

understanding Depression

What Is Depression?

Depression is a serious medical condition that affects thoughts, moods, feelings, behavior, and physical health. There are different types of depressions, the most common is Major Depressive Disorder. Major Depressive Disorder and other types of serious depressions are "long-lasting" and get in the way of a person's ability to work, study, sleep, and eat.

Signs and Symptoms of Major Depression

A person may have depression if five or more of the following symptoms are present for more than two weeks at any one time; this should be reported to a healthcare provider.

- Loss of interest or enjoyment in normal daily activities
- Persistent sad, anxious, or hopeless mood
- Irritability or nervousness
- Feelings of guilt, fear, or worthlessness
- Significant weight loss or gain due to appetite change
- Overtiredness and/or decreased energy
- Unable to sleep or too much sleep
- Unexplained crying spells
- Difficulty concentrating, remembering, and/or making decisions
- Little or no interest in companionship or sex
- Thoughts of death or suicide

If thoughts of suicide exist, or if symptoms get in the way of daily activities, one should seek treatment right away.

Who is at Risk for Depression?

Although depression can be triggered by personal problems, other factors also affect who becomes depressed. Often, a combination of risk factors are involved.

- **Heredity:** Some types of depression run in families. However, not everyone with a family history of depression will develop the disorder.
- **Gender:** Twice as many women as men experience depression.
- **Hormonal Changes:** Changing hormone levels, as in the post-partum period, may cause depression.
- **Alcohol and Drug Abuse**
- **Medications:** Certain drugs can cause depression, so it is important for patients to provide a complete list of medications to their health care provider.
- **Physical Disease:** Illnesses such as stroke, heart attack, cancer, Parkinson's disease, hormonal disorders and viral infections can cause depression.
- **Stress:** Traumatic experiences, such as the loss of a loved one, can trigger depression.

Other Types of Depression

Dysthymic Disorder (Dysthymia)

Dysthymic disorder is a milder, more chronic form of depression compared to major depressive disorder. A person may feel depressed one day and normal on another day. Although the symptoms are not as disabling, having dysthymia increases the risk of developing major depression.

Bipolar Disorder (Manic-Depressive Illness)

Bipolar disorder is described as recurring cycles of intense moods. A person may experience recurrent "high" moods (mania), very "low" moods (depression), or switching between these highs and lows. During the "highs", one may be too confident, very talkative, energetic, impulsive and take high risks. One may also get very little sleep, be very irritable, and make poor decisions. During the "lows", one may appear depressed and unable to concentrate.

Areas of the Brain Affected by Depression

Some areas of the brain are underactive in depression, while other areas are over-active. These changes contribute to the emotional and physical symptoms of depression.

Thalamus

Controls a person's degree of arousal and awareness, including sleep and hyperarousal. It stimulates the amygdala. The thalamus is highly active in people with depression.

Hypothalamus

Produces the neurotransmitters that are involved in mood and emotional expressions. Serotonin pathways in the hypothalamus help regulate mood and appetite while norepinephrine pathways help regulate emotions and energy level.

Amygdala

Responsible for negative feelings; it is highly active in people with depression.

Anterior cingulate cortex

Helps associate smells and sights with pleasant memories. It also has a role in emotional response to pain and the regulation of anger. This area is highly active in people with depression.

Prefrontal cortex

Involved in complex thinking, personality, and social behavior. Norepinephrine and serotonin are two neurotransmitters that affect mood in this part of the brain. Norepinephrine pathways impact attention span, concentration, memory, and information processing. There is decreased activity in the prefrontal cortex in depression.

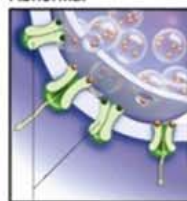
The Limbic System

Regulates emotions, instincts, motivations and sexual drive. It also plays a role in the body's response to stress. Any disturbances to the limbic system can affect mood and behavior.

The Role of Neurotransmitters

Neurotransmitters are chemicals that carry messages between the nerve cells (neurons); these affect behavior, mood, and thought. Depression is related to these chemical imbalances in the brain.

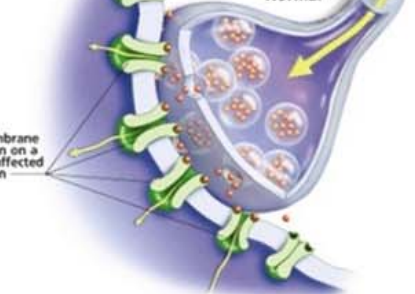
Abnormal



Closed membrane channels seen on a neuron affected by depression

With low levels of norepinephrine and serotonin neurotransmitters, membrane channels do not open, as a result, nerve messages are not passed on, and areas of the brain that affect emotions may not receive stimulation. This process may result in depression.

Normal



Opened membrane channels seen on a neuron not affected by depression

Suicide

People who are depressed are at higher risk for suicide. If a person feels life is not worth living, especially if one is thinking about ending his/her life, seek treatment immediately.

Any threat of suicide should be taken seriously. Contact a mental health professional or suicide hotline immediately if you experience any of the following danger signs.

- Facing, nervous behavior, frequent mood changes
- This symptoms by itself is not an emergency or suggestive of being suicidal
- Actions or threats of physical harm or violence
- Threats of talking of death or suicide
- Withdrawal from activities and relationships
- (By itself, this is not an emergency)
- Giving away prized possessions or saying goodbye to friends
- A sudden brightening of mood after a period of severe depression
- Unusually risky behavior

Treatment

Depression can almost always be treated effectively. Certain medications and medical conditions can also cause the same symptoms as depression; the diagnosis of depression must be made by a health professional. If depression is diagnosed, treatment can include one or more of the following:

Antidepressants

These medications rebalance key chemicals, neurotransmitters, in the brain and take time to work. Neurotransmitters are required for the brain to function normally. A variety of antidepressants may be tried before finding the treatment that may work best for you.

Counseling (Psychotherapy)

Counseling involves talking with a trained mental health professional. It helps people gain insight into their feelings and learn how to deal with them, change behaviors, and resolve problems.

Mood Stabilizers

These medications help soothe mood swings. Many people with bipolar disorder may take mood stabilizers to "even out" their moods.

Alternative Therapies

• **Herbal therapy** may have a beneficial effect on mild cases of depression. Talk to your healthcare provider before taking any herbal or dietary supplement.

• **Regular Exercise** can ease the symptoms of mild depression. Research indicates that physical activity has a positive effect on brain chemicals, which can improve mood and sense of well-being.