



## SAN DIEGO STATE UNIVERSITY

Student Health Services  
5500 Campanile Drive  
San Diego, CA 92182-4701  
TEL: 619-594-4325  
FAX: 619-594-3638  
<http://shs.sdsu.edu>

### General Information About Meningococcal Meningitis Exposure

#### What is the situation?

An SDSU student became ill on October 12 and was hospitalized October 14 for presumed meningococcal meningitis. The student is undergoing treatment. SDSU Student Health Services and San Diego County health authorities are concerned about the student and those who had exposure to the student. We are working with San Diego County Public Health Services to identify those who are at highest risk of being infected with this bacterium and treat those who are SDSU students at Student Health Services. These SDSU students will be treated at Student Health Services without an appointment by coming to our Nurse Assessment area on the first floor of Calpulli Center, 8:30 am-4:30 pm, Monday-Friday.

#### What is prophylactic treatment and who should receive it?

- According to California Department of Public Health guidelines, close contacts should receive preventive antibiotics (“prophylaxis”). This is defined as those living in the same household, sharing sleeping arrangements, and those who have been exposed to direct contamination of nose or mouth by oral or nasal secretions of a case. Oral exposure could occur through kissing, sharing drinks, toothbrushes, unwashed eating utensils, lip balms or cigarettes/ other smoking products, or close face-to-face contact (e.g, at a party), especially if prolonged.
- Chemoprophylaxis (preventive antibiotic medication) is recommended for close contacts of the ill student during October 5-14, 2014. For those with exposures before October 5, antibiotic prophylaxis is unlikely to be of benefit. Those students who have had the highest chance of exposure to the infected individual should receive medication at Student Health Services.
- Antibiotic treatment is not recommended for casual contacts (sitting in the same classroom, restaurant, transportation, workplace, or most social contacts), or for health care or emergency technician contacts unless the oral/nasal contact described above has occurred.
- Preventive antibiotics include:
  - Ciprofloxacin (Cipro) 500 mg single oral dose (contraindications pregnancy and children under age 9 years). *This preferred antibiotic is available at SDSU Student Health Services at no charge.*
  - Ceftriaxone (Rocephin) 250 mg in single injection. *This antibiotic is available at SDSU Student Health Services at no charge.*
  - Rifampin 600 mg, orally, every 12 hours for 2 days. This antibiotic is available at some local pharmacies.

#### Should a student receive meningococcal vaccine?

- While community-wide vaccination is not recommended in this isolated case, Student Health Services encourages vaccination of those who desire it to lower future risks.
- From prior epidemiological studies, those college students who are at the highest risk are freshmen living in campus residences.
- Other risk factors for meningococcal disease include those who
  - Have a lack of a functioning spleen (through surgery or diseases such as sickle cell anemia)
  - Smoke or inhale second hand smoke
  - Consume alcoholic drinks
  - Frequent parties or bars

#### Should a student have a throat culture to check for presence of meningococcal infection?

No. Colonization may occur in up to 5% of the U.S. population, and presence of the bacteria is not predictive of future disease. There are no studies that indicate that treating patients with positive throat cultures with antibiotics or vaccination lowers future risk.

#### Who should concerned students and parents contact?

They may speak with an advice nurse by calling 619-594-4325 and press 2, or check information on our web site [shs.sdsu.edu](http://shs.sdsu.edu). If members of the public have additional questions about meningitis or meningococcal disease, they may contact the San Diego County Public Health Service Epidemiology Division at 619-692-8499.



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**QUESTIONS AND ANSWERS (Q&A)**

Frequently Asked Questions and Answers  
About Meningococcal Meningitis

- **What is meningococcal meningitis?**  
Meningococcal meningitis 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 meningitis?**  
Meningococcal meningitis is caused by the bacterium *Neisseria meningitidis*, a leading cause of meningitis and septicemia (or blood poisoning) in teenagers and young adults in the United States. Meningitis and septicemia are the most common manifestations of the disease, although they have been expressed as septic arthritis, pneumonia, brain inflammation and other syndromes.
- **How many people contract meningococcal meningitis each year? How many people die as a result?**  
Meningococcal meningitis 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 5 to 15 students die as a result.
- **How is meningococcal meningitis spread?**  
Many people in a population can be a carrier of meningococcal bacteria (up to 11 percent) and usually nothing happens to a person other than acquiring natural antibodies. Meningococcal bacteria are transmitted by direct contact with an infected person and through the air via sneezed or coughed droplets of respiratory secretions. 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 meningitis include high 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, prompt diagnosis and treatment are important to assuring recovery.
- **Who is at risk?**  
Recent evidence indicates that college students residing on campus in dormitories or residence halls appear to be at higher risk for meningococcal meningitis than college students overall. Further research recently released by the Centers for Disease Control and Prevention (CDC) shows freshmen living in dormitories have a sixfold increased risk for meningococcal meningitis than college students overall.

Although anyone can be a carrier of the bacteria that causes meningococcal meningitis, data indicate certain social behaviors, such as exposure to passive and active smoking, bar patronage and excessive alcohol consumption, may put college 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 in the population at large? 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. In 2013, there were clusters of meningococcal serogroup B at Princeton University and UCSB.
- **Is one type of serogroup of meningococcal meningitis more common in college students?**  
Recent evidence shows the epidemiology of meningococcal meningitis 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. Rates of mortality and complications are higher for these serogroups compared to serogroup B.



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- **Does the CDC recommend vaccination for college students?**  
The CDC's Advisory Committee on Immunization Practices (ACIP) recommends that college students, particularly freshmen living in dormitories, 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 freshmen 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.
- **Why should college students consider vaccination with the meningococcal vaccine?**  
Data from the CDC demonstrate that sub-populations of college students are at increased risk for meningococcal meningitis. Pre-exposure vaccination enhances immunity to four strains of meningococcus that cause 65 to 70 percent of invasive disease and therefore reduces a student's risk for disease. Development of immunity after vaccination requires 7 to 10 days.
- **Who should consider being vaccinated?**
  - Freshmen college students, particularly those living in dormitories or residence halls, who elect to decrease their risk for meningococcal meningitis
  - Undergraduate students 25 years of age or younger 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)
- **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 is 85 to 100 percent effective in serogroups A and C in older children and adults. A vaccine for serogroup B is under review for approval by the FDA (October 2014).
- **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.
- **What is the duration of protection?**  
The duration of the meningococcal vaccine's efficacy is approximately three to five years. As with any vaccine, vaccination against meningitis may not protect 100 percent of all susceptible individuals.
- **Does San Diego State University offer the meningococcal meningitis vaccine on campus?**  
SDSU Student Health Services offers the meningococcal vaccine for those students who wish to reduce their risk for disease. If you desire an immunization, please make an appointment online at [healthconnect.sdsu.edu](http://healthconnect.sdsu.edu) or call Student Health Services at 619-594-4325 and press "1" to make an appointment.
- **What is the cost of the meningococcal vaccine?**  
The cost of the meningococcal vaccine is currently \$91.
- **Who can students and parents contact for additional information on meningococcal meningitis and the vaccine?**  
For additional information on meningococcal meningitis and the vaccine, parents and students, see <http://www.cdc.gov/meningococcal/about/index.html> or call SDSU Student Health Services at 619-594-4325.