



Meningococcal Disease

Information about the Disease and Vaccines¹

What is Meningococcal Disease?

Meningococcal disease is a bacterial infection that can cause meningitis (a severe infection and inflammation of the thin lining covering the brain and spinal cord), sepsis (a blood stream infection), pneumonia or joint infections. The disease can be quite severe and, even with prompt treatment, may result in brain damage, hearing loss, loss of limbs or death. Although the meningococcal bacterium has many different subtypes, five (subtypes A, B, C, Y and W-135) cause almost all cases of invasive disease.

What are the signs and symptoms of meningococcal disease?

The most common signs and symptoms of meningococcal disease include high fever, headache, stiff neck and development of a dark purple rash. Symptoms may develop within hours of exposure, or they may take one to two days to appear. Meningococcal disease is relatively rare in the United States (only about 2,000 – 3,000 cases occur each year in the U.S.), and the symptoms may at first appear similar to other illnesses such as the flu, which can unfortunately lead to delayed diagnosis and treatment. Symptoms progress rapidly, often within just a few hours, and persons with meningococcal disease can be seriously ill within 12-24 hours after symptoms start. Between 10-15% of people who develop the disease die, even with prompt, appropriate antibiotic treatment and supportive care. Of those who do recover, up to 20% suffer some serious long term effect.

How does Meningococcal Disease spread?

The disease is spread person-to-person through the exchange of respiratory and throat secretions (e.g., through coughing, kissing or sharing eating utensils). Only people who have been in close contact with a person who becomes sick, such as a household member or a girlfriend or boyfriend, are at risk. The bacteria are not spread by casual contact or by simply breathing the air where a person with meningococcal disease has been, as might occur in a regular classroom or office setting.

Can Meningococcal Disease be treated?

Meningococcal disease can be treated with antibiotics. However, it is critical that treatment be started early in the course of the disease.

Who is at risk for developing Meningococcal Disease?

Anyone can get meningococcal disease. However, persons at increased risk include infants, travelers to places where meningococcal disease is common (e.g., certain African countries, Saudi Arabia), people with damaged or missing spleens and people with certain blood diseases.

Other factors make it more likely an individual will develop meningococcal disease, including having a previous viral infection, living in a crowded household, having an underlying chronic illness and being exposed to cigarette smoke (either directly or second-hand).

Studies have also shown that college freshmen who live in dormitories are at an increased risk of acquiring meningococcal disease compared with others their age, mostly due to lifestyle factors such as crowded living situations, bar patronage, active or passive smoking, irregular sleep patterns and sharing of personal items.

Are there vaccines that protect against Meningococcal Disease?

Yes, there are vaccines that protect against some serogroups of meningococcal bacteria.

Two vaccines are available in the United States. The previously licensed version of meningococcal vaccine, Menomune™, is intended for persons aged 2 years and older, and requires booster doses every 3-5 years. Since 2005, a vaccine known as Menactra™ has been available for use in people 11-55 years of age. Menactra™ is expected to provide better protection than Menomune™ and will probably not require booster doses. Both vaccines are effective in preventing 4 types of meningococcal disease (A, C, Y and W-135). Unfortunately, there is currently no vaccine available that prevents the third most common type of meningococcal disease (type B).

What are the side effects of the vaccine(s)?

Both vaccines currently available are safe and effective vaccines. However, about half of people who get meningococcal vaccines experience mild side effects, such as redness or pain where the shot was given. These symptoms usually last for one or two days.

A small percentage of people who receive the vaccine develop a fever. Severe reactions, such as a serious allergic reaction, are very rare.

A serious nervous system disorder called Guillain-Barre Syndrome has been reported among some people who received Menactra™. This happens so rarely that it is currently not possible to determine if the vaccine might be a factor. Even if it is, the risk is extremely small.

Who should get the Meningococcal Vaccine?

The vaccine is recommended for all adolescents entering middle school (11-12 years old) and high school (15 years old), and all first year college students living in dormitories. Although the risk for meningococcal disease among non-freshmen college students is similar to that of the general population of the same age, there is no medical reason that other students who wish to decrease their risk of meningococcal disease cannot receive the vaccine.

Vaccination is also recommended for U.S. military recruits, anyone who has a damaged spleen or whose spleen has been removed, those with certain immune system disorders, certain laboratory workers, anyone who is traveling to the countries which have an outbreak of meningococcal disease, and those who might have been exposed to meningococcal disease during an outbreak.

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

Contact your healthcare provider or Skidmore College Student Health Services. Additional information is also available on the websites of the New York State Department of Health, www.health.state.ny.us; the Center for Disease Control and Prevention, www.cdc.gov/ncidod/dbmd/diseaseinfo/meningococcal_g.htm; and the American College Health Association, www.acha.org.

¹ **Disease Listing, Meningococcal Disease, General Info/CDC Bacterial, Mycotic Diseases**, Centers for Disease Control and Prevention, 1600 Clifton Rd., Atlanta, GA, 30333, March 18, 2008.

Vaccine Information Statement, Meningococcal, Centers for Disease Control and Prevention, 11/16/06.

Meningococcal: Questions and Answers, Immunization Action Coalition, April 2007.

Meningitis on Campus, American College Health Association, 2007.