

# Meningococcal Disease: Commonly Asked Questions

This information on meningococcal disease is pertinent for all children, adolescents, and college students. For information about specific populations, see the headers [Students](#), [Camp Attendees](#), and [Daycare Attendees](#).

## 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 each year, and 10-15% die despite receiving antibiotic treatment. Of those who survive, about 10-20% may lose limbs, become hearing impaired or deaf, have problems with their nervous system, including long-term neurologic problems, or have seizures or strokes. Less common manifestations of meningococcal disease include pneumonia and arthritis.

## How common is meningococcal disease?

The incidence of meningococcal disease has declined steadily in the U.S. since a peak of reported disease in the late 1990s. In 2021, the rate of meningococcal disease in the United States reached a historic low of 0.06 cases per 100,000 population. Among adolescents age 16–23, the incidence rate was 0.05 cases per 100,000 population, which equals 5 cases per 10 million people age 16–23 in 2021. Rates of meningococcal disease in the United States increased in 2023. Much of this increase was due to a sharp increase in serogroup Y disease. In 2023, 415 confirmed and probable meningococcal disease cases were reported in the United States (preliminary data), which is similar to the rate in 2014. 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). For the bacteria to spread, you must be in close contact with an infected person’s saliva. Close contact includes activities such as kissing, sharing water bottles, sharing eating/drinking utensils, sharing cigarettes, or being within 3-6 feet of someone infected who is coughing or sneezing.

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

High-risk groups include anyone with a damaged spleen or whose spleen has been removed, those with persistent complement component deficiency (an inherited immune disorder), HIV infection, those traveling to countries where meningococcal disease is very common, microbiologists and people who are routinely exposed to the organism and people who may have been exposed to meningococcal disease during an outbreak. People who live in certain settings such as first-year college students living on campus and military recruits are also at greater risk of disease caused by some serotypes.

## Is there a vaccine against meningococcal disease?

Yes, there are several different 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 vaccines (Bexsero and Trumenba) protect against serogroup B meningococcal disease for people age 10 and older. Pentavalent meningococcal vaccine protects against serogroups A, B, C, W, and Y. It may be administered to persons aged ≥10 years when both a quadrivalent meningococcal conjugate vaccine and meningococcal B vaccine are indicated at the same visit.

## How can I protect my child 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. The following are best practices:

- 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; 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.

## How can I obtain more information about meningococcal disease and vaccination?

You can contact your healthcare provider, local board of health, or the Massachusetts Department of Public Health (MDPH) Divisions of Epidemiology and Immunization at (617) 983-6800 or visit <https://www.mass.gov/info-details/school-immunizations>. For additional information, please visit the CDC's website: [Meningococcal Disease Surveillance and Trends | Meningococcal | CDC](#).

## Daycare Attendees

### Are children in daycare at increased risk for meningococcal disease?

Children under five years of age have a higher rate of meningococcal disease than older children, but attending daycare is not considered to increase the risk.

### Should my preschool-aged child receive the meningococcal vaccine?

At the current time, routine vaccination with the meningococcal vaccine is not recommended for healthy preschool children who are not in one of the high-risk groups. Parents of children who are at higher risk of infection because of certain medical conditions or other circumstances (see above, "Who is most at risk?") should discuss vaccination with their child's healthcare provider.

## Students and Campers

### Which students are most at risk for meningococcal disease?

College students who have close contact in residence halls, combined with social mixing activities (such as going to bars, clubs, or parties, participating in Greek life, sharing food or beverages, and other activities involving the exchange of saliva), may put college students at increased risk relative to others of the same age. People with close contact to or lengthy contact with confirmed cases are also at increased risk of developing invasive meningococcal disease.

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

No. Children attending day or residential camps are not considered to be at an increased risk for meningococcal disease because of their participation at camp.

### Should my school-aged child or adolescent receive the meningococcal vaccine?

Different meningococcal vaccines are recommended for a range of age and risk groups. Quadrivalent meningococcal conjugate vaccine (MenACWY) is recommended routinely for children 11-12 years of age, with a second dose at age 16, and is required for school entry for grades 7 and 11. College freshmen and other newly enrolled college students (under age 21) are also required to have received quadrivalent meningococcal conjugate vaccine regardless of whether they live in congregate housing. This includes individuals from other countries attending or visiting classes or educational programs as part of an academic visitation or exchange program. More information about exemptions from this requirement may be found in the MDPH document "Information about Meningococcal Disease, Meningococcal Vaccines, Vaccination Requirements and the Waiver for Students at Colleges and Residential Schools."

Meningococcal B vaccine is recommended for people over age 10 in certain relatively rare high-risk groups (e.g., 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). In addition, adolescents and young adults (16 through 23 years of age) who are not at high risk 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.

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. Talk with your doctor about which vaccines your child should receive.

### Shouldn't meningococcal B vaccine be required?

CDC's Advisory Committee on Immunization Practices has reviewed the available data regarding serogroup B meningococcal disease and the vaccines. At the current time, there is no routine recommendation and no statewide requirement for meningococcal B vaccination before going to college (although some colleges might decide to have such a requirement). As noted previously, adolescents and young adults (16 through 23 years of age) may be vaccinated with a serogroup B meningococcal vaccine, preferably at 16 through 18 years of age, to provide short-term protection against most strains of serogroup B meningococcal disease. This would be a decision between a patient or parent and a healthcare provider. These policies may change as new information becomes available.