

## What is Meningococcal Disease?

Meningococcal disease is caused by the bacterium *Neisseria meningitidis*, also called meningococcus. About 10% of people have this type of bacteria in the back of their nose and throat with no signs or symptoms of disease, called being 'a carrier'. But sometimes *Neisseria meningitidis* bacteria can invade the body causing certain illnesses, which are known as meningococcal disease.

## How Can One Contract Meningococcal Disease?

*Neisseria meningitidis* bacteria are spread through the exchange of respiratory and throat secretions like spit (e.g., living in close quarters, kissing). Fortunately, these bacteria are not as contagious as what causes the common cold or the flu. Also, the bacteria are not spread by casual contact or by simply breathing the air where a person with meningococcal disease has been.

Sometimes *Neisseria meningitidis* bacteria spread to people who have had close or lengthy contact with a patient with meningococcal disease. People in the same household, roommates, or anyone with direct contact with a patient's oral secretions, meaning saliva or spit, (such as a boyfriend or girlfriend) would be considered at increased risk of getting the infection.

## Who is at a Higher Risk?

- Age
  - Meningococcal disease is more commonly diagnosed among infants, adolescents and young adults. A vaccine is available and recommended for all 11 through 18 year olds. A vaccine is also available for infants and children 9 months of age and older, but it is only routinely recommended for those with certain medical conditions. Learn more about certain age groups being at risk.
- Community setting
  - Infectious diseases tend to spread quickly wherever large groups of people gather together. As a result, college students living in dormitories are at slightly increased risk compared with other persons of the same age. A vaccine is available and recommended for all college freshmen living in a dorm. However, any college student can receive the vaccine to decrease their chances of getting meningococcal disease. Persons entering the military will receive a meningococcal vaccine before basic training. Learn more about those in community settings being at risk.
- Certain medical conditions
  - There are certain diseases, medications and surgical procedures that put people at increased risk of meningococcal disease, such as not having a spleen. A vaccine is available and recommended for those with these conditions. Learn more about those with certain medical conditions being at risk.

If you have any questions, please contact Allen County Public Health at 419-228-4457. Health Department staff members are available to answer your questions Monday to Friday from 8:00 a.m. to 4:30 p.m. You can also visit [www.allencountypublichealth.org](http://www.allencountypublichealth.org) and the Centers for Disease Control and Prevention's Web site at [www.emergency.cdc.gov](http://www.emergency.cdc.gov) for additional information.

- Travel
  - Travelers to the meningitis belt in sub-Saharan Africa may be at risk for meningococcal disease, particularly during the dry season. Learn more about travelers at risk.

## How Can You Prevent Contracting Meningococcal Disease?

### Prevention

**Keeping up to date with recommended immunizations is the best defense against meningococcal disease.** Maintaining healthy habits, like getting plenty of rest and not coming into close contact with people who are sick, can also help.

### Vaccination

There is a vaccine for the bacteria that causes meningococcal disease. However, available vaccines do not cover all serogroups (“strains”) of *Neisseria meningitidis* bacteria. Like with any vaccine, meningococcal vaccines are not 100% effective. This means that even if you have been vaccinated, there is still a chance you can develop a meningococcal infection. People should know the [symptoms](#) of meningococcal meningitis and meningococcal septicemia since early recognition and quick medical attention are extremely important.

### Antibiotics

Sometimes *Neisseria meningitidis* bacteria spread to other people who have had close or lengthy contact with a patient with meningococcal disease. People in the same household, roommates, or anyone with direct contact with a patient’s oral secretions (saliva) (such as a boyfriend or girlfriend) would be considered at increased risk of getting the infection. People who qualify as close contacts of a person with meningococcal disease should receive antibiotics to prevent them from getting the disease. This is known as prophylaxis.

### Infection

If your doctor confirms that you have meningococcal disease, your body will develop a natural defense (immunity) to some similar types of future infections. However, like with the vaccine, this protection does not last a lifetime and is not perfect. Therefore, routine meningococcal vaccines are still recommended. If you get meningococcal disease twice, it is highly possible that you have an underlying immune deficiency, which your doctor should evaluate.

## How Do You Diagnose and Treat Meningococcal Disease?

### Diagnosis

**Early diagnosis and treatment are very important.** If meningococcal disease is suspected, samples of blood or cerebrospinal fluid (near the spinal cord; see image below) are collected and sent to the laboratory for testing. It is important to know if it is meningococcal disease because the severity of illness and the treatment will change depending on the cause. In the case of meningococcal disease,

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antibiotics can help prevent severe illness and reduce the chances a close contact will also develop disease.

If *Neisseria meningitidis* bacteria are present, they can be grown (cultured). Growing the bacteria in the laboratory is important for confirming the presence of bacteria, identifying the specific type of bacteria that is causing the infection, and deciding which antibiotic will work best. Other tests can sometimes detect and identify the bacteria if the cultures do not.

### Treatment

Meningococcal disease can be treated with a number of effective antibiotics. **It is important that treatment be started as soon as possible.** If meningococcal disease is suspected, antibiotics are given right away. Antibiotic treatment should reduce the risk of dying, but sometimes the infection has caused too much damage to the body for antibiotics to prevent death or serious long-term problems.

Depending on how serious the infection is, other treatments may also be necessary. These can include such things as breathing support, medications to treat low blood pressure, and wound care for parts of the body with damaged skin.

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