

Meningococcal Disease

Meningococcal disease is a rare but potentially life-threatening bacterial infection that occasionally infects college students and others living in relatively isolated, confined communities.

Know what you can do to reduce your risk

- Give your immune system a chance: take care of yourself.
- Avoid contact with the respiratory secretions of others: don't share drinking and eating utensils, lip balms, etc.
- Consider vaccination: a safe, effective vaccine is available at Gannett.

What is meningococcal disease?

Meningococcal disease is caused by the bacteria *Neisseria meningitidis* and should not be confused with a viral infection that can cause viral meningitis. It most commonly is expressed as either meningococcal meningitis, an inflammation of the membranes surrounding the brain and spinal cord, or meningococemia, a presence of the same bacteria in the blood. The disease can result in permanent brain damage, hearing loss, learning disability, amputation, kidney failure, or death.

What is the incidence of meningococcal disease?

Meningococcal disease is rare, affecting about 3,000 Americans each year, leading to death in approximately 10-15 percent of cases. It is estimated that 100 to 125 cases of meningococcal disease occur annually on U.S. college campuses.

Since 1991, cases of meningococcal disease among 15-24 year olds have more than doubled. Recent evidence suggests that students living in residence halls appear to be at somewhat higher risk for meningococcal disease. Health officials believe they are susceptible because they live in close proximity with many other people and may be exposed to bacteria they have not previously encountered. Data also suggest 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.

How does it spread?

Meningococcal disease is transmitted through the air via droplets of respiratory secretions and direct contact with infected persons. Direct contact is defined as intimate contact such as kissing, sneezing or coughing on someone, or oral contact with shared items such as:

- drinking utensils (glass, cup, bottle, can, etc.)
- eating utensils
- cigarettes, cigars, pipes, etc.
- lipstick, lip balms

Most people who become infected simply carry the organism harmlessly, without illness, and eliminate it from the nose and throat within a short time by developing natural immunity. At any one time, up to 10% of the population may be found carrying the meningococcal bacteria without illness or symptoms.

Meningococcal bacteria cannot live for more than a few minutes outside the body. As a result, they are not easily transmitted by routine contact with an infected person in a classroom, dining room, restroom, etc.

Roommates, friends, partners, and children who have had direct contact with the oral secretions of a person diagnosed with meningococcal disease are at increased risk for contracting the disease and should receive prophylactic medication (such as ciprofloxacin).

What are the symptoms?

Understanding the characteristic signs and symptoms of meningococcal disease is critical and possibly lifesaving. Common early symptoms may include:

- fever
- severe headache, and neck stiffness
- sometimes with a rash or vomiting
- sometimes with lethargy confusion, or other change in consciousness.

If a flu-like illness takes a rapid turn for the worse and is accompanied by any of the symptoms listed above, a person should seek immediate medical assistance at Gannett or Cayuga Medical Center.

Can meningococcal disease be mistaken for something else?

Meningococcal disease is potentially dangerous because it is rare and, early in the illness, can be mistaken for other conditions. A person may have symptoms suggestive of a minor cold or flu for a few days before experiencing a rapid progression to severe meningococcal disease. When in doubt, seek medical evaluation and advice.

Caution

Anyone who becomes ill with mild, flu-like symptoms should watch for more severe symptoms such as fever, headache, vomiting, rash, or changes in mental status. If any of these symptoms develops, do not delay seeking medical attention.

Students: call Gannett (255-5155) during regular hours. After hours, call 255-5155 to consult with a Gannett health care provider; or go to the Cayuga Medical Center Emergency Room.

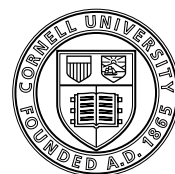
Employees: contact your physician or go to an emergency room.

How can one reduce the risk of contracting meningococcal disease?

- Maximize your body's own immune system response. A lifestyle that includes a balanced diet, adequate sleep, appropriate exercise, and reduction of stress is important. (Not realistic here at Cornell? Do your best! Even small improvements may help.)
- Avoid inhalation of cigarette smoke, excessive alcohol consumption, and, if possible, upper respiratory tract infections.
- Avoid exposure to oral secretions by not sharing things that have touched others' mouths (see list in previous column).
- Protect others by covering your nose and mouth when you cough or sneeze.
- Wash your hands frequently.
- Consider vaccination (see below).

Meningococcal vaccination

The American College Health Association and the Centers for Disease Control



and Prevention recommend that first year college students living in residence halls get vaccinated to reduce their risk of meningococcal disease. (First year college students who live in residence halls are at higher risk for meningococcal disease compared to other people of the same age.) All other students who wish to reduce their risk of infection should also consider vaccination.

In addition, New York State Public Health Law requires that all registered students receive information about meningococcal disease and vaccination and complete a form indicating that they have been vaccinated or choose not to be at this time.

New York State meningococcal requirement

New York State requires all entering students to verify by their signature that they have received information about meningococcal disease and have made an informed decision about whether or not to receive immunization against meningococcal disease.

For more information about meningococcal disease

Call the Tompkins County Health Department: 274-6604

New York State Department of Health Fact Sheet www.health.state.ny.us [search: "meningoccal fact sheet"]

American College Health Association Information: www.acha.org [search: "campus meningitis"]

U.S. Centers for Disease Control and Prevention (CDC) Fact Sheet: www.cdc.gov/vaccines [search: "meningitis fact sheet"]

Effectiveness of vaccine

The meningococcal vaccine is effective against four of the five subtypes of meningococcal disease. The vaccine-preventable subtypes account for about 70-80% of cases among in the college-age population.

Vaccine available at Gannett

Meningococcal vaccination is available at Gannett. Call 255-5155 to ask for more information about the vaccine or its cost, (\$105 as of 3/08) or to set up an appointment.

Because this vaccine is a "preventive" treatment, most health insurance plans, including the Student Health Insurance Plan, will not pay for it.

Possible side effects of the vaccine

- The meningococcal vaccine is considered relatively free of side effects.
- The adverse reactions are mild and infrequent, consisting primarily of redness and pain at the injection site that may last 1 to 2 days.
- About 2% of recipients may develop fever after vaccination. If you develop a high or persistent fever, please consult a physician.
- As with any vaccine, vaccination may not protect 100% of all susceptible individuals.

Do not receive the vaccine if

- You are pregnant or suspect you might be pregnant.
- You are allergic to thimerosal, a substance found in several vaccines.
- You have an acute illness, with fever (101 degrees F or higher).

Concerned about exposure?

Here's what you need to know if you are concerned about a possible exposure to someone who has been diagnosed with meningococcal disease:

- The Tompkins County Health Department works closely with the patient (when possible), friends, and family members to identify everyone who may have had very close contact with the patient.
- "Very close contact" means sharing the same drinking utensil (cup, glass, can, or jug), eating from the same piece of pizza or other foods, sharing the same eating utensil, sharing the same cigarette, sharing the same chapstick or lipstick, and kissing.
- Close contacts should be evaluated by a health care professional and treated as soon as possible with preventive or "prophylactic" antibiotics, such as ciprofloxacin ("cipro"). This is given in one dose.

- Even those close contacts who have had the meningococcal vaccine should take the preventive antibiotic. The vaccine provides an important measure of protection, but is effective against only four of the five subtypes of meningococcal disease. (The vaccine preventable subtypes account for 70 to 80% of cases among 18 to 23 year olds.)
- People who have been in the same room but have not had this kind of contact with the patient are not considered to be at elevated risk and would not need preventive antibiotic.
- People who have had "second hand contact" (i.e., have been in close contact with someone who has been in close contact with the patient) also are not considered to be at elevated risk.
- If you have any questions about your exposure risk or symptoms, or would like to discuss your concerns with a health care provider, please call us (27/7 at 255-5155). We are eager to help.

Fall and Spring Semester Hours:

Monday-Friday	8:30 am-5:00 pm
Saturday	10:00 am-4:00pm
Sunday	building closed

Check the web for hours during breaks, winter and summer sessions: www.gannett.cornell.edu

e-mail: gannett@cornell.edu

fax: 607-255-0269

Ho Plaza, Ithaca, NY 14853-3101