

MENINGITIS



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Meningitis is an inflammation of the membranes that cover the brain and spinal cord. Infectious causes include bacteria, viruses and fungi. On the other hand, non-infectious causes include cancers and head injuries. This review will discuss the most common causes, namely bacterial and viral infections.

Bacterial meningitis may be caused by several pathogens, namely *Haemophilus influenza*, *Streptococcus pneumoniae*, *Listeria monocytogenes* and *Neisseria meningitidis*. Different pathogens characteristically affect specific age groups, e.g. *Haemophilus influenza* generally affects infants and children, whereas *Listeria monocytogenes* infections are characteristic of newborns and the elderly. Bacterial meningitis is usually severe and can cause serious complications, however, most people recover with the aid of antibiotics. Risk factors include age, whereby infants are at a higher risk, and immunosuppression, amongst others. Transmission of the causative agents occurs through the exchange of respiratory and throat secretions; it is not spread through casual contact such as simply breathing the air where a person with meningitis has been. Unlike other bacterial causes of meningitis, infections of *Listeria monocytogenes* can occur by eating contaminated food. Symptoms of bacterial meningitis may appear suddenly or over several days. Apart from a sudden onset of fever, headache, and stiff neck, signs of the infection include nausea, vomiting,

photophobia and confusion. Once diagnosed, the treatment should commence as soon as possible, where treatment is also recommended for close contacts of people suffering from Meningococcal meningitis and *Haemophilus influenza* infections.

Viral meningitis is less severe than bacterial meningitis, however, infants and immunosuppressed people are more likely to develop a severe form of the illness. Causes of viral meningitis include non-polio enteroviruses, mumps virus, herpes viruses, measles virus, influenza virus and arboviruses, such as the West Nile virus. The symptoms of viral meningitis are similar to bacterial meningitis infections.

Both bacterial and viral meningitis can be diagnosed through specific lab tests on specimens such as cerebrospinal fluid.

Preventive measures primarily include vaccination and avoiding close contact with people who are sick. ❄️

