

Invasive Meningococcal Disease

Information for the Public

What is meningococcal Disease?

Meningococcal disease is a severe bacterial infection that can cause meningitis (a medical condition caused by inflammation of the protective membranes covering the brain and spinal cord, known collectively as the meninges), bloodstream infection and other localized infections. Although the disease is not common in the United States, in those who get it, symptoms develop and progress rapidly and can even lead to death in 24-48 hours.

Symptoms of meningococcal meningitis may include fever, headache, nausea, vomiting, a stiff neck, mental status changes and rash. Even with appropriate antibiotic treatment, approximately 10% of affected individuals may die. About 20% of survivors from the disease have permanent sequelae, such as hearing loss, neurologic damage, or loss of a limb.

People with bloodstream infection (meningococcal bacteremia) may have sudden onset of fever and in severe cases, a petechial rash (small red or purple spots on the skin) or purpuric rash (red or purple discolorations on the skin).

What causes meningococcal disease?

Meningococcal disease is caused by the bacteria *Neisseria meningitidis*, also called meningococcus.

How is meningococcal disease spread?

Meningococcus is spread from one person to another by direct contact with secretions from the nose and throat that contain the bacteria. Examples include:

- Sharing eating utensils or drinking cups, water bottles, cans, drinking straws, toothbrushes
- Kissing on the mouth
- Sharing a cigarette or a lipstick, toys, mouth guards, musical instruments with mouthpieces
- Mouth-to-mouth resuscitation

Meningococcal disease can also spread in very crowded situations, including:

- Daycares
- Barracks
- Jails

Meningococcal disease is **not** spread by:

- Being in the same room as the person who got the disease (without sharing secretions from the nose and throat), e.g., the same workplace or classroom; or
- Knowing someone who knows a person who got meningococcal disease

Invasive Meningococcal Disease

Information for the Public

Who is most at risk for meningococcal disease?

People who have certain medical conditions are at higher risk, including:

- Those with terminal complement pathway deficiency (a type of immune deficiency)
- Those who do not have a spleen

Certain factors may place individuals at higher risk, including:

- Close contacts of patients with meningococcal disease
- Smokers and people who have exposure to tobacco smoke
- HIV infection
- Recent cold or upper respiratory infection
- Household crowding

Many people can carry the meningococcal bacteria in their nose or throat without getting ill.

What can I do to protect myself from meningococcal disease?

1. Antibiotics

A person **needs to take antibiotics** to prevent meningococcal disease if he/she:

- Lives in the same house with a person who developed invasive meningococcal disease;
- In the last seven days, attended the same daycare classroom as the person who got meningococcal disease;
- Shared a toothbrush, eating utensils, or drinking cup with a person who got meningococcal disease;
- Frequently eats or sleeps in the same house as the person who got meningococcal disease; or,
- Kissed the mouth of a person who got meningococcal disease.

A person **does not need antibiotics** to prevent meningococcal disease if he/she:

- Did not have direct contact with the saliva of a person who got meningococcal disease, e.g., a school or workmate;
- Knows someone who knows a person who got meningococcal disease; or,
- Was exposed to someone with meningococcal disease more than 10 days ago and is well.

Talk to your healthcare provider or your local health department to help you determine if you need antibiotics.

Invasive Meningococcal Disease

Information for the Public

2. Vaccinate

Types of meningococcal vaccine

There are several types of vaccine that protect against meningococcal disease. Vaccines are recommended based on the age of a person and based on factors that increase the risk of getting meningococcal disease.

- Quadrivalent (4-strain) meningococcal conjugate vaccine (MenACYW): The quadrivalent vaccine protects against four strains, also called serogroups, A, C, Y and W and is generally used for persons through age 55 years.
- Quadrivalent polysaccharide meningococcal vaccine (MPSV4): MPSV4 protects against the same four serogroups A, C, Y and W and is used for persons over age 55 years.
- Bi-valent (2-strain) vaccine (MenCY): MenCY protects against serogroups C and Y is only used for infants. This vaccine is combined with another commonly given vaccine, *Haemophilus influenzae*, type B or Hib and is called Hib-MenCY.
- Meningococcal B vaccine (MenB): MenB protects against serogroup B and may be used for persons as young as 10 years old and considered as high-risk.

Who should get vaccinated

- All children should get a dose of MenACYW at 11-12 years and a booster dose at 16 years of age.
 - First year college students up to age 21 years who live in residential housing should also get a dose of MenACYW if they have not had a dose since they turned 16.
- Adolescents and young adults age 16 through 23 years may choose to receive the meningococcal B vaccine. They should discuss this with their health care provider.
- Both MenACYW and MenB are recommended for certain children and adults at risk for meningococcal disease depending on their age. Talk to your health care provider about the need for one or both of these vaccines.

For more information about getting vaccinated, contact your healthcare provider or local health department.

Practice Good Hygiene, including Cough Etiquette

- Wash your hands with soap and water frequently
- Do not share eating utensils or drinking cups, water bottles, cans, drinking straws; personal items such as toothbrushes, lipsticks, cigarettes, toys, mouth guards, musical instruments with mouthpieces
- Cover your mouth when coughing.