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What is encephalitis?

Encephalitis is an inflammation (irritation and swelling) of the brain. It is usually caused by an infection with a virus but can also be caused by problems with the immune system or bacterial or fungal infections. While encephalitis can be mild or severe, severe cases are rare. Encephalitis can occur as a primary illness or as a result of another illness elsewhere in the body.

Who gets encephalitis?

Anyone can get encephalitis, but young children, older adults, and persons with weakened immune systems are more at risk.

How is encephalitis spread?

Primary encephalitis occurs when a virus or other agent directly infects the brain. Viruses that are carried by infected mosquitoes and ticks can cause primary encephalitis; people can become sick after an infected mosquito or tick bites them. Sometimes encephalitis can develop as a complication of another illness. When encephalitis develops after another infection, it is called post-infectious encephalitis. Post-infectious encephalitis most commonly follows illness with chickenpox, mumps, or measles.

What are the symptoms of encephalitis?

Encephalitis can cause headache, fever, neck stiffness, or seizures. It can also cause problems with seeing, talking, or moving around. Infants and young children might have vomiting, body stiffness, constant crying, and poor feeding.

How soon after exposure do symptoms appear?

Encephalitis can occur within two to three weeks after a viral illness. Symptoms begin within a few days to a few weeks after the bite from an infected mosquito or tick.

How is encephalitis diagnosed?

Medical evaluation and special tests are needed to confirm the diagnosis. Tests could include a spinal tap (lumbar puncture), brain scans, electroencephalogram (EEG) or blood tests. Anyone with a severe headache, fever, and altered mental status should seek medical care immediately.

What is the treatment for encephalitis?

Doctors might prescribe antiviral drugs, anti-inflammatory drugs, or other treatments for symptoms as needed. A person with encephalitis needs hospital care.

Do people who have been in contact with someone with encephalitis need to be tested and treated?

You cannot catch encephalitis from someone else. If the encephalitis resulted from another illness, such as measles, and you had contact with a sick person, you might need some protection from that disease (for example, vaccination). Your healthcare provider or health department can give you advice about this.

How can encephalitis be prevented?

The way to prevent encephalitis is to prevent the illnesses that can lead to a complication like encephalitis. This can be done through practicing good hand washing and staying up-to-date on all recommended vaccines. You can also take steps to protect yourself from mosquito and tick bites, such as:

- Wearing protective clothing, such as long-sleeved shirts and pants.
- Checking your body and clothing for ticks after being outdoors.
- Use Environmental Protection Agency (EPA)-registered insect repellants.
- Keep the area around your home free of stagnant or standing water.

How can I get more information about encephalitis?

- If you have concerns about encephalitis, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at the VDH Local Health Districts page.
- Visit the CDC's pages below:
 - CDC Eastern Equine Encephalitis
 - CDC St. Louis Encephalitis
 - CDC La Crosse Encephalitis

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