



MENINGOCOCCAL DISEASE

What is meningococcal disease?

Meningococcal disease is an infection caused by specific bacteria, *Neisseria meningitides*. In the United States, this bacteria is a leading cause of bacterial meningitis or infection of the lining of the brain and spinal cord. The bacteria can also cause septicemia or infection of the blood. A person can have septicemia without meningitis. Pneumonia is a less common infection caused by the *N. meningitides* organism. Meningococcal disease is not common and usually occurs as a single isolated event. Clusters or outbreaks of cases are rare in the United States.

What are the symptoms?

The onset of meningococcal infection is usually sudden. People may have a severe headache, stiff neck, fever, nausea and vomiting, and extreme tiredness. A pink or purplish rash may also occur. In *rare* cases, the illness may rapidly progress with neurological changes (drowsiness, irritability or confusion), bleeding problems and death. The time from exposure to the bacteria to onset of symptoms is between 2 to 10 days but usually 3 to 4 days.

How is the infection spread?

The germ is transmitted from person to person by direct contact with the mucus from the nose or throat of an infected person. The germs can be spread by coughing, sneezing, kissing, or sharing drinking containers or eating utensils. It's important to know that many people normally "carry" the bacteria in their nose and throat without any signs of illness. In fact, it is estimated that 5-25% of people have the bacteria in the back of their nose and throat. It is not known why some people develop the disease and others do not.

Who gets meningococcal disease?

Anyone can get this disease but it is more common in infants, young children and young adults. It is also more common in persons with weakened immune systems, such as those who have had their spleen removed. Also, persons who live in crowded areas (such as military barracks and school dormitories) are at increased risk of getting meningococcal disease. Recent studies suggest that people who smoke or are around those who do are also at higher risk.

How long is someone contagious?

A person is contagious (able to spread the germ to others) from the time he or she is first infected until the bacteria is no longer present in the discharges from the nose and mouth discharges or blood. This is usually 24 hours after appropriate antibiotics have been given to the infected person.

What is the treatment for meningococcal infections?

Prompt medical attention is essential. Intravenous antibiotics are used to treat this disease. Hospitalization and special intensive care is often needed.

Is there a vaccine for meningococcal disease?

There are at least seven different strains of *N. meningitides*. There are no vaccines that can prevent all types (strains). Currently, there are two vaccines available in the United States that can prevent 4 of these strains (A, C, Y and W-135). The 4 strains account for two thirds of the reported cases in the U. S. each year. Most of the remaining cases are caused by serogroup B which is not present in the vaccine.

Until recently, the vaccine was recommended only for individuals traveling to countries where disease is common (such as certain parts of Africa), and freshman students living in dormitories. However, in the United States, routine vaccination is currently recommended for **all** children between the ages of 11 and 18 years. The vaccine is also recommended for persons 2 – 55 years old with certain medical conditions or risk factors. If you have questions about the vaccine, please refer to your healthcare provider or contact the local health department.

Should close contacts be treated? What is a close contact?

Since the disease is spread by direct exposure to discharges of the nose or throat, certain persons are at increased risk to develop illness. The local health department will help identify those persons and determine who may need preventative medication. Those persons include household contacts, playmates in a day care center, boyfriend or girlfriend, and certain health care workers. Casual contacts, or those with no direct exposure to an ill person's oral secretions, are not considered at high risk and require no preventative medication. These persons would include classmates in a regular school setting or those in a work in an office or factory setting. The purpose of medication for contacts is to offer protection from developing the illness. Treatment consists of an antibiotic (usually rifampin or ciprofloxacin) which is given for 1 or two days. All close contacts, even if they have taken a preventative treatment, should watch for signs of infection, especially fever, and call their doctor as soon as possible.

How can meningitis be prevented?

Vaccine is the best way to prevent meningococcal disease. However, because the bacteria can be transmitted by secretions from the nose or throat, there are simple measures to reduce the spread of the germs. Remember, meningitis is not spread through casual contact, such as shaking hands or standing next to a person in grocery line. It is important to practice these important health tips:

- Don't share food, glasses, water bottles, or eating utensils.
- Don't share lip-gloss or lipstick.
- Don't share cigarettes.
- Throw away dirty or used tissues or paper towels after use.
- Wash hands often with soap and water.
- Keep immunizations up-to-date.
- Stay healthy by eating a well-balanced diet, regular exercise, getting enough sleep, and avoiding tobacco, drugs and alcohol.

FOR MORE INFORMATION:

SCHD Communicable Disease Unit 330-375-2662

Centers for Disease Control and Prevention

www.cdc.gov

Mayo Clinic

www.mayoclinic.com

Minnesota Department of Health

www.health.state.mn.us