# Meningitis and Meningitis Vaccine Information

## What is meningococcal meningitis?

Meningococcal disease, which includes meningitis, is a serious bacterial infection that strikes between 1000 and 2600 Americans each year. Although rare, meningococcal disease can cause meningitis (swelling of the brain or spinal cord) or meningococcemia (blood infection). Vaccination against the strains known as A, C, Y, and W-135 is currently available. It is a safe and effective way to help protect against this potentially devastating disease.

## How does bacterial meningitis differ from viral meningitis?

Viral meningitis is generally less severe and resolves without specific treatment. However, bacterial meningitis can be severe and result in brain damage, hearing loss, kidney damage, or even death. Bacterial meningitis requires prompt medical diagnosis and treatment that may include antibiotics that are specific to the infecting bacteria and supportive care throughout the acute phase of the illness.

## Who is at greatest risk for getting meningococcal meningitis?

College students living in dormitories in their home country or overseas have been shown to be at increased risk of developing bacterial meningitis. Other high risk groups include infants, travelers to places where meningococcal disease is common (e.g., the Meningitis Belt of subSaharan Africa and Saudi Arabia), people with damaged or missing spleens, people with certain blood diseases, and those with compromised immunity. Other factors which may increase your risk for meningococcal meningitis include: recent viral infection, living in a crowded household, having an underlying chronic illness, exposure to cigarette smoke (either directly or second-hand smoke) and living in close communal situations as a military recruit or a student.

## How does meningococcal disease spread?

The disease is spread person-to-person through the exchange of respiratory and throat secretions (e.g., by coughing, kissing, or sharing eating utensils or cosmetics, drinking from the same glass). Meningococcal bacteria can't live for more than a few minutes outside the body, so the disease is not spread as easily as the common cold or influenza.

## What are symptoms of meningococcal meningitis?

Meningococcal meningitis can be hard to recognize, especially in its early stages, because symptoms are similar to those of many common viral illnesses. But unlike more common illnesses, the disease can progress quickly and could cause death within 24 hours. Symptoms may include the sudden onset of a high fever, severe headache, stiff neck, confusion, vomiting, exhaustion, sensitivity to light, and/or a rash. These symptoms can develop over several hours or a 1 to 2 day period.

## How soon might symptoms appear after exposure to an infected person?

The symptoms may appear 2 to 10 days after exposure, but usually within 5 days of exposure.

Prepared by T. Cooper, RN, BA for UofL Campus Health Services
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## *When and for how long is an infected person able to spread the disease?*

A person may transmit the disease from 3 days after he/she is infected until the bacteria is no longer present in discharges from the nose and mouth, which is generally about 10 days after developing symptoms.

## *How can you keep from developing meningococcal meningitis?*

Vaccination is safe and effective and the best way to help protect yourself or your student from meningococcal meningitis. 3 vaccines are currently available in the US for meningitis: Menactra, Menveo, and Menomune. These vaccines cover the A, C, Y, and W-135 strains. Unfortunately, a vaccine for the B strain of meningitis is not currently available, due to the B-strain's complexity and constantly mutating characteristics. Meningitis B currently accounts for 90% of the bacterial meningitis cases annually in the UK according to MeningitisUK.

## *Are booster doses needed following initial vaccination?*

Most children should have received their first dose of vaccine at ages 11 through 12 years and booster dose at age 16. A booster dose after age 16 is recommended if they have only received a single dose of vaccine prior to age 16. Young adults who are living in on-campus housing should get a booster dose if their previous dose was given before age 16 years.

## *How can I protect myself and others from meningococcal infection?*

In addition to the meningococcal vaccine, the best preventive measures are quite simple. Wash your hands with soap and water frequently for a full 15 seconds before rinsing. Carry and use hand sanitizer before eating and drinking. Cover your cough and sneeze by coughing into your sleeve or elbow. Throw away used tissues and wash your hands. Don't share lipstick or toothbrushes, cups, eating utensils, drinks, plates, etc.

## *Should I receive treatment if I have been in contact with a diagnosed case of meningitis?*

Only people who have been in close contact (household members, roommates, intimate contacts, healthcare personnel giving mouth to mouth resuscitation, etc.) need to be considered for preventive treatment. Casual contact that might occur in a classroom or office setting is rarely significant enough to transmit infection. If you have concerns, you should contact your healthcare provider immediately. If you are studying abroad, contact your on-site coordinator for assistance. When recommended, preventive treatment may include the need to take an oral antibiotic. If you receive the meningococcal vaccine after exposure, you will be protected from possible meningococcal infection in the future; however, the vaccine will not be protective for the present exposure.

## *For more information:*

Meningitis Vaccine --- www.cdc.gov/vaccines/vpd-vac/mening/default.htm
General information about meningitis --- www.cdc.gov/meningitis/index.html
Meningitis in the UK: http://www.meningitisuk.org/meningitis.htm

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