

# Meningococcal Disease and Camp Attendees: Commonly Asked Questions

## What is meningococcal disease?

Meningococcal disease is caused by infection with bacteria called *Neisseria meningitidis*. These bacteria can infect the tissue (the “meninges”) surrounding the brain and spinal cord and cause meningitis, or they may infect the blood or other organs of the body. Symptoms of meningococcal disease may appear suddenly. Fever, severe and constant headaches, stiff neck or neck pain, nausea and vomiting, and rash can all be signs of meningococcal disease. Changes in behavior, such as confusion, sleepiness, and trouble waking up, can also be important symptoms. In the US, about 350-550 people get meningococcal disease yearly, and 10-15% die despite receiving antibiotic treatment. Of those who survive, about 10-20% may lose limbs, become hard of hearing or deaf, have problems with their nervous system, including long-term neurologic problems, or have seizures or strokes. Less common presentations include pneumonia and arthritis.

## How common is meningococcal disease?

Meningococcal disease is becoming much less common. Over the past 20 years, the overall incidence of meningococcal disease in the US has declined ten-fold. Twenty years ago in Massachusetts, there were 80-100 cases of meningococcal disease per year. In contrast, for the past decade, the average is approximately 12 cases per year. Declining rates of meningococcal disease may be due in part to the introduction of meningococcal vaccines (initially recommended routinely in 2005 for adolescents aged 11-12 years, unvaccinated college freshmen living in residence halls) as well as other factors such as the decline in cigarette smoking, which may impact susceptibility to this disease.

## How is meningococcal disease spread?

These bacteria are passed from person to person through saliva (spit). You must be in close contact with an infected person’s saliva for the bacteria to spread. Close contact includes activities such as kissing, sharing water bottles, sharing eating/drinking utensils, sharing cigarettes, or being within 3-6 feet of someone who is infected and coughing and sneezing.

## Who is most at risk for getting meningococcal disease?

People who travel to certain parts of the world where the disease is very common, microbiologists, people with HIV infection, and those exposed to meningococcal disease during an outbreak are at risk for meningococcal disease. Children and adults with damaged or removed spleens or persistent complement component deficiency (an inherited immune disorder) are at risk. Adolescents and people who live in specific settings, such as college freshmen living in dormitories and military recruits, are at greater risk of disease from some of the serotypes.

## Are camp attendees at increased risk for meningococcal disease?

Children attending day or residential camps are not considered to be at an increased risk for meningococcal disease because of their participation.

## Is there a vaccine against meningococcal disease?

Yes, there are multiple meningococcal vaccines. Quadrivalent meningococcal conjugate vaccine (Menveo and MenQuadfi) protects against 4 serotypes (A, C, W, and Y) of meningococcal disease. The meningococcal serogroup B vaccine (Bexsero and Trumenba) protects against serogroup B meningococcal disease for people aged 10 and older. Pentavalent meningococcal vaccine protects against serogroups A, B, C, W, and Y. It may be administered to persons aged  $\geq 10$  years when both a quadrivalent meningococcal conjugate vaccine and meningococcal B vaccine are indicated at the same visit.

## Should my child or adolescent receive the meningococcal vaccine?

Different meningococcal vaccines are recommended for a range of age and risk groups. Meningococcal conjugate vaccine (MenACWY) is routinely recommended at age 11-12 years with a booster at age 16 and is required for school entry for grades 7 and 11. In addition, these vaccines may be recommended for additional children with certain high-risk health conditions, such as those described above.

Meningococcal serogroup B vaccine (Bexsero and Trumenba) is recommended for people with certain relatively rare high-risk health conditions (examples: persons with a damaged spleen or whose spleen has been removed, those with persistent

complement component deficiency (an inherited disorder), and people who may have been exposed during an outbreak). Adolescents and young adults (16 through 23 years of age) who do not have high-risk conditions may be vaccinated with a serogroup B meningococcal vaccine, preferably at 16 through 18 years of age, to provide short-term protection for most strains of serogroup B meningococcal disease. Parents of adolescents and children at higher risk of infection because of certain medical conditions or other circumstances should discuss vaccination with their child's healthcare provider.

### **How can I protect my child or adolescent from getting meningococcal disease?**

The best protection against meningococcal disease and many other infectious diseases is thorough and frequent handwashing, respiratory hygiene, and cough etiquette. Individuals should:

- 1) wash their hands often, especially after using the toilet and before eating or preparing food (hands should be washed with soap and water, or an alcohol-based hand gel or rub may be used if hands are not visibly dirty).
- 2) cover their nose and mouth with a tissue when coughing or sneezing and discard the tissue in a trash can; or if they don't have a tissue, cough or sneeze into their upper sleeve.
- 3) not share food, drinks, or eating utensils with other people, especially if they are ill.
- 4) contact their healthcare provider immediately if they have symptoms of meningococcal disease.

If your child is exposed to someone with meningococcal disease, antibiotics may be recommended to keep your child from getting sick.

You can obtain more information about meningococcal disease or vaccination from your healthcare provider, your local Board of Health (listed in the phone book under government), or the Massachusetts Department of Public Health Divisions of Epidemiology and Immunization at (617) 983-6800 or on the MDPH website at <https://www.mass.gov/info-details/school-immunizations>.

For additional information on *Invasive Meningococcal Disease (IMD)*, please visit the CDC's website: [Meningococcal Disease Surveillance and Trends | Meningococcal | CDC](#).