

Meningitis Fact Sheet

Overview

Meningococcal meningitis is a potentially life-threatening bacterial infection caused by *Neisseria meningitidis*, a leading cause of bacterial meningitis in older children and young adults in the United States. The disease most commonly is expressed as either meningococcal meningitis, an inflammation of the membranes surrounding the brain and spinal cord, or meningococemia, a serious infection of the blood.

Meningococcal meningitis strikes about 2,500 Americans each year, leading to death in approximately 10 to 15 percent of the cases. It is estimated that 100 to 125 cases of meningococcal disease occur annually on college campuses and 5 to 15 students die as a result. The disease can result in permanent brain damage, hearing loss, learning disability, limb amputation, kidney failure or death.

The incidence of meningococcal meningitis has increased since the early 1990's, including cases at U.S. colleges and universities. Data suggests that certain social behaviors, such as exposure to passive and active smoking, bar patronage and excessive alcohol consumption, may increase students' risk for contracting the disease. Recent data also show students living in dormitories, particularly freshmen, have a six-fold increased risk for the disease.

Strains / Serogroups

There are five predominant strains or serogroups of *N. meningitidis* that account for most cases of meningococcal meningitis. These are A, B, C, Y and W-135. Serogroups A, C, Y and W-135 account for the majority of cases of meningococcal disease on college campuses in the United States.

Transmission and Symptoms

Meningococcal meningitis is transmitted through respiratory secretions (e.g., coughing and sneezing) and direct contact with persons infected with the disease. Oral contact with shared items such as cigarettes or drinking glasses, or intimate contact such as kissing could put a person at risk for contracting meningococcal meningitis. People identified as close contacts of a patient are at an increased risk for disease and should receive antibiotics to prevent meningitis.

Many normal healthy people become carriers of these bacteria and usually nothing happens to the person other than developing natural antibodies. Very rarely, for reasons such as suppressed immunity or concurrent respiratory illness, the bacteria invades the body, causing disease.

Meningococcal meningitis usually peaks during late winter and early spring. The disease can easily be misdiagnosed as something less serious, because symptoms are similar to the flu. The most common symptoms include high fever, headaches, stiff neck, confusion, nausea, vomiting, lethargy and once the disease has progressed, a rash can appear, usually on the arms or legs. Anyone with similar symptoms should contact a physician immediately. If untreated, often within hours of the onset of symptoms, the disease can progress rapidly and can lead to shock and death.

Persons at Risk

Meningococcal meningitis can affect people at any age. Certain groups are at increased risk for contracting the disease including those in close contact with a known case, individuals with

compromised immune systems, and persons traveling to endemic areas of the world.

Vaccination Recommendations for College Students

A vaccine is available against four of the most common strains of *N. meningitidis* in the United States. (A, C, Y, W-135). The vaccine is 85 to 100 percent effective in preventing disease in older children and young adults. Studies suggest that up to 80 percent of college cases are vaccine preventable.

The Center for Disease Control and Prevention (CDC), the American College Health Association (ACHA), and the American Academy of Pediatrics (AAP) now recommend that college students, particularly freshmen who plan to live in dormitories, and their parents, learn about meningococcal meningitis and the potential benefits of vaccination. Other college undergraduates wishing to reduce their risk may also choose to be vaccinated.

For More Information

For more information on meningitis go to:

www.cdc.gov/ncidod/DBMD/diseaseinfo

or <http://www.mayoclinic.com/health/meningitis/DS00118>