

Fact sheet

Acute flaccid myelitis (AFM)

What is acute flaccid myelitis?

Acute flaccid myelitis (AFM) is a syndrome that affects the nervous system, specifically the spinal cord, which can result from a variety of causes, including viral infections.

How is AFM spread?

Acute flaccid myelitis can be caused by a variety of germs, including several viruses:

- Enteroviruses (polio and non-polio)
- West Nile virus (WNV)
- Viruses in the same family as WNV, specifically Japanese encephalitis virus and Saint Louis encephalitis virus
- Herpesviruses, such as cytomegalovirus and Epstein-Barr virus, and
- Adenoviruses.

AFM is one of a number of conditions that can result in neurologic illness with limb weakness. Such illnesses can result from a variety of causes, including viral infections, environmental toxins, genetic disorders, and Guillain-Barre syndrome, a neurologic disorder caused by an abnormal immune response that attacks the body's nerves. Despite extensive laboratory testing, a cause for AFM is often unable to be identified.

What are the signs and symptoms of AFM?

Most patients will have sudden onset of limb weakness and loss of muscle tone and reflexes. Some patients, in addition to the limb weakness, will experience:

- Facial droop/weakness,
- Difficulty moving the eyes,
- Drooping eyelids, or
- Difficulty with swallowing or slurred speech

Numbness or tingling is rare in patients with AFM, though some patients have pain in their arms or legs. Some patients with AFM may be unable to pass urine. The most severe symptom of AFM is respiratory failure that can happen when the muscles involved with breathing become weak. This can require urgent ventilator support (breathing machines).

How long after infection do symptoms appear?

While a specific time period for onset of illness has not been determined, onset of limb weakness in children diagnosed with AFM is generally abrupt, with rapid progression to the lowest point of weakness within hours to a few days.

Who is most at risk?

Most cases of AFM have been identified in children less than 21 years of age. While several cases coincided with a national outbreak of severe respiratory disease among children caused by enterovirus D68 (EV-D68), there is no direct evidence that enterovirus D68 in children causes AFM.

What type of health problems are caused by AFM?

The full range of illness that may present as AFM, such as acute transverse myelitis or Guillain-Barré syndrome, is unknown.

However, the following symptoms are associated with AFM:

- Rapid onset of weakness in one or more limbs
- Distinct abnormalities of the spinal cord gray matter
- Elevated white blood cell counts
- Elevated blood protein levels, and
- Respiratory disease and fever.

How is AFM diagnosed?

AFM is diagnosed based on a combination of clinical symptoms and specific laboratory or magnetic resonance imaging (MRI) results.

How is AFM treated?

There are currently **no** targeted therapies or interventions in the treatment or management of AFM. Treatment and management of care for children with AFM is based on general routine clinical management of children with severe neurologic disease. Physical and occupational therapy may be used as soon as the child is physically stable.

How can AFM be prevented?

- Be up to date on all recommended vaccinations, including poliovirus.
- Protect yourself from mosquito-borne viruses such as West Nile virus—another known cause of acute flaccid myelitis— by using mosquito repellent and staying indoors at dusk and dawn.
- Wash your hands often with soap and water.
- Avoid close contact with sick people.
- Clean surfaces with a disinfectant, especially those that a sick person has touched.

Where can I get more information?

- Your personal healthcare provider
- Your [local health department](#)
- [Utah Department of Health and Human Services](#)
- [Centers for Disease Control and Prevention \(CDC\)](#)