

## ***MENINGOCOCCAL DISEASE (Spinal meningitis, meningococemia, Neisseria meningitidis)***

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### **What is meningococcal disease?**

Meningococcal disease is a bacterial infection with *Neisseria meningitidis*. This is one of many organisms which can infect the blood and the meninges (the tissues covering the brain and spinal cord). Blood infections caused by this bacteria without meningitis are called meningococemia. Most cases occur during the winter and spring.

Meningococcal disease is relatively rare.

### **Who gets meningococcal disease?**

Anyone can get meningococcal disease. However, it is more common in infants, children, and young adults. It is more often found in places where there are crowded living conditions.

### **How does the disease spread?**

Meningococcal disease spreads by contact with mucus or droplets from the nose and throat of an infected person (for example: by coughing, kissing, or sharing eating utensils). Many people carry the bacteria in their nose and throat without signs of illness, however, they may spread the disease to others. Meningococcal bacteria cannot survive 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 the symptoms?**

The most common symptoms include high fever, chills, lethargy, and a rash. If meningitis is present, the symptoms can also include intense headache, stiff neck, nausea, and vomiting. Changes in behavior such as confusion, sleepiness, and being hard to wake up are important symptoms. In infants, the only signs of meningitis may be irritability, tiredness, and poor feeding. Babies with meningitis usually run a fever, but this is not a reliable sign. Meningococemia, the blood infection, usually involves a fever and a rash. Anyone who has the symptoms listed above should be seen by a doctor immediately. Meningococcal disease can be deadly if not treated quickly.

### **How soon do symptoms appear?**

Symptoms may appear two to ten days after infection, but usually within three to four days.

### **How long is an infected person able to spread the disease?**

A person can spread the disease as long as the bacteria are present in the nose or throat. After treatment, the bacteria usually disappear within 24 hours.

### **Can a person get this disease again?**

Probably not, though there are several types of *N. meningitidis* and infection with one type doesn't provide immunity to other types. Even if a person has had *N. meningitidis*, that will not protect that person against other subtypes of the meningococcal bacterium.

### **What is the treatment for meningococcal disease?**

Antibiotics such as penicillin and ampicillin are used to treat meningococcal disease.

### **Should people who have been around a person infected with meningococcal disease be treated?**

Household members, day-care center playmates, and close friends of infected persons, or anyone who has saliva contact through kissing, sharing eating utensils, or drinking from the same glass, need to ask their doctor about antibiotics. People who have had casual contact such as occurs in a classroom, office, or factory setting usually do not need treatment.

### **Is there a vaccine to prevent meningococcal disease?**

There are two kinds of meningococcal vaccine in the U.S.:

- Meningococcal conjugate vaccine (MCV4) was licensed in 2005. The MCV4 vaccine is the preferred vaccine for people 2 through 55 years of age.
- Meningococcal polysaccharide vaccine (MPSV4) has been available since the 1970's. It may be used if MCV4 is not available, and is the only meningococcal vaccine licensed for people older than 55.

Both vaccines can prevent four types of meningococcal disease, including two of the three types most common in the U.S., and a type that causes epidemics in the U.S., and a type that causes epidemics in Africa. Meningococcal vaccines cannot prevent all types of the disease. But they do protect many people who might become sick if they didn't get the vaccine.

Both vaccines work well, and protect about 90% of people who get them. MCV4 is expected to give better, longer-lasting protection.

MCV4 should also be better at preventing the disease from spreading from person-to-person.

For more information about the meningococcal vaccine, contact your local health department or the Utah Department of Health, Bureau of Epidemiology at 801-538-6191.

### **Who should get the meningococcal vaccine?**

MCV4 vaccine is recommended for all children and teenagers, ages 11 through 18 years of age.

Vaccination is recommended for other people at increased risk of meningococcal disease, this includes:

- College freshmen living in dormitories.
- Individuals who have a damaged or missing spleen.
- People with persistent complement component deficiency (an immune system disorder).
- People working with meningococcus bacteria in laboratories.
- Travelers to certain countries in sub-Saharan Africa as well to other countries for which meningococcal vaccine is recommended (e.g., travel to Mecca, Saudi Arabia, for the annual Hajj).
- U.S. military recruits.
- Anyone who might have been exposed to meningitis during an outbreak.

The MCV4 vaccine should be used in people ages 2 through 55 years in any of the above risk groups. The MPSV4 vaccine can be used if someone has a permanent contraindication or precaution to the use of the MCV4 vaccine. The MPSV4 vaccine can be used if the MCV4 vaccine is not available and for adults over 55 years of age.

### **How many doses of meningococcal vaccine are needed?**

For most people, only one dose is needed of either the MCV4 vaccine or the MPSV4 vaccine. Sometimes a second dose is recommended for people who remain at high risk at. If you have questions about whether or not you should get the vaccine, ask your healthcare provider.

The MPSV4 vaccine may be recommended for children 3 months to 2 years of age under special circumstances. These children should get two doses, three months apart.

### **What can be done to stop the spread of meningococcal disease?**

Anyone with a cold or influenza-like symptoms should be careful to cover their mouths and noses with tissue when sneezing or coughing. During outbreaks in schools, day-cares, or in places such as barracks where there are crowded living conditions, pregnant women or people with chronic red blood cell disorders should ask their doctor for advice.

### **Where can I get more information?**

- Your personal doctor
- Your [Local Health Department](#), listed in the telephone directory
- The Utah Department of Health, Bureau of Epidemiology (801) 538-6191