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## The Causes of ADHD

A multitude of research studies have examined the causes of ADHD. Even with this wealth of data, experts remain uncertain as to the exact cause of the disorder. At this point, the research suggests that ADHD is primarily a neurological or brain-based disorder that is either present at birth, or that develops early on in childhood. Although environmental factors can play a role in increasing the severity of a person's symptoms, the environment does not seem to be the primary cause of the disorder.

### **Diathesis-Stress Theory**

Although the consensus among the majority of mental health professionals is that ADHD is a neurological disorder, there are still some researchers who believe that environmental factors play a causal role. In mental health fields, the Diathesis-Stress Theory is used to explain the development of mental illnesses by focusing on the presence of an inherited weakness or vulnerability (the diathesis) and its interaction with environmental factors (i.e., stressors). According to this theory, some people have inherited a greater vulnerability, or a tendency towards the development of particular disorders than other people. Certain environmental stressors trigger the expression of the diathesis, and therefore, a person shows the symptoms of a particular illness.

The Diathesis-Stress Theory is a well-established theory used to explain why individuals develop mental illnesses such as depression and schizophrenia. However, this theory may be less relevant to the explanation of why someone develops ADHD. It does not seem to be the case that individuals inherit a tendency/predisposition toward developing ADHD. Rather, it seems that the disorder is present at birth or very early on in an individual's life. Environmental factors, rather than serving a causal or "triggering" role, can contribute to the severity of ADHD symptoms expressed.

Because biological factors seem to be most important in describing why someone develops ADHD, we present these variables first. We then follow up with a description of environmental factors that may contribute to the severity of symptoms.

### **Genetics**

It is becoming increasingly evident that genes play a powerful role in the development of impulsiveness, hyperactivity, and inattention. The estimated heritability (the proportion of variance in a trait that can be attributed to genetics) of ADHD ranges from 75 to 91%. In other words, biological relatives seem to pass on the same or similar symptoms to their relatives. Twin studies also suggest a genetic basis for ADHD. Concordance rates (the occurrence of similar traits) are higher among monozygotic (identical twin) pairs (58-82%) than dizygotic (fraternal twin) pairs (31%-38%). In addition, in twin pairs where one person has ADHD, the "normal" twin also frequently shows problems in his or her ability to inhibit behavior (e.g., stop a response). Even though there is a clear genetic basis for ADHD, exactly which genes cause the disorder is unclear. Research suggests that most likely multiple genes are the culprits.