

Causes of Huntington's Disease

Welcome to the Causes of HD. This section discusses some of the mechanisms that are thought to lead up to the observed symptoms of Huntington's disease. *It is important to understand that none of the biological mechanisms discussed in the chapters here are single-handedly responsible for "[causing](#)" HD.* Rather, they are all components of a larger interplay of biological effects that can lead to HD in certain individuals. The first two chapters in particular are especially good starting points for readers who are looking for a solid foundational understanding of Huntington's disease.

Chapters:

- [The Inheritance of Huntington's Disease](#)
- [The Neurobiology of Huntington's Disease](#)
- [Huntingtin Protein and Protein Aggregation](#)
- [All About Mutations](#)
- [Population Genetics](#)

A Note on the Term "Cause"

Within this web site, the term “cause” is synonymous with “explanation”. That is, a cause is an explanation, or a partial explanation, of why something (such as HD) occurs.

Diseases are complex processes, and individuals with HD have many diverse experiences with the disease. Just as there is no single “HD experience” (exact age of onset, severity of symptoms, etc.), there is no single cause of HD. Despite the fact that a single gene is the major factor determining whether or not an individual will get HD, other factors play a role in an individual’s particular disease experience. Although genes predispose individuals to diseases, it is the combination of genes and environment (including the internal environment of an individual’s body) that leads to the particular disease experience of an individual. Thus, there is not one cause of HD; instead, each person’s experience with the disease has many explanations.