

## **What Is Bipolar Disorder?**

Bipolar disorder, also known as manic-depressive illness, is a brain disorder that causes unusual shifts in mood, energy, activity levels, and the ability to carry out day-to-day tasks. Symptoms of bipolar disorder are severe. They are different from the normal ups and downs that everyone goes through from time to time. Bipolar disorder symptoms can result in damaged relationships, poor job or school performance, and even suicide. But bipolar disorder can be treated, and people with this illness can lead full and productive lives.

## **Causes Of Bipolar**

Scientists are studying the possible causes of bipolar disorder. Most scientists agree that there is no single cause. Rather, many factors likely act together to produce the illness or increase risk.

### **Genetics**

Bipolar disorder tends to run in families. Some research has suggested that people with certain genes are more likely to develop bipolar disorder than others. Children with a parent or sibling who has bipolar disorder are much more likely to develop the illness, compared with children who do not have a family history of bipolar disorder. However, most children with a family history of bipolar disorder will not develop the illness.

Scientists are also studying illnesses with similar symptoms such as depression and schizophrenia to identify genetic differences that may increase a person's risk for developing bipolar disorder. Finding these genetic "hotspots" may also help explain how environmental factors can increase a person's risk.

But genes are not the only risk factor for bipolar disorder. Studies of identical twins have shown that the twin of a person with bipolar illness does not always develop the disorder, despite the fact that identical twins share all of the same genes. Research suggests that factors besides genes are also at work. It is likely that many different genes and environmental factors are involved. However, scientists do not yet fully understand how these factors interact to cause bipolar disorder.

### **Brain structure and functioning**

Brain-imaging tools, such as functional magnetic resonance imaging (fMRI) and positron emission tomography (PET), allow researchers to take pictures of the living brain at work. These tools help scientists study the brain's structure and activity.

Some imaging studies show how the brains of people with bipolar disorder may differ from the brains of healthy people or people with other mental disorders.

MRI studies found that the brain's prefrontal cortex in adults with bipolar disorder tends to be smaller and function less well compared to adults who don't have bipolar disorder. The prefrontal cortex is a brain structure involved in "executive" functions such as solving problems and making decisions. This structure and its connections to other parts of the brain mature during



adolescence, suggesting that abnormal development of this brain circuit may account for why the disorder tends to emerge during a person's teen years. Pinpointing brain changes in youth may help us detect illness early or offer targets for early intervention.

The connections between brain regions are important for shaping and coordinating functions such as forming memories, learning, and emotions, but scientists know little about how different parts of the human brain connect. Learning more about these connections, along with information gained from genetic studies, helps scientists better understand bipolar disorder. Scientists are working towards being able to predict which types of treatment will work most effectively.

## Signs & Symptoms

People with bipolar disorder experience unusually intense emotional states that occur in distinct periods called "mood episodes." Each mood episode represents a drastic change from a person's usual mood and behavior. An overly joyful or overexcited state is called a manic episode, and an extremely sad or hopeless state is called a depressive episode. Sometimes, a mood episode includes symptoms of both mania and depression. This is called a mixed state. People with bipolar disorder also may be explosive and irritable during a mood episode.

Extreme changes in energy, activity, sleep, and behavior go along with these changes in mood. Symptoms of bipolar disorder are described below.

Symptoms of mania or a manic episode include:	Symptoms of depression or a depressive episode include:
<p style="text-align: center;"><b><u>Mood Changes</u></b></p> <p>A long period of feeling "high," or an overly happy or outgoing mood &amp; Extreme irritability</p> <p style="text-align: center;"><b><u>Behavioral Changes</u></b></p> <ul style="list-style-type: none"> <li>• Talking very fast, jumping from one idea to another, having racing thoughts</li> <li>• Being easily distracted</li> <li>• Increasing activities, such as taking on new projects</li> <li>• Being overly restless</li> <li>• Sleeping little or not being tired</li> <li>• Having an unrealistic belief in one's abilities</li> <li>• Behaving impulsively and engaging in pleasurable, high-risk behaviors</li> </ul>	<p style="text-align: center;"><b><u>Mood Changes</u></b></p> <p>An overly long period of feeling sad or hopeless Loss of interest in activities once enjoyed, including sex.</p> <p style="text-align: center;"><b><u>Behavioral Changes</u></b></p> <ul style="list-style-type: none"> <li>• Feeling tired or "slowed down"</li> <li>• Having problems concentrating, remembering, and making decisions</li> <li>• Being restless or irritable</li> <li>• Changing eating, sleeping, or other habits</li> <li>• Thinking of death or suicide, or attempting suicide.</li> </ul>