



## **What About Genetics?** <sup>[1]</sup>

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There is always a "Nature/Nuture" debate in most psychological fields, and fear and anxiety are no exception. Here we'll wade into what science says about the genetics of these emotions.

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First, it erects a mental block to truly understanding your condition. Saying "This is how I am" puts an inevitable spin on the anxiety you're feeling and your patterns of behavior. Believing in the obdurate, unchanging nature of who you are is what psychologists call a "fixed mindset" <sup>[3]</sup>. " If you truly feel that your anxiety is integral to who you are as a person, you will be less inclined to think that you can work to change how you approach your anxiety. You may resign yourself to "suffer through it" or "just live with it." Anxiety is always negotiable.

Second, anxiety is an emotional reaction to imagined challenge or danger, where anxiety disorders or chronic anxiety can take many forms. Thinking of anxiety as some monolithic thing that controls your life is not just psychologically taxing, it actually does not align with research into the heredity/genetics of anxiety.

Let's take a look at what science has to say about the nature/nurture debate surrounding anxiety.

### **Is Anxiety Genetic?**

The short answer is "No." As stated, anxiety is not a single measurable trait <sup>[4]</sup>, but an umbrella term for many kinds of disorders.

A distinction should be made here. Is the fear response (the "fight, flight, or freeze" cycle) genetic? Yes. Our bodies have inherited this physiological response over millennia of evolution. Every human being is coded to react to threats, real or imagined, in the same neurobiological manner.

But can you inherit Generalized Anxiety Disorder (GAD) <sup>[5]</sup>, Obsessive-Compulsive Disorder (OCD) <sup>[6]</sup>, or an above-average anxious disposition? Not directly. To understand this, we need

first to understand what genetic predispositions are and how they differ from simply "receiving" a genetic disorder from your parents.

## An Anxious Predisposition

The distinction and relationship between what is "genetic" and what is "predisposed" is essential, here. Consider a truly heritable **genetic trait**—attached or unattached earlobes. The expression of this trait is entirely contingent on which specific genes you inherit from your parents and which ultimately are activated (phenotypically expressed) in your genetic code.

A **predisposition** is more the chance, the probability, that other genetic/hereditary traits you have may make you more likely to experience certain conditions later in life. The complex weave of other genetic traits you have, and the interplay of your environment on those traits, leads to a higher risk for developing certain conditions. Anxiety disorders by and large fall into this category—in other words, there is not a dominant "anxiety gene" that turns on or off in people who develop anxiety disorders.

Currently, scientists are in the process of identifying certain genetic markers [7] that may make people more prone (predisposed) to acquire anxiety disorders. Thus far [8] it appears that panic-related disorders, agoraphobic tendencies (fear of public spaces), and a small group of specific phobias are most closely linked to identifiable genetic configurations. It also appears that perhaps 30% - 40% of a person's predisposition toward developing anxiety disorders can be explained through genetic predispositions, the other 60% left to environmental risk factors.

## The Role of Environment

Speaking of, what are "environmental risk factors?"

You've likely heard the term "Nature vs. Nurture." This refers to the notion that certain health- and psychology-related conditions may be more the product of nature—your genetics—or of nurture—the environment and experiences that have shaped you. These debates can become maze-like and complex [9], and many positive and negative characteristics of personality and behavior are a combination of these two concepts.

Where anxiety is concerned, there are many environmental risk factors that can work together to evoke, or trigger, a person's predisposition toward stress or anxiety conditions. In a sense, think of these risk factors as events that, if present and persistent in a person's life and throughout their development, increase the risk that those complex predispositions activate and make susceptibility to anxiety disorders more likely. It's not a one-to-one relationship the way completely hereditary traits are, but a game of odds and circumstances.

Here is a short list of environmental risk factors that have been scientifically shown to increase the odds of a person predisposed to anxiety developing a disorder:

- **Stress** – Long-term and emotionally scarring stress, especially. Your reactions, thoughts, and behaviors when under duress and their subsequent reinforcement.
- **Upbringing** – Studies show [10] that children who develop panic disorder before age 20 are more likely to have parents who have the condition or another related anxiety disorders. By no means an "anxiety sentence," evidence still suggests that anxiety

disorders are more common in people whose parents also suffer from them.

- **Trauma, Abuse, & Neglect** – Early experiences with trauma, foul parenting, or lack of strong, healthy social support increase the predispositional expression of anxiety. People raised in low-income households and who lack healthy lifestyles are also more vulnerable.
- **Other Anxiety Disorders** – Panic attacks <sup>[11]</sup>, depression <sup>[12]</sup>, PTSD, and insomnia are all debilitating and stressful anxious conditions. If you suffer from any one of them, you are more likely to develop other anxiety disorders.

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[4] <http://www.everydayhealth.com/news/is-anxiety-hereditary/>

[5] <https://explorable.com/general-anxiety-disorder-gad>

[6] <https://explorable.com/obsessive-compulsive-disorders>

[7] <http://www.fearcourse.com/Articles/is-anxiety-hereditary.html>

[8] <http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/psychiatry-psychology/anxiety-disorder/Default.htm>

[9] <https://www.psychologytoday.com/blog/mouse-man/200811/gene-anxiety-depression-and-posttraumatic-stress-disorder-fkbp5>

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