

### **What is encephalitis?**

Encephalitis is an acute infection and inflammation of the brain caused by a variety of viruses, bacteria, fungi and protozoa.

There are many viral causes including entero, coxsacki and arbo viruses. Better known types of encephalitis caused by viruses are Japanese Encephalitis, St. Louis Encephalitis (SLE), Western Equine Encephalitis (WEE), Eastern Equine Encephalitis (EEE) and California Encephalitis (CE). Viral encephalitis occurs world-wide, more frequently in summer and early fall.

Bacteria that cause less serious illnesses such as ear infections or pneumonia can, in rare instances, cause encephalitis. Sometimes bacteria that are carried in the nose and throat of one healthy person can, for some unknown reason, cause serious illness in another. Our immune system defends us against infections. Occasionally when these defenses are weak or when the germs get past them, serious illness occurs. We do not know why some people are not harmed, some have mild illness or why on rare occasions some become seriously ill and die.

Subacute Sclerosing Panencephalitis (SSPE) is a rare, chronic, progressive encephalitis that primarily affects children and young adults. It is caused by a persistent infection of immune resistant measles virus which may be the result of a mutation of the virus itself. It is also known as Dawson disease, Dawson encephalitis or measles encephalitis. SSPE is extremely rare and the number of cases is declining since the introduction of the measles vaccine. Eradication of the measles virus prevents the SSPE mutation.

### **What are the symptoms?**

Viral encephalitis including those caused by vaccine preventable diseases can be mild causing fever and headache. Most people recover fully. Severe infections are marked by acute onset of intense headache, high fever, severe painful immobilizing neck stiffness, stupor, disorientation, coma, tremors, convulsions and spastic paralysis. There may be debilitating neurological deficits as a result.

### **How is encephalitis spread?**

Viruses and bacteria are spread through direct contact with an infected person's saliva when they sneeze or cough.

Enteroviruses are spread when we eat or drink foods contaminated with human feces.

Arboviruses are spread by certain types of infected mosquitoes or ticks.

*Continued...*

**CD-62**  
2011/04/04

### **What is the incubation period?**

For primary viral encephalitis the incubation period is usually 5 to 15 days.

### **How is encephalitis treated?**

Antibiotics may help treat infections caused by bacteria. Immediate contacts of some kinds of bacterial encephalitis may receive preventive antibiotics as well.

When a virus is the cause, the person's symptoms are treated. Immediate contacts are not treated.

### **How can I protect myself?**

Infection control measures are important.

- Wash your hands thoroughly after using the bathroom and before handling food.
- Do not share drinking cups or eating utensils.
- Cover your nose and mouth when coughing or sneezing.
- Dispose of soiled tissues carefully.
- Have children vaccinated for vaccine preventable diseases according to recommended schedules.
- Use personal precautions to avoid insect bites including repellents and protective clothing, and stay in screened or air-conditioned locations. Travelers to tropical climates need to consider taking mosquito bed nets and insecticides.

### **Other Questions?**

Talk to your health care provider or call our Communicable Disease Program at 613-966-5500 x349. Toll Free 1-800-267-2803 | TTY Dial 711 (1-800-267-6511) | [www.hpepublichealth.ca](http://www.hpepublichealth.ca)

### **References:**

- Behrman, R.E., Jenson, H.B., Kleigman, R.M. (2000). *Nelson Textbook of Pediatrics*. (16th Ed.). Philadelphia, Pennsylvania: W.B. Saunders Company.
- Heymann, D. L., (2008). *Control of Communicable Diseases Manual*. (19th Ed.). Washington, DC: American Public Health Association.
- Ministry of Health and Long Term Care, Infectious Disease Protocols, 2009.
- Pickering, L.K., ed. (2003). *Red Book: 2003 Report of the Committee on Infectious Diseases*. Elk Grove Village, IL: American Academy of Pediatrics.

Public Health is committed to providing accessible programs and services to all. To request this or any other publication in an alternative format, please contact us by phone at 613-966-5500 or by email at [accessibility@hpeph.ca](mailto:accessibility@hpeph.ca)