SKIDMORE
COLLEGE

# Frequently Asked Questions and Answers About Meningococcal Meningitis

**What is meningococcal meningitis?**

Meningococcal meningitis is a rare but potentially fatal bacterial infection. The disease is expressed as either **meningococcal meningitis**, an inflammation of the membranes surrounding the brain and spinal cord, or **meningococcemia**, the presence of bacteria in the blood.

**What causes meningococcal meningitis?**

Meningococcal meningitis is caused by the bacterium *Neisseria meningitidis*, a leading cause of meningitis and septicemia (or blood poisoning) in teenagers and young adults in the United States. Meningitis and septicemia are the most common manifestations of the disease, although they have been expressed as septic arthritis, pneumonia, brain inflammation and other syndromes.

**How many people contract meningococcal meningitis each year? How may people die as a result?**

Rates of meningitis disease have been declining and in 2015, there were about 375 reported cases. About 10 to 15% of infected individuals die even with the use of antibiotics and of the survivors, about 11-19% will have some disability (deafness, loss of limb, nervous system problems). For some college students, such as freshman living in dormitories, there is an increased risk of meningococcal disease.

**How is meningococcal meningitis spread?**

Many people in a population can be a carrier of meningococcal bacteria (up to 11 percent) and usually nothing happens to a person other than acquiring natural antibodies. Meningococcal bacteria are transmitted through the air via droplets of respiratory secretions and by direct contact with an infected person. Direct contact, for these purposes, is defined as oral contact with shared items, such as cigarettes or drinking glasses, or through intimate contact such as kissing.

**What are the symptoms?**

The early symptoms usually associated with meningococcal meningitis include high fever, severe headache, stiff neck, rash, nausea, vomiting and lethargy, and may resemble the flu. Because the disease progresses rapidly, often in as little as 12 hours, prompt diagnosis and treatment are important to assuring recovery. Symptoms may appear 2 to 10 days after exposure, but usually within 5 days.

**Who is at risk?**

There is an increased risk of disease for young adults from age 16-21. Recent evidence indicates that college student residing on campus in residence halls appear to be at higher risk for meningococcal meningitis than college students overall. Further research released by the Centers for Disease Control and Prevention (CDC) shows freshmen living in dormitories have a six-fold increased risk for meningococcal meningitis than college students overall.

Although anyone can be a carrier of the bacteria that causes meningococcal meningitis, data indicate certain social behaviors, such as exposure to passive and active smoking, bar patronage and excessive alcohol consumption may put college students at increased risk for the disease. Patients with respiratory infections, compromised immunity, those in close contact to a known case and travelers to endemic areas of the world are also at increased risk. Cases and outbreaks usually occur in the late winter and early spring when school is in session.

**Why should students consider vaccination with the meningococcal vaccine?**

***CURRENTLY, IN NEW YORK STATE, VACCINATION WITH MENACWY IS REQUIRED FOR INCOMING COLLEGE STUDENTS WITHIN THE LAST 5 YEARS.***

Pre-exposure vaccination with Menveo or Menactra (MenACWY) enhances immunity to four strains (A,C,W,Y) of meningococcus. Pre-exposure vaccination with Bexsero or Trumenba (MenB) enhances immunity to one strain (B) of meningococcus. Serotypes B, C, and Y are responsible for the majority of meningitis cases in the United States. Serotype B is responsible for ~ 60% of meningitis cases in children less than 5 years old. Serotypes C, Y, and W are responsible for about 66% of all cases in children 11 years old and older. Serotype A is more prevalent in developing countries as in the meningitis belt in sub Saharan Africa.

MenB is recommended for certain categories of people with immune system disorder or those working with meningococcus bacteria in laboratories. Your primary care physician can help you decide which meningitis vaccine to receive.

**How effective is the vaccine?**

MenACWY vaccine is 85 to 100 percent effective in preventing infection from subtypes ACWY. Currently, the effectiveness of MenB is estimated to be 63-88%.

**Is the vaccine safe? Are there adverse effects to the vaccine?**

The vaccine is very safe and adverse reactions are mild and infrequent, consisting primarily of redness and pain at the site of injection lasting up to two days.

**Where can I get the meningococcal vaccine?**

Your local health care provider or county health department should be able to offer you the vaccine.

**What is the duration of protection?**
Protection provided by meningococcal vaccine (MCV4) wanes within 5 years following vaccination. At this time, CDC recommends "initial meningococcal vaccine at age 11-12, followed by a booster at age 16 to provide continued protection during peak years of vulnerability." As with any vaccine, vaccination against meningitis may not protect 100 percent of all susceptible individuals.

**How do I get more information about meningococcal disease and vaccination?**

Contact your healthcare provider or Skidmore College Student Health Services at health@skidmore.edu. Additional information is also available on the websites of the New York State Department of Health, www.health.state.ny.us; the Centers for Disease Control and Prevention (CDC), www.cdc.gov/meningococcal, and www.cdc.gov/vaccines/hcp/vis/index.html; and the American College Health Association (ACHA), www.acha.org.

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[1] Updated Recommendations for Use of Meningococcal Conjugated Vaccines – Advisory Committee on Immunization Practices (ACIP), 2010; January 28, 2011/Volume 60 (03); 72-6, https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6003a3.htm.
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