Ataxia

Ataxia is the loss of control of bodily movement due to impairment in the nervous system. The patient may have a wide-based, unsteady walk or poor coordination of the arms and legs. Ataxia may be caused by a problem in the cerebellum (the part of the brain that controls coordination), the spinal cord and nerves (which control body movement), or the inner ear vestibular system (which maintains balance). Ataxia can also be caused by a stroke (https://www.radiologyinfo.org/en/info/stroke) . The appropriate imaging of ataxia depends on the suspected cause.

When ataxia occurs after head injury (https://www.radiologyinfo.org/en/info/headinjury) , CT scan (https://www.radiologyinfo.org/en/info/headct) of the brain without intravenous (IV) contrast is usually an appropriate initial imaging test. If there is vertigo, CT of the inner ear (temporal bone) may be appropriate. If blood vessel damage is suspected, CT or MR of the arteries or veins may be appropriate. MRI of the brain (https://www.radiologyinfo.org/en/info/mri-brain) (https://www.radiologyinfo.org/en/info/fmribrain) may be appropriate if injury to the lower part of the brain is suspected.

When ataxia occurs after injury to the spine, CT scan (https://www.radiologyinfo.org/en/info/spinect) or MRI of the spine (https://www.radiologyinfo.org/en/info/spinemr) without IV contrast or CT of the arteries of the neck with IV contrast is usually appropriate.

When ataxia occurs without a history of injury and a stroke is not suspected, the cause may be a brain tumor. MRI of the brain is usually appropriate. IV contrast may be helpful.

When ataxia occurs without a history of injury and a problem in the spine or spinal blood vessels is suspected, MRI of the spine is usually appropriate.

For more information, see the Movement Disorders (https://www.radiologyinfo.org/en/info/movement-disorders) page.

— By Susan Anemone and Nina S. Vincoff, MD. This information originally appeared in the *Journal of the American College of Radiology*.

Disclaimer

This information is copied from the RadiologyInfo Web site (http://www.radiologyinfo.org) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at **http://www.radiologyinfo.org** to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple

distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright ® 2026 Radiological Society of North America, Inc.