

Meningitis

Meningitis is an infection of the tissues (meninges) and sometimes the fluid (cerebral spinal fluid) that surrounds the brain and spinal cord. Meningitis results in swelling of the brain tissue and, in some cases, the spinal tissue (spinal meningitis). When brain tissue swells, less blood and oxygen reach brain cells, producing symptoms such as fever, severe headache, and stiff neck.

Meningitis usually is caused by viruses or bacteria. Rarely, organisms such as fungi or parasites or a reaction to a medication can cause meningitis. The infection also can develop as a complication of another illness, an injury, or brain surgery. Sometimes, the cause is not identified.

Meningitis occurs most often in infants, young adults between ages 15 and 24, older adults, and people who have long-standing health conditions. The illness can range from mild to life-threatening. The severity usually depends on the organism causing the infection and a person's age and overall health.

Treatment for meningitis depends on the cause of the infection:

- People with meningitis caused by a virus usually get better in about 2 weeks. They often need only home treatment.
- People with meningitis caused by bacteria need to be treated with antibiotics in a hospital. They are more likely to develop complications during illness and long-term complications. Death can occur if bacterial meningitis is not treated promptly.

In some cases, vaccination may prevent meningitis caused by certain organisms. Vaccines against the most common causes of bacterial meningitis (*Streptococcus pneumoniae* and *Neisseria meningitidis*) are recommended for people at high risk of infection. These include children and adults who have an underlying serious illness or do not have a working spleen, older adults, and people traveling to areas where meningitis is prevalent. Routine vaccination against *Streptococcus pneumoniae* is recommended for children age 2 and younger.

Children between the ages of 2 months and 5 years also should be vaccinated against *Haemophilus influenzae* type b bacteria. Since its introduction in 1985, the vaccine has greatly reduced the number of cases of meningitis caused by this bacteria.