



## Viral Encephalitis

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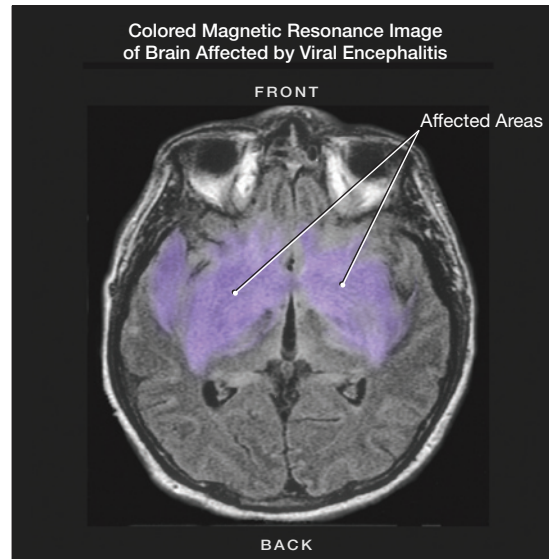
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# Viral Encephalitis

**V**iral encephalitis is the inflammation (damage to cells) of brain tissue that may result from infection with any of a number of viruses. Viruses are extremely small infectious agents that are different from bacteria, cannot live outside of cells, and cannot be treated with antibiotic drugs. Herpes simplex virus type 1 is the most common cause of encephalitis in the United States. Other causative viruses include arboviruses (viruses including the West Nile virus that are transmitted through the bites of mosquitoes, ticks, and sandflies), other herpes viruses, and the rabies virus. In severe cases, encephalitis may result in persistent neurological damage or death. The July 27, 2005, issue of *JAMA* includes an article that describes rabies encephalitis in the recipients of organs transplanted from an infected donor.



*Arch Neurol.* 2005;62:873-882.

## SYMPTOMS

- Fever
- Persistent headache
- Nausea and vomiting
- Confusion or agitation
- Extreme sleepiness
- Weakness, difficulty walking, or clumsiness
- Difficulty speaking
- Seizures

## DIAGNOSIS

In addition to obtaining a complete medical history and performing a physical examination, including a detailed neurological examination, your doctor may order blood tests to look for signs of infection. Your doctor may order **magnetic resonance imaging (MRI)**—the use of magnetic fields to obtain images of the body) or **computed tomography (CT)**—the use of computerized x-rays to obtain images of the body) of your brain to look for inflammation or other causes for your symptoms. Your doctor may also perform a **lumbar puncture** (spinal tap) to obtain some of the fluid that surrounds the brain and spinal cord in order to analyze the spinal fluid for evidence of inflammation and for the presence of specific viruses.

## TREATMENT

Hospitalization may be required to provide supportive care, including adequate fluids and intravenous medication for pain control. **Antiviral medications** (medications designed to destroy certain viruses) are given if the cause of encephalitis is determined and if an appropriate antiviral medication is available. If there are persistent neurological deficits your doctor may also refer you for physical and occupational therapies to help you manage these impairments.

## FOR MORE INFORMATION

- National Institute of Neurological Disorders and Stroke  
800/352-9424  
[www.ninds.nih.gov](http://www.ninds.nih.gov)
- Centers for Disease Control and Prevention  
800/311-3435  
[www.cdc.gov](http://www.cdc.gov)

## INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on rabies was published in the August 23/30, 2000, issue; and one on West Nile virus was published in the July 23/30, 2003, issue.

Source: National Institute of Neurological Disorders and Stroke

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