



Schreiner
University

Health and Wellness Bulletin ◆

Meningococcal Disease

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Where are we?

The Health, Wellness and Counseling Center is in the Mountaineer Center on the campus of Schreiner University.
Ask for directions at the Information Kiosk .

WHO'S WHO



Director-Health & Wellness:
Gloria Algeo, R.N.
Physician
Dr. Thomas Noonan
Nurse
Sandy Hill, R.N.
Director-Counseling
Carolyn Osborn
Administrative Assistants
Duane Whitlow
Kay Eissler

HOURS

The medical clinic is open from 9:00 a.m. until 5:00 p.m. Mon—Fri

For appointments with **Dr. Noonan** call 830-682-7279
Ms. Algeo and **Ms. Hill** accept walk-in patients.

FAQ (and answers) about Meningococcal Disease

1. 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.

2. What causes meningococcal disease?

Meningococcal disease is caused by *Neisseria meningitides*, 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.

3. 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 campuses each year, and five to fifteen students will die as a result.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

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Important Information about Bacterial Meningitis

Bacterial Meningitis is a serious, potentially deadly disease that can progress extremely fast — so take utmost caution. It is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain. The bacterium that causes meningitis can also cause a serious infection of the blood. Bacterial meningitis can be quite severe and may result in brain damage, hearing loss, or learning disability. This disease strikes about 3,000 Americans each year, including 100-125 on college campuses, leading to 5-15 deaths among college students every year. There is a treatment, but those who survive may develop severe health problems or disabilities.

What are the symptoms?

High fever • Severe headache • Stiff neck • Vomiting • Seizures
Discomfort looking into bright lights • Nausea • Lethargy
Rash or purple patches on skin • Confusion and sleepiness
There may be a rash of tiny red-purple spots caused by bleeding under the skin. These can occur anywhere on the body.

These symptoms can develop over several hours, or they may take 1 to 2 days. The more symptoms, the higher the risk, so when these symptoms appear seek immediately medical attention.

How is bacterial meningitis diagnosed?

Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.

Early diagnosis and treatment are very important. If symptoms occur, the patient should see a doctor immediately to improve the likelihood of recovery.

How is the disease spread?

The disease is spread when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come into contact with respiratory or throat secretions. Being in crowded situations may put young people at greater risk for bacterial meningitis.

How do you increase your risk of getting the disease?

- Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.
- Living in close conditions (such as sharing a room/suite in a dorm or

group home).

- Anyone with direct contact with a patient's oral secretions (such as a boyfriend or girlfriend would be considered at risk for acquiring the infections.

What are the possible consequences?

Death (in 8 to 24 hours from perfectly well to dead) • Coma
Permanent brain damage • Kidney failure • Learning disability
Hearing loss, blindness • Gangrene • Convulsions
Limb damage (fingers, toes, arms, legs) that requires amputation

Can bacterial meningitis be treated?

• Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur. Appropriate antibiotic treatment of most common types of bacterial meningitis should reduce the risk of dying from meningitis to below 15%

- Vaccinations are available and should be considered for:

Those living in close quarters

College students 25 years old or younger

• Vaccinations are effective against 4 of the 5 most common bacterial types that cause 70% of the disease in the U.S. (but does not protect against ALL types of meningitis).

• Vaccinations take 7-10 days to become effective, with protection lasting 11 plus years.

- The cost of vaccine varies so check with your health care provider.
- Vaccination is very safe — most common side effects are redness and minor pain at injection site for up to two days.
- Vaccination with the Menactra vaccine (recommended) is available locally in Kerrville at Family Practice Associates—(830) 896-4711.

How can I find out more information?

- Contact your own health care provider.
- Contact the Health, Wellness & Counseling Center at 830-792-7279.
- Contact your local or regional Texas Department of Health office at 830-896-5515.

- Contact web sites:

www.cdc.gov/ncidod/dbmd/diseaseinfo

www.acha.org

FAQ—(continued from page 1)

9. Should I be vaccinated?

The Centers for Disease Control and Prevention's 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.

10. 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.

11. 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

12. How effective is vaccination?

The meningococcal vaccine provides against four of the five types of *N.*

meningitidis bacteria that cause meningococcal disease in the United States — types A, C, Y, and Y-135. In persons 15 to 24 years of age, 70 to 80 percent of cases are caused by potentially vaccine-preventable strains.

13. 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, and fatigue. These respond to simple measures (ibuprofen or acetaminophen) and resolve spontaneously within a few days.



“Knowledge is of no value unless you put it into practice.”

Anton Chekhov