

Meningococcal Disease

Fact Sheet



Maine Center for Disease
Control and Prevention

An Office of the
Department of Health and Human Services

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What is meningococcal disease?

Meningococcal disease is a serious illness caused by bacteria called *Neisseria meningitidis*. Infection with these bacteria can cause:

- Meningitis (infection of the lining of the brain and spinal cord)
- Bacteremia (bacteria in the blood), and rarely
- Pneumonia (infection of the lungs)

How is meningococcal disease spread?

Meningococcal disease is spread from person to person through close personal contact with someone who is sick with the disease or is carrying the bacteria and may not look sick. The bacteria are found in the nose and throat of infected persons and can be spread by kissing, sharing drinks and mouth to mouth resuscitation. The disease can also be spread to people living in the same house or attending the same daycare as an infected person.

The disease is not usually spread through casual contact such as sharing a classroom or an office with someone who is sick. Persons infected with the bacteria can spread the disease to others until 24 hours after effective treatment with antibiotics begins.

What are the signs and symptoms of meningococcal disease?

Of the people who carry the bacteria in the nose and throat, only a very few will develop disease. However, people who carry the bacteria can sometimes pass it to others who will in turn become sick. Signs and symptoms of meningococcal disease may include:

- High fever
- Headache
- Stiff neck
- Vomiting
- Rash

Symptoms usually appear within 4 days after exposure to the bacteria (range is from 1-10 days). Among people who develop meningococcal disease, 10-15 percent die, even after treatment with antibiotics. Of those who live, permanent brain damage, hearing loss, kidney

failure, loss of arms or legs, or chronic nervous system problems may occur.

How is meningococcal disease treated?

Antibiotics can be used to treat people with meningococcal disease. It is important that treatment be started early in the course of the disease. Appropriate antibiotic treatment should reduce the risk of dying from meningitis to below 15%, although the risk is higher among the elderly.

Should people who have been in contact with someone who has been diagnosed with meningococcal disease be treated?

Only people who have been in close contact (for example - household members, intimate contacts, people performing mouth-to-mouth resuscitation, and daycare center playmates) with an infected person need to be considered for preventive treatment. This includes people who have had contact with an infected person's oral fluids through kissing or sharing foods or beverages. These people may be advised to visit their healthcare provider to get a prescription for an antibiotic and to take the antibiotic as soon as possible (preferably within 24 hours).

How is meningococcal disease diagnosed?

Meningococcal disease is usually diagnosed by growing the *Neisseria meningitidis* bacteria from a sample of blood or spinal fluid.

Who is at risk of developing meningococcal disease?

Anyone can get meningococcal disease, but it is more common in infants and children. Adolescents, such as first-year college students living in dormitories are also at increased risk of meningococcal disease. Other risk factors include:

- Living in close quarters, such as dormitories
- Being in crowded situations for prolonged periods of time
- Sharing eating utensils and drinking glasses, kissing, or sharing cigarettes with an infected person

Is there a vaccine to prevent meningococcal disease?

Yes, there are two vaccines (MCV4 or Menactra™ and MPSV4 or Menomune®) available in the U.S. to protect against meningococcal disease. Contact your healthcare provider to find out which vaccine is best for you.

What are the differences between the two vaccines?

The conjugate vaccine (MCV4), licensed in 2005, is believed to have several advantages over the polysaccharide vaccine (MPSV4) including longer lasting immunity and better effectiveness in reducing meningococcal bacteria in the nose and throat. MCV4 is licensed for people 11-55 years of age and MPSV4 is licensed for people 2 years of age and older.

Both vaccines are 85–100% effective in preventing 4 types of meningococcal disease, including 2 of the 3 types most common in the U.S. The vaccines cannot prevent all types of the disease, but they do protect many people who might become sick if they didn't get the vaccine.

Who should get the vaccine?

Routine vaccination is recommended for:

- All adolescents 11 – 18 years of age
- College freshman living in dormitories
- U.S. military recruits
- Anyone who has a damaged spleen or whose spleen has been removed
- Anyone who has terminal complement component deficiency (an immune system disorder)
- Anyone traveling to countries where there is an outbreak of meningococcal disease
- Those who might have been exposed to meningococcal disease during an outbreak

Is the vaccine safe?

Yes. As with all vaccines, there may be rare and mild side effects, such as redness and pain at the injection site lasting up to two days.

Meningococcal Disease in Maine

Historically, fewer than 15 cases of meningococcal disease are reported in Maine each year. Maine CDC immediately investigates all reported cases of meningococcal disease to identify sources of public health concern and to prevent further spread of the disease. For specific information on the number of cases of meningococcal disease in Maine, please visit the Maine CDC website listed below.

Where can I get more information?

For more information contact your healthcare provider or local health center. You can also contact the Maine Center for Disease Control and Prevention by calling 1-800-821-5821 or visiting the website: <http://www.mainepublichealth.gov>. The federal Centers for Disease Control and Prevention website - <http://www.cdc.gov> – is another excellent source of health information.