

**I. Please explain the meningitis vaccine requirement.**

In the 2006 Legislative session, House Bill 154 was approved requiring students admitted to post-secondary education institutions to be vaccinated against meningococcal disease as a condition of registration. The bill was amended to apply to first-time freshmen and students living in on-campus housing.

**II. What is meningococcal disease?**

Meningococcal disease is a rare, but potentially fatal, bacterial infection, and most commonly leads to meningitis, an inflammation of the membranes surrounding the brain and spinal cord, or meningococcal septicemia, an infection of the blood.

**III. What causes meningococcal disease?**

Meningococcal disease is caused by *Neisseria meningitidis*, a leading cause of bacterial meningitis in older children and young adults in the United States. There are five types of bacteria (or serogroups) for meningococcal disease that circulate worldwide: A, B, C, Y, and W-135. Evidence shows approximately 70 to 80 percent of cases in the college age group are caused by serogroup C, Y, or W-135, which are potentially vaccine-preventable.

The number of cases caused by each type varies by location. For instance, type A rarely causes cases in the United States but is the most common cause of epidemics in Africa and Asia. Different age groups appear to be disproportionately affected by different types. Type B is the most common type in infants and recently was associated with cases in Oregon, while type Y causes the majority of cases in those 65 years and older. Type C is associated with outbreaks in communities and schools, including colleges and universities. The proportion of disease caused by different types of the bacteria also changes over time.

**IV. How many people get meningococcal disease each year?**

Meningococcal disease strikes 1,400 to 3,000 Americans each year and is responsible for approximately 150 to 300 deaths. Adolescents and young adults account for nearly 30 percent of all cases of meningitis in the United States. Approximately 100 to 125 cases of meningococcal disease occur on college campuses each year, and five to 15 students will die as a result.

**V. How serious is meningococcal disease?**

Meningococcal infection is contagious and progresses very rapidly. It can easily be misdiagnosed as the flu or other minor febrile infections, and, if not treated early, meningitis can lead to death or permanent disabilities. One in five of those who survive will suffer these long-term side effects, such as brain damage, hearing loss, seizures, or limb amputation.

**VI. How is meningococcal disease spread?**

Meningococcal disease is spread person-to-person through the air by respiratory droplets (e.g., coughing, sneezing). The bacteria also can be transmitted through direct contact with an infected person, such as oral contact with shared items like cigarettes or drinking glasses, and through kissing.

**VII. What are the symptoms of meningococcal disease?**

Symptoms of meningococcal disease often resemble those of the flu or other minor febrile illnesses, making it sometimes difficult to diagnose. Symptoms may include high fever, severe headache, stiff neck, rash, nausea, vomiting, fatigue, and confusion.

Students who notice these symptoms in themselves, friends or others should contact their college health service or hospital immediately.

**VIII. What are the complications of meningococcal disease?**

If not treated early, meningococcal disease can lead to death or permanent disabilities. One in five of those who survive will suffer long-term side effects, such as brain damage, hearing loss, seizures, or limb amputation.

**IX. Who is at risk of getting meningococcal disease?**

Anyone can get meningococcal disease. Certain groups, though, are at higher risk. These include infants, adolescents, and college students, particularly those living in residence halls. Disease rates decline after infancy, but begin to rise again in early adolescence, peaking between the ages of 15 and 20 years.

Due to lifestyle factors, such as crowded living situations, bar patronage, active or passive smoking, irregular sleep patterns, and sharing of personal items, some college students may be more likely to acquire meningococcal disease than the general college population.

Certain conditions also increase a person's susceptibility to the disease. Persons with immature or damaged immune systems are at increased risk. Respiratory tract infections also increase a person's risk of getting the disease. There also may be certain genetic factors that increase the risk of infection.

## **X. Should I be vaccinated\*?**

The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) and the American College Health Association (ACHA) recommend that all first-year students living in residence halls be vaccinated against meningococcal disease. Other college students under 25 years of age who wish to reduce their risk for the disease may choose to be vaccinated.

## **XI. Why should college students consider getting the meningococcal vaccine?**

Meningococcal vaccination is recommended by ACIP and ACHA for all first-year students living in residence halls. Data also show an increased incidence of meningococcal disease among adolescents and young adults, including college students. Additionally, in persons 15 to 24 years of age, 70 to 80 percent of cases are caused by vaccine-preventable strains.

## **XII. Who should be vaccinated\*?**

- All first-year students living in residence halls
- Undergraduate students 25 years of age or younger who wish to reduce their risk for the disease may choose to be vaccinated
- Students with medical conditions that compromise immunity (e.g., HIV, absent spleen, antibody deficiency, chemotherapy, immuno-suppressants)
- Other groups (non-college age) are recommended for vaccination
  - Students at the time of high school entry
  - Young adolescents at the pre-adolescent doctor visit (11 to 12 years of age)
  - Travelers to endemic areas of the world
  - Lab workers with potential exposure to meningococcus

## **XIII. What vaccines are available and how effective are they?**

There are currently two types of vaccine. *Meningococcal polysaccharide vaccine (MPSV4)* has been available since the 1970's. *Meningococcal conjugate vaccine (MCV4)* was licensed in 2005. This vaccine is expected to give better, longer lasting protection and it prevents people from carrying the dormant state of meningitis.

Meningococcal vaccines cannot prevent all types of the disease. Both vaccines listed above provide protection against four of the five types of *N. meningitidis* bacteria that cause meningococcal disease in the United States – types A, C, Y, and W-135. In persons 15 to 24 years of age, 70 to 80 percent of cases are caused by potentially vaccine-preventable strains. Both vaccines work well and protect about 90% of those who get it.

**XIV. Is vaccination safe? Are there any adverse side effects?**

The vaccine is safe and effective, and adverse reactions are mild and infrequent. The most commonly reported reactions by adolescents and adults in clinical studies were pain at the injection site, headache, fever, and fatigue. These respond to simple measures (ibuprofen or acetaminophen) and resolve spontaneously within a few days.

Serious reactions, within a few minutes to a few hours of the shot, are very rare.

A few cases of Guillan-Barré Syndrome, a serious nervous system disorder, have been reported among people who got MCV4. There is not enough evidence yet to tell whether they were caused by the vaccine. This is being investigated by health officials.

**XV. Who should not get the vaccine?**

- Anyone who has ever had a severe (life-threatening) allergic reaction to a previous dose of either meningococcal vaccine should not get another dose.
- Anyone who has a severe (life-threatening) allergy to any vaccine component should not get the vaccine.
- Anyone who is moderately or severely ill at the time the vaccine is scheduled should probably wait until they recover. Ask your doctor or nurse. People with a mild illness can usually get the vaccine.
- Anyone who has ever had Guillan-Barré Syndrome should talk with their doctor before getting MCV4.
- Meningococcal vaccines may be given to pregnant women. However, MCV4 is a new vaccine as has not been studied in pregnant women as much as MPSV4 has. It should be used only if clearly needed.
- Meningococcal vaccines may be given at the same time as other vaccines.

**XVI. Does Franciscan Missionaries of Our Lady University offer the meningococcal vaccine on campus?**

There is no clinic on campus; however, meningococcal vaccine is available to all University students at the Total Occupational Medicine Clinic at 3333 Drusilla Lane. Students should call ahead to check the availability of vaccine by dialing the clinic at 924-4460.

**XVII. What is the cost of the meningococcal vaccine?**

The Total Occupational Medicine Clinic offers the vaccine to our University students at the discounted price of \$90.00 (price is subject to change without notice). Be prepared

to show proof of student status i.e. student ID, fee bill, etc. Payment must be made at time of service. Visa and MasterCard are accepted.

**XVIII. Whom can students and parents contact for additional information about meningococcal meningitis and the vaccine?**

For additional information on meningococcal disease and vaccination, parents and students can call the Director of Campus Health and Safety at 768-1755. Additional information is available at the websites of the American College Health Association, [www.acha.org/meningitis](http://www.acha.org/meningitis) , and the Centers for Disease Control and Prevention, <http://www.cdc.gov/meningitis/index.htm> or call 1-800-232-4636.

**\*The meningitis vaccine is mandatory for Physician's Assistant and Clinical Laboratory Students.**