

Frequently Asked Questions

What is Powassan (POW) virus?

Powassan (Poh-whas-sin) virus is a rare disease that is spread by the bite of an infected tick. The virus is named after Powassan, Ontario, where it was first discovered in 1958. Approximately 75 cases of POW virus were reported in the United States over the past 10 years.

How do people get infected with POW virus?

A person becomes infected with POW virus if they are bitten by an infected tick. POW virus is not spread directly from person to person. There are two types of ticks that may spread POW virus:

- The woodchuck tick (*Ixodes cookei*)
- The black-legged or deer tick (*Ixodes scapularis*)

The deer tick is found across New Jersey and it is likely that this species is spreading POW in the region.

How long does it take for symptoms to appear after being bitten by an infected tick?

Some people do not show symptoms at all. However, symptoms may show up one week to one month after being bitten by an infected tick. The infected tick needs to be attached to a person for a certain amount of time before it may transmit POW virus. The timeframe needed for POW virus is not known, but it is thought to be less than the time needed for other tick-borne illnesses such as Lyme disease (24-48 hours) and anaplasmosis (12-24 hours).

What are symptoms of POW virus?

Many people who are infected with POW virus do not develop any symptoms. Others who become infected with POW virus may have the following symptoms:

- Fever
- Headache
- Swelling of the brain (encephalitis)
- Swelling of the membranes that surround the brain and spinal cord (meningitis)
- Vomiting
- Weakness
- Confusion
- Loss of coordination
- Trouble speaking
- Memory loss

Who is at risk for getting infected with POW virus?

Anyone bitten by an infected deer tick or woodchuck tick in an area where the virus is found may get infected with POW virus. The risk is highest for people who live, work or play in wooded areas, because of greater contact to potentially infected ticks.

Where and when are most cases of POW virus disease located?

Most cases of POW virus have occurred in the northeastern and Great Lakes regions of the United States during the spring and summer, and through mid-fall when ticks are most active. New Jersey confirmed its first case of POW virus in 2013. As of 2016, 3 cases of POW have been reported in New Jersey.

How does New Jersey know when there are cases of POW?

Healthcare providers and health laboratories in New Jersey are required to report cases of certain diseases. POW virus is reportable in New Jersey and falls under the category of "Arboviral disease," which means diseases that are from mosquitoes. In this case, the term arboviral disease is a little misleading since POW virus is transmitted from infected ticks. The New Jersey Department of Health works with local health departments and health care providers to assist with testing and interpreting test results.

How is POW diagnosed?

Diagnosis is based on a combination of signs and symptoms and lab tests of blood or spinal fluid. These tests typically detect antibodies that the immune system makes against the viral infection. Your health care provider may wish to consult with the New Jersey Department of Health regarding testing options.

What is the treatment for POW virus?

There is no specific medicine or vaccine to cure or treat POW virus. Treatment for severe illnesses may include hospitalization, respiratory support, and intravenous (IV) fluids.

How can I reduce the risk of getting POW virus?

The best way to prevent POW virus is to protect yourself and loved ones from tick bites.

- Avoid contact with ticks by avoiding wooded areas with high grass.
 - When hiking, stay on the center of the trail
 - Picnic in areas away from wooded and bushy areas
 - Keep children on playground equipment and away from tall grass and shrubs
- When outdoors, apply insect repellents.
 - Permethrin is a tick repellent and can be applied to clothes and gear to keep ticks from attaching
 - DEET is a mosquito repellent and can be applied to the skin to keep mosquitoes from biting
- Wear clothes that protect against tick bites when outdoors.
 - Wear light-colored clothes so it is easy to see and remove ticks
 - Wear long-sleeve shirts and pants
 - Tuck long pants into socks so ticks cannot crawl under pants
 - Do tick checks every couple hours while outdoors and before coming indoors
 - If you see a tick during tick checks, remove it right away
- Make your yard unattractive to ticks and animals that carry ticks
 - Keep grass mowed short
 - Keep children's toys, playground equipment, pools and lawn furniture at least 15 feet from wooded areas
 - Create a woodchip or mulch border between your yard and wooded areas
 - Keep areas under bird feeders and pet dishes clean, so it does not attract animals that may carry ticks
 - Keep trash in closed containers or areas so it does not attract animals that may carry ticks

What should I do if I think a family member might have POW virus?

If you are concerned that someone you know might have POW virus, contact your health care provider.

Where can I get more information on POW virus?

- Your health care provider
- Your local health department
- NJ Department of Health <http://www.nj.gov/health>
- Centers for Disease Control & Prevention <http://www.cdc.gov>

This information is intended for educational purposes only and is not intended to replace consultation with a health care professional. Adapted from Centers for Disease Control and Prevention and the Minnesota Department of Health.

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