

What is Ataxia?

The word “Ataxia” refers to clumsiness or a loss of balance and coordination that is not due to muscle weakness. Ataxia is not a specific disease, but rather a symptom of many diverse conditions that affect the nervous system. People affected by Ataxia may experience problems with using their fingers and hands, arms or legs, walking, speaking or moving their eyes. This loss of coordination may be caused by a number of conditions. For this reason, it is important that a person with Ataxia seek medical attention to determine the underlying cause of the symptom and to receive the appropriate treatment.

What causes Ataxia?

Damage to different parts of the nervous system can cause Ataxia but many cases are caused by damage to a part of the brain called the cerebellum, which serves as the balance and coordination center. The cerebellum assists in muscle coordination and helps maintain balance while walking or performing other movements. The cerebellum also helps to coordinate eye movements, speech and swallowing.

Ataxia may also be caused by dysfunction of the pathways leading into and out of the cerebellum. Information comes into the cerebellum from the spinal cord, inner ear and other parts of the brain and signals from the cerebellum go out to the spinal cord and to the brain. People with damage to the inner ear or loss of feeling in their feet may also notice clumsiness or poor coordination, as these systems are also very important to maintaining balance and their damage also leads to Ataxia.

How does a physician diagnose Ataxia?

A physician (typically a neurologist) will perform an examination which can often determine whether the Ataxia is caused by impairment in the cerebellum, its associated pathways or other parts of the nervous system.

Blood tests and imaging, including an MRI of the brain, can show whether the cerebellum or nearby parts of the brain or spinal cord have been affected by a stroke, tumor, infection or other degenerative disease that can cause Ataxia. Genetic testing is available for many types of Ataxia. You can assist the physician in making a diagnosis by describing all of your symptoms, being accurate about the dates and details of your medical history and by collecting information about your family history. Keep copies of all your medical and imaging records and bring them with you for your physician to review.

Below is a list of some of the many medical and neurological conditions that can cause Ataxia to appear suddenly:

- Head trauma
- Stroke
- Brain hemorrhage
- Certain viral infections
- Exposure to certain drugs or toxins (alcohol, some drugs or medications)

Here is the list of some of the many medical and neurological conditions that can cause Ataxia to appear more gradually:

- Problems with the liver, kidney, or thyroid
- Deficiencies of certain vitamins (especially Vitamin E or Vitamin B12)
- Exposure to drugs or toxins (heavy metals, alcohol, certain drugs)
- Sensitivity to gluten (wheat, rye and barley)
- Diabetes
- Multiple Sclerosis
- Neurosyphilis (Tabes Dorsalis)
- Problems with the immune system
- Hidden cancers
- Various genetic disorders

The list of conditions that the physicians must think about as causes of Ataxia is extremely long. Proper diagnosis may require a number of examinations, blood tests, MRIs and other studies. It is recommended that patients see a physician who specializes in Ataxia.

How is Ataxia and its symptoms treated?

There is no medicine which specifically treats Ataxia. If the cause of Ataxia can be identified, in some cases, it may be modifiable or treatable. Most genetic causes are not yet treatable, but research into these disorders continues to make advances which may find treatments or cures in the future.

At this time, the primary goal of treatment is to improve the quality of life through education and medical treatment of specific symptoms. Exercise is very helpful in maintaining and improving balance. Other treatments typically involve physical, occupational and speech therapy and, in some cases, the use of adaptive devices to allow the individual with Ataxia to remain as independent as possible.

Devices to assist with writing, eating and self-care as well as communication devices, may be helpful for those with impaired speech. Many individuals with Ataxia may have other symptoms which can include tremor, stiffness, depression, spasticity and sleep disorders. Medication or other therapies might be appropriate for some of these symptoms so it is important to let your doctor know about all of your symptoms.

How does the National Ataxia Foundation help?

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 of funding promising worldwide research to find answers.

Ataxia research has moved into the clinical phase, and pharmaceutical companies have begun 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 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 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

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