



Meningococcal disease (meningococcal meningitis, meningococemia)

Disease Fact Sheet

What is meningococcal disease?

Meningococcal disease includes meningococcal meningitis and meningococemia. Meningococcal meningitis is a severe form of meningitis (inflammation of the meninges, the tissues that cover the brain and spinal cord) caused by the bacterium *Neisseria meningitidis*. Meningococemia is an infection of the blood with *Neisseria meningitidis*. A person may have either meningococcal meningitis, meningococemia or both at the same time.

What are the symptoms?

The signs and symptoms of meningococcal disease can vary widely, but include sudden onset of high fever, headache, vomiting, stiff neck and a rash. Sensitivity to light, sleepiness and confusion may also occur. Symptoms may be difficult to detect in infants, and the infant may only appear lethargic, irritable, have vomiting or be feeding poorly. As the disease progresses, patients of any age may have seizures. Meningococcal disease is fatal in 10-14 percent of cases, and 11-19 percent of cases who recover will have lifelong complications (hearing loss, loss of limbs).

How soon do symptoms appear?

The symptoms may develop rapidly, sometimes in a matter of hours, but usually over the course of one to two days. In some cases, death may occur within hours of the onset of symptoms. The symptoms may appear anytime between two and ten days after exposure, but usually within three to four days.

Who gets meningococcal disease?

N. meningitidis bacteria are commonly found in the nose and throat without ever causing disease. Nationally, it is estimated that 5 to 10 percent of the population is carrying the bacterium at any given time. Most people exposed to *N. meningitidis* do not become ill. It is not well understood why only a few people develop invasive illness, but reasons may include societal (e.g., overcrowding, smoke exposure) or physical factors making them more susceptible to disease.

Anyone can get meningococcal disease, but it is most common in children under five years of age and young adults ages 16 through 21 years.

How are the bacteria that cause meningococcal disease spread?

The meningococcus bacteria are spread by direct contact with respiratory and oral secretions (saliva, sputum or nasal mucus) of an infected person or an asymptomatic carrier.

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

A person with meningococcal disease may transmit the disease beginning several days before becoming ill, until the bacteria are no longer present in discharges from the nose and throat. Patients should be excluded from school, daycare or the workplace until at least 24 hours after therapy has begun and the illness has subsided.

What is the treatment for meningococcal disease?

Meningococcal disease can be treated with a number of effective antibiotics. People who have been in close, direct contact with a patient with meningococcal disease may need to take antibiotics such as rifampin, ciprofloxacin or ceftriaxone as a preventive measure to eliminate bacteria they may be carrying in their throat.



Should people who have been in contact with a person with a diagnosed case of meningococcal disease be treated?

Only people who have been in close, direct contact need to be considered for preventive treatment. Close contacts include household members, intimate contacts, someone performing mouth-to-mouth resuscitation or endotracheal intubation, daycare center classmates or anyone directly exposed to the patient's oral or nasal secretions (e.g., kissing, sharing eating utensils or beverage containers). Direct contacts are usually advised to take preventive antibiotics. Close contacts should be alerted to watch for early signs of illness, especially fever, and seek treatment promptly.

Is there a vaccine to prevent meningococcal disease?

Three vaccines (Menomune®, Menactra® and Menuco®) will protect against four of the five types of meningococcus (serogroups A, C, Y and W-135). Meningococcal vaccines cannot prevent all types of the disease (none protect against type B). Vaccine is recommended in some outbreak situations or for travelers to areas of the world where high rates of the disease are known to occur.

In 2012, the Advisory Committee on Immunization Practices (ACIP) recommended that children receive the first dose of meningococcal vaccine between ages 11 and 12 and a booster dose at 16 years of age.