therapy had just as good, or better, results and lower relapse rates than those taking antidepressants.

Other types of therapy that a psychiatrist, psychologist, or social worker may offer include:

- Psychodynamic psychotherapy -- based on Freud's theories about unresolved conflicts in childhood and depression as a grief process
- Interpersonal therapy -- acknowledges that depression has roots in childhood, but focuses on current problems and relationships. It is considered very effective treatment for depression
- Supportive psychotherapy -- nonjudgmental advice, attention, and sympathy. This approach may help people to keep taking their medication

**Tai Chi and Yoga**

Several studies suggest that mind-body techniques, such as yoga, qi gong, and tai chi, may improve symptoms of mild depression.

**Meditation**

Some researchers believe that mindfulness meditation may prevent depression from coming back.

### Other Considerations

**Pregnancy**

- About 10 - 20% of women experience postpartum depression after giving birth.
- Researchers aren't entirely certain about the safety of SSRIs and tricyclic antidepressant medications during pregnancy. Follow the advice of your doctor. The risks and benefits to the mother and the baby must be weighed in each individual case. MAOIs cause birth defects and should be avoided during pregnancy.
- Many of the dietary supplements and herbs mentioned here have not been tested for safety during pregnancy. Talk with your doctor or pharmacist.

**Warnings and Precautions**

- People with Parkinson's disease should avoid SSRIs.
- People with coronary artery disease should avoid tricyclic antidepressants.
- Several herbal remedies and supplements should not be combined with antidepressant medications. Be sure to tell your health care provider about all herbs and supplements you take to avoid adverse interactions.

**Prognosis and Complications**

Depression is a serious condition that can have a devastating effect on people's lives. It can directly and indirectly contribute to chronic medical conditions, such as heart disease and stroke.
Depressed people with these conditions are less likely to do healthy activities, such as exercise, and more likely to do unhealthy activities, such as smoking.

Suicide is a significant risk for people with depression. About 15% of people with a major depressive disorder commit suicide. Depression also significantly shortens the lifespan of the elderly and is associated with memory problems and dementia.

When left untreated, depression can last up to 2 years or longer. Depression is likely to come back: 50% of people who have had one depressive episode will have a second one, 70% of those who have two episodes will have a third, and 90% of those who have three episodes will have a fourth. For women with premenstrual dysphoric disorder or SAD, symptoms usually go away after menopause.

Fortunately, there are several treatment options available for people with depression. The prognosis improves tremendously for people who seek treatment and follow their doctor’s recommendations.

### Supporting Research


