

# Ataxia Caused by Traumatic Brain Injury

## What is ataxia caused by traumatic brain injury?

A Traumatic Brain Injury can sometimes result in difficulties with balance, coordination, and speech. This condition is called ataxia. Ataxia caused by Traumatic Brain Injury is an acquired form of ataxia, meaning that the ataxia symptoms are the result of an injury or illness.

A Traumatic Brain Injury (TBI) is an injury by an external force that affects how the brain works. This happens when the head hits something, something hits the head, or a jolt suddenly causes movement in the brain. Common causes of TBI include falls, motor vehicle accidents, sports, assault, and combat.

Anyone can have a TBI. TBI may be classified as mild, moderate, or severe depending on how intense the initial injury is. Mild TBI is more commonly referred to as a concussion. Sometimes people with TBI develop ataxia, depending on what areas of the brain were injured.

People with other forms of Ataxia usually have worsening symptoms following a TBI. There is limited research on how Traumatic Brain Injury impacts those who already have issues with their cerebellum.

## What are the symptoms of ataxia caused by TBI?

TBI symptoms can vary between different people. Common symptoms of TBI may include loss of consciousness, vomiting, fatigue, slurred speech, and memory loss. Symptoms may appear immediately, but they could also start hours or days after the injury. It is important to get to a hospital as quickly as possible if you suspect someone has had TBI.

Long-term Ataxia symptoms caused by TBI can vary. It depends on what regions of the brain were injured. Three main groups of symptoms can happen – motor, vestibular, and cognitive.

Motor symptoms include problems with balance, coordination, and dexterity. Vestibular symptoms include trouble with eye movement (such as blurry, shaky, jumpy, or double vision), as well as dizziness and vertigo. Cognitive symptoms include changes in intellectual sharpness, emotional regulation, and social awareness.

## What is the prognosis for ataxia caused by TBI?

For mild TBI, most people have symptoms decrease 2-3 weeks after their injury. In some cases, symptoms persist for longer. It can be hard to predict how ataxia caused by TBI will progress over time. This is due to the variability of symptoms. However, with proper support and treatment, improvement is possible.

There are also rehabilitation strategies to help treat ataxia symptoms, including exercise, physical therapy, occupational therapy, and speech therapy. Medications may also help treat motor, vestibular, and cognitive symptoms.



### **How is the diagnosis made?**

A neurologic examination can determine whether a person has TBI and/or Ataxia symptoms. This testing is usually done by a family doctor, emergency room doctor, or neurologist. Some community programs train people to recognize the first signs of TBI, such as sports coaches, life guards, or teachers. It is important to go to the hospital to confirm a TBI diagnosis with a medical professional.

Due to the variety of TBI symptoms, follow up testing may look different from individual to individual. Some potential follow-up tests include MRI brain imaging or CT brain imaging.

### **What kind of support is available after the diagnosis?**

The National Ataxia Foundation (NAF) is committed to providing information and education about Ataxia, support groups for those affected by Ataxia, and promoting and funding research to find the cause for the various forms of Ataxia, better treatments, and, hopefully someday, a cure. NAF has been at the forefront funding promising worldwide research to find answers.

As Ataxia research moves into the clinical phase, pharmaceutical companies will begin recruiting participants for clinical trials. Individuals with Ataxia or who are at-risk for Ataxia are encouraged to enroll in the CoRDS Ataxia Patient Registry. To access the Registry, go to NAF's website [www.ataxia.org](http://www.ataxia.org) and click on the "Enroll in the Patient Registry" tab and follow the directions on the CoRDS website.

NAF provides accurate information for you, your family, and your physician about Ataxia. Please visit the NAF website at [www.ataxia.org](http://www.ataxia.org) for additional information, including a listing of ataxia support groups, physicians who treat Ataxia, social networks, and more. For questions contact the NAF directly at (763) 553-0020 or [naf@ataxia.org](mailto:naf@ataxia.org).