

Meningococcal Meningitis Information for the Public

What is meningococcal meningitis?

Meningococcal meningitis is an infection of the fluid surrounding the brain and spinal cord. People with meningococcal meningitis may have fever, headache, nausea, vomiting, a stiff neck, and rash. Even with appropriate antibiotic treatment, the fatality rate is 9 to 12%. About 20% of survivors from the disease have permanent sequelae, such as hearing loss, neurologic damage, or loss of a limb.

What causes meningococcal meningitis?

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

How is meningococcal meningitis 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 and a lipstick, toys, mouth guards, musical instruments with mouthpieces; or,
- Mouth-to-mouth resuscitation.

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

- Daycares;
- Barracks; or,
- Jails.

Meningococcal meningitis is **not** spread by:

- Being in the same room as the person who got meningitis (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 meningitis.

Infectious Disease Epidemiology Program

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Who is most at risk for meningococcal meningitis?

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; or,
- Certain genetic factors such as polymorphisms.

Certain other 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; and,
- Household crowding.

Many people can carry the meningococcal bacteria in their nose or throat without getting ill. In this way, many people become immune to meningococcal meningitis by adulthood. That is why healthy adults are at low risk for meningococcal meningitis.

Do I need to take antibiotics to prevent meningococcal meningitis?

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

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

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

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

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

Is there a vaccine for meningococcal meningitis?

Yes. There are two types of meningococcal vaccines available in the United States, but are only recommended for persons at risk for meningococcal disease:

- Meningococcal conjugate vaccine (MCV4) is licensed for people 11-55 years of age, and is the preferred vaccine in that age group.
- Meningococcal polysaccharide vaccine (MPSV4) is licensed for persons age 2 and older, and is the alternative vaccine for persons aged 11-55 years.

MCV4 is recommended for:

- All children during their routine preadolescent visit (11-12 years of age);
- Children at high school entry who have never received MCV4 previously;
- Other adolescents who wish to reduce their risk of meningococcal disease;
- College freshmen living in dormitories;
- People who are routinely exposed to meningococcal bacteria such as laboratory worker (microbiologists);
- U. S. military recruits;
- Anyone traveling to or living in a part of the world where meningococcal disease is common, such as parts of Africa;
- Anyone who has a damaged spleen, or whose spleen has been removed; and,
- Anyone who has terminal complement component deficiency (an immune system disorder).

MPSV is approved for persons ≥ 2 year of age and it is not recommended for routine vaccination of civilians. This vaccine should be used only for persons who are at increased risk of N. meningitidis infection, who are 2-10 years or >55 years of age, or if MCV is not available.

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Who should not get meningococcal vaccine?

The following individuals should not get meningococcal vaccine or should wait:

- Anyone who has ever had a severe (life-threatening) **allergic reaction to a previous dose** of either meningococcal vaccine should not get another dose.
- Anyone who has a severe (life threatening) **allergy to any vaccine component** should not get the vaccine. Tell your doctor if you have any severe allergies.
- Anyone who is **moderately or severely ill** at the time the shot is scheduled should probably wait until they recover. People with a mild illness can usually get the vaccine.

Meningococcal vaccines may be given to pregnant women. However, MCV4 is a new vaccine and has not been studied in pregnant women as much as MPSV4. It should be used only if clearly needed.

For more information about meningococcal vaccines, please read *Meningococcal Vaccines: What You Need to Know* on <http://www.immunize.org/vis/menin05.pdf>.

What is an outbreak of meningococcal meningitis?

West Virginia has about 10 to 20 cases of meningococcal disease every year. An outbreak is an unusual increase above this expected number of cases. To monitor for outbreaks, West Virginia's local health departments:

- Thoroughly investigate every reported case of meningococcal disease; and
- Give antibiotics to persons who need them to prevent illness.

This prevention activity goes on every time a case of meningococcal meningitis is reported.