What is Meningococcal disease?

Meningococcal disease 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 disease?

Meningococcal disease is caused by the bacterium *Neisseria meningitidis*, a leading cause of meningitis and septicemia (or blood poisoning) in the United States. Meningitis is one of the most common manifestations of the disease, although it has been known to cause septic arthritis, pneumonia, brain inflammation and other syndromes.

How many people die from Meningococcal disease each year?

Meningococcal disease strikes about 3,000 Americans each year and is responsible for approximately 300 deaths annually. It is estimated that 100 to 125 cases of meningococcal disease occur annually on college campuses and five to 15 students die as a result.

How is Meningococcal disease spread?

Meningococcal disease is transmitted through the air via droplets of respiratory secretions and 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 disease include 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, students are urged to seek medical care immediately if they experience two or more of these symptoms concurrently.

Who is at risk?

Recent evidence found that students residing on campus in dormitories appear to be at higher risk for meningococcal disease than college students overall. Further research recently released by the CDC shows that freshmen living in dormitories have a six times higher risk of contracting meningococcal disease than college students overall.

Although anyone can come in contact with the bacteria that causes meningococcal disease, data also indicates certain social behaviors, such as exposure to passive and active smoking, bar patronage, and excessive alcohol consumption, may put 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.

How often do outbreaks occur on college campuses?

From 1980 to 1993, there were 21 outbreaks, three of which occurred in colleges. From 1994 to 1996, there have been 26 outbreaks, four of which occurred in colleges. Between 1986 and 1993, an outbreak was defined as five cases of the same serotype in 100,000 people with at least three occurring within three months. From 1994 to present, 10 cases of the same serotype in 100,000 people with at least three occurring within three months constitute an outbreak.

Is one type of serogroup of Meningococcal disease more common in college students?

Recent evidence shows the epidemiology of meningococcal disease is changing with a majority of cases (65 percent) in the college age group caused by either serotype C, Y, or W-135, which are all vaccine-preventable.
Who should be vaccinated pre-exposure?

*Maryland State Law requires that students living in residence halls be either vaccinated or make a choice to waive the vaccination after being informed about the disease by the college.*

If you are not living in college housing, the ACHA recommends that the following groups be vaccinated pre-exposure:

- Entering college students, particularly those living in dormitories or resident halls, who elect to decrease their risk for meningococcal disease.
- Undergraduate students 25 years of age or under who request vaccination in order to decrease their risk for disease and are not pregnant.
- Students with medical conditions that compromise immunity (e.g., HIV, absent spleen, antibody deficiency).
- Students traveling to areas of the world with endemic meningococcal disease.

How effective is the vaccine?

The meningococcal vaccine has been shown to provide protection against the most common strains of the disease, including serogroups A, C, Y and W-135. The vaccine has shown to be 85 to 100 percent effective in serogroups A and C in older children and adults.

Is the vaccine safe? Are there adverse side 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.