HELP PROTECT YOUR STUDENTS FROM

SEROGROUP B

MENINGOCOCCAL DISEASE
This brochure was developed in partnership with Pfizer, manufacturer of Trumenba® (Meningococcal Group B Vaccine).
Serogroup B meningococcal disease (MenB) is an uncommon but deadly disease that progresses rapidly (within 24 hours) and is often difficult to diagnose early enough to treat effectively.\(^1\)\(^2\)\(^3\) Despite appropriate medical treatment \(~10\%\) of people with MenB die and one in five survivors experience long-term physical and mental disabilities.\(^4\)\(^5\)\(^6\)

College-age persons—adolescents and young adults—are uniquely susceptible to meningococcal disease due to inherent environmental and social risk factors such as close-quartered living and sharing behaviors.\(^2\)\(^7\)\(^8\)\(^9\)

*Approximately 50-60 cases of MenB are reported annually in adolescents and young adults in the U.S.*
CDC’s surveillance (2014–2016) showed that college students are at increased risk for MenB vs. non-college students (Relative Risk = 3.54)\(^{10,11}\).

All college outbreaks from 2011 through 2017 have been MenB.\(^ {11,12,13,14}\)

Vaccination helps prevent meningococcal disease. Two separate vaccines are available to help protect against the most common serogroups of invasive meningococcal disease in the U.S.: MenB and MenACWY.\(^ {15}\)

Outbreaks cause tremendous anxiety on campus and inflict substantial emotional and physical stress on university communities, including an unforeseen financial burden. Therefore, prevention by proactive vaccination is the optimal approach.

*Each bubble represents one campus.

**U.S. Centers for Disease Control and Prevention Advisory Committee on Immunization Practices**
WHAT CAUSES MENINGOCOCCAL DISEASE?

The bacterium, *Neisseria meningitidis*, or meningococcus, causes meningococcal disease. The bacterium is encased by a polysaccharide (or sugar) capsule that defines the meningococcal type or serogroup. There are six serogroups—A, B, C, W, Y, and X—that cause most disease worldwide. In the U.S., serogroups B, C, and Y cause the majority of meningococcal disease.

HOW DOES MENINGOCOCCAL DISEASE SPREAD AND WHO IS AT RISK?

College-age persons often carry the bacteria in the back of their throats and can therefore spread the bacteria to other individuals by close or lengthy contact with infected saliva, like kissing or coughing, particularly if they are living in the same place (e.g., household, dormitory). Further, this age group is at increased risk of disease due to increased social mixing, crowded living conditions, smoking, and other behaviors.

Other groups at risk are men who have sex with men (MSM), individuals with certain immune complement deficiencies, those individuals with impaired spleens (e.g., sickle cell disease), and persons with human immunodeficiency virus (HIV) disease.

MENINGOCOCCAL DISEASE IS UNCOMMON BUT VERY SERIOUS

- Can be difficult to diagnose early enough to treat effectively
- Progresses rapidly, within 24 hours
- Can result in death or long-term disabilities in survivors
WHAT ARE THE SYMPTOMS OF MENINGOCOCCAL DISEASE?

Initially meningococcal disease may present with **flu-like symptoms (fever, headache, nausea, vomiting, diarrhea)** with rapid progression within 24 hours to the most common clinical presentations of invasive meningococcal disease: meningitis and meningococcemia/sepsis.3,20

- **Meningitis** is an infection of the coverings of the brain and spinal cord. Symptoms include fever, headache, stiff neck, decreased alertness, photophobia, confusion, and seizures.20

- **Sepsis** is a bloodstream infection. Symptoms include fever; shaking chills; decreased blood pressure; vomiting or diarrhea; cold hands and feet; severe aches or pain in the muscles, joints, chest, or abdomen; rapid breathing; and a typical rash characterized by a purplish coloration, irregular borders, and not disappearing when pressed with a clear glass (the “glass test”).20

The disease may progress to disseminated intravascular coagulation (causing bleeding into the skin and other organs and widespread clotting of small blood vessels) and septic shock. Multi-organ failure may then occur associated with adrenal hemorrhage.20

WHAT IS THE EPIDEMIOLOGY OF MENINGOCOCCAL DISEASE?

Incidence of meningococcal disease across all serogroups and across all age groups of the U.S. population was 0.12/100,000 population in 2016. Among 16–23-year-olds, the incidence was two times that of the general population (0.21/100,000). Further, serogroup B was the leading cause of meningococcal disease among U.S. adolescents and young adults, including both sporadic cases and outbreaks; MenB had the highest proportion of meningococcal disease cases across all disease-causing serogroups in the U.S.—approximately 60%.10

CDC’s enhanced meningococcal surveillance from 2014–2016 showed that college students are at increased risk for MenB vs. non-college students (Relative Risk = 3.54).10,11

Immunization with both MenB and MenACWY vaccines helps protect against the most common serogroups of meningococcal disease in the U.S.15
**Advisory Committee on Immunization Practices Recommendations**

**Serogroup B Vaccines**

All healthy adolescents and young adults (16–23 years) may be vaccinated, preferably between 16–18 years to maximize the likelihood that protection would last through the risk period of high risk which peaks around 19 years.†,19

Adolescents and young adults at increased risk due to a medical condition (eg, immunocompromised, complement deficient) or during a MenB outbreak should be vaccinated.‡ The individual must use the same vaccine for the entire series. The serogroup B vaccines are not interchangeable.21

**Serogroup ACWY Vaccines**

All 11–12-year-olds should be vaccinated with a single dose; since protection wanes, a booster dose should be given at age 16 so adolescents continue to have protection during the peak risk period (16–23 years).§,21

**CDC Immunization Platforms Enable Meningococcal Vaccinations**

CDC provides two immunization platforms that include meningococcal vaccinations. Additional details on the full immunization schedules can be found at: https://www.cdc.gov/vaccines/schedules/index.html.23

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1 Category B recommendation: Recommendation for individual clinical decision making. The American Academy of Pediatrics recommends that health care providers “discuss the benefits, risks, and costs with [patients], working with them to determine what is in their best interest.”22

2 Category A recommendation: Recommendation for all persons in an age or risk factor–based group.
Pre-Matriculation Vaccination Plan

Institutions are urged to initiate a pre-matriculation vaccination plan that requires or recommends both MenB and MenACWY vaccination in accordance with ACIP recommendations to help ensure that college-age individuals are adequately protected. Local and state health departments can assist with developing this plan.

Communication Plan

Institutions should include immunization information on MenB, MenACWY, and other required or recommended vaccines in all appropriate verbal and written communication with students and parents.

More information on MenB vaccine recommendations is available at www.acha.org/Vaccine_Recommendations
REFERENCES


REFERENCES (CONTINUED)


