What are the risk factors for bipolar disorder?

Scientists are learning about 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, so researchers are looking for genes that may increase a person's chance of developing the illness. Genes are the "building blocks" of heredity. They help control how the body and brain work and grow. Genes are contained inside a person's cells that are passed down from parents to children. Children with a parent or sibling who has bipolar disorder are four to six times 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. Genetic research on bipolar disorder is being helped by advances in technology. This type of research is now much quicker and more far-reaching than in the past. One example is the launch of the Bipolar Disorder Phenome Database, funded in part by NIMH. Using the database, scientists will be able to link visible signs of the disorder with the genes that may influence them. So far, researchers using this database found that most people with bipolar disorder had:

- Missed work because of their illness
- Other illnesses at the same time, especially alcohol and/or substance abuse and panic disorders
- Been treated or hospitalized for bipolar disorder.

The researchers also identified certain traits that appeared to run in families, including:

- History of psychiatric hospitalization
- Co-occurring obsessive-compulsive disorder (OCD)
- Age at first manic episode
- Number and frequency of manic episodes.

Scientists continue to study these traits, which may help them find the genes that cause bipolar disorder some day.

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. This is important because identical twins share all of the same genes. The study results suggest factors besides genes are also at work. Rather, it is likely that many different genes and a person's environment are involved. However, scientists do not yet fully understand how these factors interact to cause bipolar disorder.
Brain structure and functioning

Brain-imaging studies are helping scientists learn what happens in the brain of a person with bipolar disorder.\textsuperscript{14, 15} Newer 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. For example, one study using MRI found that the pattern of brain development in children with bipolar disorder was similar to that in children with "multi-dimensional impairment," a disorder that causes symptoms that overlap somewhat with bipolar disorder and schizophrenia.\textsuperscript{16} This suggests that the common pattern of brain development may be linked to general risk for unstable moods.

Learning more about these differences, along with information gained from genetic studies, helps scientists better understand bipolar disorder. Someday scientists may be able to predict which types of treatment will work most effectively. They may even find ways to prevent bipolar disorder.