Depression
by Kimberly Mast
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Biological causes of clinical depression continue to be studied extensively. Great progress has been made in the understanding of brain function, the influence of neurotransmitters and hormones, and other biological processes, as well as how they may relate to the development of depression.

The brain is the "command center" of the human body. It controls the basic functions of our bodies, our movements, and our thoughts and emotions. Researchers studying clinical depression tend to look at several aspects of brain function including the structures of the limbic system and the function of neurotransmitters within neurons.

Those who research clinical depression have been interested in a particular part of the brain called the limbic system. This is the area of the brain that regulates activities such as emotions, physical and sexual drives, and the stress response. There are various structures of the limbic system that are of particular importance. The hypothalamus is a small structure located at the base of the brain. It is responsible for many basic functions such as body temperature, sleep, appetite, sexual drive, stress reaction, and the regulation of other activities. The hypothalamus also controls the function of the pituitary gland, which in turn regulates key hormones. The activities of the limbic system are so important and complex that disturbances in any part of it, including how neurotransmitters function, could affect your mood and behavior.

To understand what happens in the brain when a person becomes clinically depressed, it is first important to learn a bit about the function of neurons and neurotransmitters. Within the brain, there are special chemicals called neurotransmitters that carry out many very important functions. Essentially, they help transfer messages throughout structures of the brain's nerve cells. Whenever we do anything, react, feel emotions, think, our neurons transmit messages in the form of electrical impulses from one cell to another.

It is unknown whether changes in levels of neurotransmitters cause the development of depression or depression causes changes in neurotransmitters. It may happen both ways. Researchers believe that our behavior can affect our brain chemistry, and that brain chemistry can affect behavior. If a person experiences numerous stressors or traumas this may cause his or her brain chemistry to be affected, leading to clinical depression. That same person may learn how to change depressed thoughts and behavior and cope with stressful events. Doing this may also change brain chemistry and relieve depression.