



What is meningococcal meningitis?

Meningitis is a severe infection of the bloodstream and meninges (a thin lining covering the brain and spinal cord) caused by a bacteria or virus. Bacterial meningitis is usually more severe than viral meningitis, but less common. Bacterial meningitis is most commonly caused by *Haemophilus influenzae* type B, *Streptococcus pneumoniae* or *Neisseria meningitidis*. The most severe form of bacterial meningitis is called *Neisseria meningitidis*. It is a relatively rare disease and usually occurs as a single isolated event. Clusters of cases or outbreaks are rare in the United States.

Who is at risk for meningococcal meningitis?

Anyone can get meningococcal meningitis, but it is more common in infants and children. Other people at increased risk for meningitis are: college freshman living in dormitories, microbiologists that are routinely exposed, military recruits and travelers to areas where meningitis occurs frequently.

What are the symptoms of meningococcal meningitis?

Although most people exposed to the meningococcal bacteria do not become seriously ill, some may develop fever, headache, vomiting, stiff neck and a rash. Meningitis can cause sensitivity to light, confusion, drowsiness, seizures, and sometimes coma. The disease is occasionally fatal.

How soon do symptoms appear?

The symptoms may appear one to ten days after exposure, but usually less than 4 days.

How is meningococcal meningitis spread?

Meningococcal meningitis is spread by direct, close contact with nose or throat discharges of an infected person. Many people carry meningococcal bacteria in their nose and throat without any signs of illness, while others may develop serious symptoms.

When and for how long is a person able to spread the disease?

From the time a person is first infected until the bacteria are no longer present in discharges from the nose and throat, he or she may spread the disease. Once an infected person has been on the appropriate antibiotics for 24 hours, then that person is not longer contagious.

How is a person diagnosed?

A healthcare provider is needed to diagnose meningitis. A laboratory test is needed in order to determine which bacterium is causing the illness.

What is the treatment?

Certain antibiotics are very effective for the treatment and elimination of bacteria from the nose and throat.

Does past infection make a person immune?

No, because there are so many different types of bacteria that cause meningitis. If someone is infected with one type of meningitis, that does not make them immune to other types.

Should children or others be excluded from day care, school, work or other activities if they have meningococcal meningitis?

Yes, people should be excluded from school, day care or the work place until at least 24 hours after antibiotic therapy was started and the illness has subsided.

What can be done to prevent the spread of meningococcal disease?

Practice good hand washing techniques. If you have been in close contact (household members, daycare playmates, intimate contacts, health care personnel performing mouth to mouth resuscitation) with a diagnosed case, you need to take preventative measures. This would consist of consulting a physician for the necessary antibiotic treatment.

Two vaccines that protect against four types of *Neisseria meningitidis* are available in the United States. Meningococcal conjugate vaccine (MCV-4, Menactra®) is recommended for all children 11-18 years of age, although it has been approved for use in children as young as two. Starting with the 2008-2009 school year all children entering middle school, sixth or seventh grade, depending on the school are required to be vaccinated with meningococcal vaccine.

The vaccine is also recommended for individuals that will be freshman in college and living in dormitories who have not been previously vaccinated. MCV-4 is also recommended for people who are traveling to certain areas of the world. Certain individuals who remain at high-risk for meningococcal disease are recommended to receive a one-time booster five years after the initial dose is given. Routine booster doses are not recommended for college freshmen.

Additional Information:

Additional information is available at www.ndhealth.gov/disease or by calling the North Dakota Department of Health at 800.472.2180.

This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.

Resource: American Academy of Pediatrics. [Meningococcal Infections]. In: Pickering LK, ed. *Red Book: 2003 Report of the Committee on Infectious Diseases*. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003: 430-436.

Centers for Disease Control and Prevention. Prevention and Control of Meningococcal Disease Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2005; 54 (No. RR-7).