Meningitis: What You Should Know

Meningitis is a swelling of the protective membranes covering the brain and spinal cord, also known as the meninges. This inflammation is often caused by an infection of the fluid surrounding the brain and spinal cord. Meningitis is usually caused by a bacteria or a virus. It is important to know the specific cause of meningitis because the treatment differs depending on the cause.

Bacterial meningitis

Bacterial meningitis is very serious and can be deadly. Death can occur in as little as a few hours. While most people with meningitis recover, permanent disabilities such as brain damage, hearing loss, and learning disabilities can result from the infection.

There are several types of bacteria that can cause meningitis. Some of the leading causes of bacterial meningitis include *Streptococcus pneumoniae*, group B *Streptococcus*, *Neisseria meningitidis*, *Haemophilus influenzae*, and *Listeria monocytogenes*.

Risk Factors

Certain people are at increased risk for bacterial meningitis. Some risk factors include:

- **Age:** Babies are at increased risk for bacterial meningitis compared to people in other age groups. However, people of any age can develop bacterial meningitis.

- **Community setting:** Infectious diseases tend to spread where large groups of people gather. Outbreaks of meningococcal disease, caused by *N. meningitidis*, have been reported from college campuses.

- **Occupation:** Microbiologists routinely exposed to meningitis-causing bacteria are at increased risk for meningitis.

New Vaccine Requirements

Effective September 2016
All 7th and 12th graders are now required to have the Meningitis Vaccine MCV4 to be able to attend school.

A separate vaccination, referred to as Men B, is recommended for adolescents and young adults.

Important Links and Contacts

Monroe County Health Department Immunization Clinic
585-753-5150
immclinic@monroecounty.gov

Centers for Disease Control
www.cdc.gov/vaccines
How Bacterial Meningitis Spreads

The germs that cause bacterial meningitis are spread from person to person. Some bacteria can spread by exchanging respiratory and throat secretions or lengthy contact, especially if living in the same household. The bacteria are not spread by casual contact or by simply breathing the air where a person with bacterial meningitis has been.

Sometimes, the bacteria that cause meningitis are spread to other people who had close or lengthy contact with a patient with bacterial meningitis. People who are close contacts of a person with meningococcal or Haemophilus influenzae type b (Hib) meningitis are at increased risk of getting infected and may need preventive antibiotics.

Healthy people can carry the bacteria that cause meningitis in their nose or throat with no signs or symptoms of disease; this is called being “a carrier.” Sometimes, these bacteria can invade the body and cause disease. Most people who “carry” the bacteria never become sick.

Signs and Symptoms

Meningitis symptoms include sudden onset of fever, headache, and stiff neck. There are often additional symptoms, such as

- Nausea
- Vomiting
- Photophobia (increased sensitivity to light)
- Altered mental status (confusion)

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

In newborns and babies, the classic meningitis symptoms of fever, headache, and neck stiffness may be absent or difficult to notice. The baby may appear to be slow or inactive, irritable, vomiting, or feeding poorly. In young babies, doctors may also look for a bulging fontanelle (soft spot on infant’s head) or abnormal reflexes, which can also be signs of meningitis.

Diagnosis

If meningitis is suspected, samples of blood or cerebrospinal fluid (fluid near the spinal cord) are collected and sent to the laboratory for testing.

Treatment

Bacterial meningitis can be treated with a number of antibiotics. *It is important that treatment be started as soon as possible.*

Prevention

The most effective way to protect you and your child against certain types of bacterial meningitis is to make sure your child is fully immunized. Good hand-washing and avoiding sharing cups and food, as well as staying away from sick individuals are all good ways to prevent possible exposure.
**Viral meningitis**
Viral meningitis is the most common type of meningitis. It is often less severe than bacterial meningitis, and most people get better on their own (without treatment). Non-polio enteroviruses are the most common cause of viral meningitis, especially from late spring to fall when these viruses spread most often. However, only a small number of people who get infected with enteroviruses will actually develop meningitis.

**Signs and Symptoms**
- Fever
- Headache
- Stiff neck
- Sensitivity to bright light
- Sleepiness or trouble waking up from sleep
- Nausea
- Vomiting
- Lack of appetite
- Lethargy (a lack of energy)

Most people with viral meningitis usually get better on their own within 7 to 10 days.

**Diagnosis**
Meningitis can only be diagnosed by doing specific lab tests on specimens from a person suspected of having meningitis. If your doctor thinks you might have meningitis, he or she may collect samples for testing by
- swabbing your nose and/or throat.
- swabbing your rectum.
- taking some blood.
- taking fluid from around your spinal cord.

**Treatment**
In most cases, there is no specific treatment for viral meningitis. Most people who get viral meningitis completely recover on their own within 7 to 10 days. However, people with meningitis caused by certain viruses such as herpes virus and influenza, will usually need and get better from treatment such as an antiviral medicine.

Antibiotics do not help viral infections, so they are not useful in the treatment of viral meningitis. People who develop severe illness, or at risk for developing severe illness, such as babies, and people with weakened immune systems may need to be hospitalized.