

## **Meningococcal Meningitis**

### **What is meningococcal meningitis?**

Meningococcal disease is a potentially life-threatening bacterial infection, which most commonly presents as either meningococcal meningitis, an inflammation of the membranes surrounding the brain and spinal cord, or meningococcemia, a presence of bacteria in the blood.

Meningococcal disease is caused by *Neisseria meningitidis*, which has become the leading cause of bacterial meningitis in older children and young adults in the U.S. Meningococcal disease strikes about 3,000 Americans each year, leading to death in approximately 10-15 % of cases, which translates into 300 deaths annually. It is estimated that 100-125 cases of meningococcal disease occur annually on college campuses and 5-15 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 meningitis outbreaks of serogroup C has risen in the past 10 years, 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 residence halls, particularly freshman, have a sixfold increased risk for the disease.

### **What are the symptoms of meningococcal disease?**

The early symptoms usually associated with meningococcal disease may include high fever, severe headache, stiff neck, rash, nausea/vomiting and lethargy, and may resemble the flu. Anyone with these symptoms should contact a physician immediately. If untreated, often within a few hours of the onset of symptoms, the disease can progress rapidly and can lead to shock and death.

### **How is meningococcal disease transmitted?**

Meningococcal bacteria are transmitted through the air via droplets of respiratory secretions and direct contact with persons infected with the disease. Oral contact with shared items, such as cigarettes or drinking glasses, or through intimate contact such as kissing could put a person at risk for acquiring the infection.

### **Vaccination Recommendations for College Students**

On October 20, 1999, the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC) voted to recommend that college students, particularly freshmen living in residence halls, be educated about meningococcal meningitis and the potential benefits of vaccination.

ACIP further recommends that immunization should be provided or made easily available to those who wish to reduce their risk for meningococcal meningitis. Other undergraduate students wishing to reduce their risk for meningococcal meningitis can also choose to be vaccinated. The American College Health Association (ACHA) supports the ACIP recommendation. In June of 2002, the Indiana State Legislature passed a law requiring that students receive information about *Meningococcus* and the availability of a vaccine. The student must sign a statement that they have received the information or must receive the meningitis vaccination before attending college for the first time.

A quadrivalent meningitis vaccine is now available against four of the most common strains of *N. meningitidis* in the U.S. The vaccine is 85-100% effective in preventing serogroups A and C meningitis in older adults and children. The vaccine is generally well tolerated, and may provide immunity for 3 - 5 years.

### **How can I protect myself?**

For more information on meningococcal meningitis and the vaccine, please discuss this with your personal physician prior to coming to Vincennes University.

The following websites offer further information on meningitis and the vaccine:

<http://www.cdc.gov/meningitis/index.html>  
<http://www.nfid.org/idinfo/meningitis>