



Central Michigan District Health Department

Promoting Healthy Families, Healthy Communities



Jennifer Morse, MD, MPH, FAAFP
Medical Director

Steve Hall, RS, MS
Health Officer

Bacterial Meningitis

What is Bacterial Meningitis?

When bacteria enter the bloodstream and travel to the brain and spinal cord, or when bacteria invade the meninges; bacterial meningitis can occur. Bacterial meningitis is very serious and can be deadly. Most people recover from meningitis. However permanent disabilities (such as brain damage, hearing loss, and learning disabilities) can result from the infection.

Common causes of bacterial meningitis vary by age group:

- Newborns: Group B Streptococcus, *S. pneumoniae*, *L. monocytogenes*, *E. coli*
- Babies and children: *S. pneumoniae*, *N. meningitidis*, *H. influenzae* type b (hib), group B Streptococcus
- Teens and young adults: *N. meningitidis*, *S. pneumoniae*
- Older adults: *S. pneumoniae*, *N. meningitidis*, Hib, group B Streptococcus, *L. monocytogenes*

How is it spread?

Generally, the germs that cause bacterial meningitis spread from one person to another. Certain germs, such as *L. monocytogenes*, can spread through food.

How people spread the germs often depends on the type of bacteria. It is also important to know that people can have these bacteria in or on their bodies without being sick. These people are “carriers.” Most carriers never become sick but can still spread the bacteria to others.

Here are some of the most common examples of how people spread each type of bacteria to each other:

- Group B Streptococcus and *E. coli*: Mothers can pass these bacteria to their babies during birth.
- Hib and *S. pneumoniae*: People spread these bacteria by sharing respiratory or throat secretions (saliva or spit). This typically occurs during close (coughing or kissing) or lengthy (living together) contact.
- *E. coli*: People can get these bacteria by eating food prepared by people who did not wash their hands well after using the toilet.

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What are the signs and symptoms?

Sudden onset of fever, headache, and stiff neck. Often, other symptoms follow, including nausea, vomiting, photophobia (eyes being more sensitive to light) and altered mental status (confusion).

Newborns and babies may not have the classic symptoms as listed above. Instead, babies may be slow or inactive, be irritable, vomit or feed poorly.

Symptoms of bacterial meningitis can appear quickly or over several days. Typically, they develop within 3 to 7 days after exposure.

What is the treatment for Bacterial Meningitis?

Bacterial meningitis can be treated with a number of effective antibiotics. It is important that treatment be started early in the course of the disease. People in close contact with a case may need antibiotics also.

Who is considered to be close contacts to a case?

- Persons who live in the same house
- Persons who have contact with mouth or nose secretions, such as through kissing, sharing eating utensils or sharing cigarettes
- Persons who have done medical treatments such as mouth-to-mouth resuscitation or intubation
- Children sharing toys, such as in childcare centers, family childcare homes, or nursery schools

How can I guard against the spread of this disease?

Vaccines are available to prevent the most common types of meningococcal disease. These vaccines are recommended for:

- All children at their routine preadolescent visit (11-12 years of age)
- High school students
- College freshman
- Persons routinely exposed to meningococcal bacteria (microbiologists)
- U.S. military recruits
- Anyone traveling to, or living in, a part of the world where meningococcal disease is common
- Anyone who has a damaged spleen, or whose spleen has been removed
- Anyone with an immune system disorder
- People who might have been exposed to meningitis during an outbreak