

# Viral Meningitis

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Meningitis is an inflammation of the tissue that covers the brain and spinal cord. Viral meningitis is the most common type of meningitis. It is often less severe than bacterial meningitis, and most people usually get better on their own (without treatment). However, infants younger than 1 month old and people with weakened immune systems are more likely to have severe illness.

## Causes

Non-polio enteroviruses (<http://www.cdc.gov/non-polio-enterovirus/index.html>) are the most common cause of viral meningitis in the United States, especially from summer to fall when these viruses spread most often. However, only a small number of people who get infected with enteroviruses will actually develop meningitis.

Other viruses that can cause meningitis are

- Mumps virus (<http://www.cdc.gov/mumps/>)
- Herpesviruses, including , herpes simplex viruses, and varicella-zoster virus (which causes chickenpox (<http://www.cdc.gov/chickenpox/>) and shingles (<http://www.cdc.gov/shingles/>))
- Measles virus (<http://www.cdc.gov/measles/>)
- Influenza virus (<http://www.cdc.gov/flu/>)
- Arboviruses, such as West Nile virus (<http://www.cdc.gov/westnile/>)
- Lymphocytic choriomeningitis virus (<http://www.cdc.gov/vhf/lcm/>)

# People at Risk

You can get viral meningitis at any age. However, some people have a higher risk of getting the disease, including

- children younger than five years old, and
- people with weakened immune systems caused by diseases, medications (such as chemotherapy), and recent organ or bone marrow transplantations.

Infants younger than 1 month old and people with weakened immune systems are more likely to have severe illness.

## Transmission

If you have close contact with a person who has viral meningitis, you may become infected with the virus that made that person sick. However, you are not likely to develop meningitis as a complication of the illness.

Viruses that can cause meningitis spread in different ways. Learn more about how the following viruses spread by visiting CDC's websites:

- [Non-polio enteroviruses \(http://www.cdc.gov/non-polio-enterovirus/about/transmission.html\)](http://www.cdc.gov/non-polio-enterovirus/about/transmission.html)
- [Mumps virus \(http://www.cdc.gov/mumps/about/transmission.html\)](http://www.cdc.gov/mumps/about/transmission.html)
- Herpesviruses, including [Epstein-Barr virus \(http://www.cdc.gov/epstein-barr/about-ebv.html\)](http://www.cdc.gov/epstein-barr/about-ebv.html), herpes simplex viruses, and varicella-zoster virus
- [Measles virus \(http://www.cdc.gov/measles/about/transmission.html\)](http://www.cdc.gov/measles/about/transmission.html)
- [Influenza virus \(http://www.cdc.gov/flu/about/disease/spread.htm\)](http://www.cdc.gov/flu/about/disease/spread.htm)
- Arboviruses (spread through mosquitoes and other insects)
- [Lymphocytic choriomeningitis virus \(http://www.cdc.gov/vhf/lcm/transmission/index.html\)](http://www.cdc.gov/vhf/lcm/transmission/index.html)

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## Symptoms

### Common symptoms in infants

- Fever
- Irritability
- Poor eating
- Sleepiness or trouble waking up from sleep
- Lethargy (a lack of energy)

## Common symptoms in adults

- Fever
- Headache
- Stiff neck
- Sensitivity to bright light
- Sleepiness or trouble waking up from sleep
- Nausea
- Vomiting
- Lack of appetite
- Lethargy (a lack of energy)

Most people with viral meningitis usually get better on their own within 7 to 10 days.

Initial symptoms of viral meningitis are similar to those for [bacterial meningitis](#). However, bacterial meningitis is usually severe and can cause serious complications, such as brain damage, hearing loss, or learning disabilities. It is very important to see a healthcare provider right away if you think you or your child might have meningitis; a doctor can determine if you have the disease, the type of meningitis, and the best treatment.

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## Diagnosis

Meningitis can only be diagnosed by doing specific lab tests on specimens from the sick person. If meningitis is suspected, naso-oro-pharyngeal swabs, rectal swabs, stool, cerebrospinal fluid, blood, and serum are collected and sent to the laboratory for testing.

## Treatment

In most cases, there is no specific treatment for viral meningitis. Most people who get viral meningitis completely recover on their own within 7 to 10 days. However, people with meningitis caused by certain viruses such as herpesvirus and influenza, may benefit from treatment with an antiviral medication.

Antibiotics do not help viral infections, so they are not useful in the treatment of viral meningitis. However, antibiotics are very important when treating bacterial meningitis.

Infants and people with weakened immune systems who develop severe illness may need to be hospitalized.

## Prevention

There are no vaccines to protect against non-polio enteroviruses, which are the most common cause of viral meningitis. You can take the following steps to help lower your chances of getting infected with non-polio enteroviruses or spreading them to other people:

- Wash your hands often with soap and water, especially after changing diapers, using the toilet, or coughing or blowing your nose.
- Avoid touching your face with unwashed hands.
- Avoid close contact such as kissing, hugging, or sharing cups or eating utensils with people who are sick.
- Cover your coughs and sneezes with a tissue or your upper shirt sleeve, not your hands.
- Clean and disinfect frequently touched surfaces, such as toys and doorknobs, especially if someone is sick.
- Stay home when you are sick.

Make sure you and your child are vaccinated on schedule (<http://www.cdc.gov/vaccines/schedules/easy-to-read/index.html>). Some vaccinations can protect against diseases such as measles, mumps, chickenpox, and influenza, that can lead to viral meningitis.

Avoid bites from mosquitoes and other insects that carry diseases that can infect humans.

Control mice and rats. If you have a rodent in and/or around your home, follow the cleaning and control precautions listed on CDC's website about lymphocytic choriomeningitis virus (<http://www.cdc.gov/vhf/lcm/>).

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<b>Related Links</b>
<a href="http://www.cdc.gov/mumps/index.html">Mumps (http://www.cdc.gov/mumps/index.html)</a>
<a href="http://www.cdc.gov/vaccines/hcp/vis/vis-statements/mmr.html">MMR Vaccine (http://www.cdc.gov/vaccines/hcp/vis/vis-statements/mmr.html)</a>
<a href="http://www.cdc.gov/chickenpox/index.html">Chickenpox (http://www.cdc.gov/chickenpox/index.html)</a>
<a href="http://www.cdc.gov/vaccines/hcp/vis/vis-statements/varicella.html">Chickenpox Vaccine (http://www.cdc.gov/vaccines/hcp/vis/vis-statements/varicella.html)</a>
<a href="http://www.cdc.gov/non-polio-enterovirus/index.html">Enteroviruses (http://www.cdc.gov/non-polio-enterovirus/index.html)</a>
<a href="http://wwwdev.cdc.gov/ncidod/dvbid/arbor/arbdet.htm">Arboviruses (http://wwwdev.cdc.gov/ncidod/dvbid/arbor/arbdet.htm)</a>
<a href="http://www.cdc.gov/vhf/lcm/">Lymphocytic Choriomeningitis Virus (http://www.cdc.gov/vhf/lcm/)</a>

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