

frequently asked questions

WHAT IS MENINGITIS?

Meningitis is a serious, sometimes fatal infection causing inflammation of the membranes that protect the brain and spinal cord (meninges).

WHAT CAUSES MENINGITIS?

Most cases of meningitis are caused by infections from viruses or bacteria. A small portion of cases may be caused by fungi, reactions to medication or medical conditions associated with inflammation such as lupus, sarcoidosis or malignancy.

Viral meningitis, the most common type of meningitis, is typically less life-threatening than bacterial meningitis. Nonetheless, it can lead to hospitalization and prolonged absence from school or work. Researchers estimate that approximately 75,000 cases of viral meningitis occur in the U.S. annually.

Bacterial meningitis is a serious illness requiring immediate medical attention. There are approximately 5,800 cases of bacterial meningitis in the U.S. every year.

WHAT ARE THE SIGNS AND SYMPTOMS OF MENINGITIS?

Fever, headache, and stiff neck are all common symptoms of meningitis. These may be accompanied by photophobia (dislike of bright light), nausea, vomiting and drowsiness. With young babies and infants watch for loss of appetite, a dislike of being handled, a blank stare, difficulty waking, a pale or blotchy complexion and high-pitched cry, moan or scream. The soft spot on a baby's head (fontanelle) may bulge, because the fluid that surrounds the lining of the brain becomes inflamed increasing the pressure inside the head.

Symptoms develop rapidly in bacterial meningitis, sometimes over a few hours, and are followed by drowsiness and occasionally loss of consciousness. Symptoms are often accompanied by a deep red or purplish rash in severe cases, which can be a sign of "blood poisoning" known as sepsis. If sepsis is detected, immediate medical attention should be sought. Symptoms for severe viral meningitis are similar to bacterial and can be followed by headaches, tiredness, and depression.

WHAT ARE THE MOST COMMON TYPES OF BACTERIAL OF MENINGITIS IN THE U.S.?

Streptococcus pneumonia (known as pneumococcus) and *Neisseria meningitidis* (known as menengococcus) are the most common types of bacterial meningitis in the U.S.

Nearly 1 of every 5 cases of pneumococcal meningitis is fatal. Meningococcal meningitis occurs in approximately 25% of all meningitis cases and 3% of victims die. The fatality rate increases to 15% in meningococcal disease, which is when sepsis occurs.

Prior to 1990, *Haemophilus influenza* type b (Hib) was the leading cause of bacterial meningitis in the U.S. However, new vaccines given to children as part of their routine immunizations have decreased Hib disease by 94%.

IS MENINGITIS CONTAGIOUS?

It can be, as the bacteria and viruses that cause meningitis are spread by means such as coughing, sneezing and kissing. However, neither the bacteria nor viruses that cause meningitis can survive for long outside the human body, which means that they are not spread by casual contact or by simply breathing the air where a person with meningitis has been.

CAN ANYONE CONTRACT MENINGITIS?

Yes. Meningitis can affect people of any age, but young children are more susceptible to bacterial meningitis than any other group. Those with medical conditions that result in a suppressed immune system are even more susceptible. People who live or spend a good deal of their time in group settings may be at increased risk for infection, such as children who attend day care, college students living in dormitories or elderly persons who live in nursing homes or other long-term care facilities.

HOW IS MENINGITIS DIAGNOSED?

The early diagnosis and treatment of meningitis is extremely important. Any patient exhibiting symptoms of meningitis should seek immediate medical attention. Lumbar puncture (spinal tap) is the only definitive way to diagnose meningitis.

CAN BACTERIAL MENINGITIS BE TREATED?

Bacterial meningitis can be treated with antibiotics; however, it's crucial that treatment is started as early as possible. Appropriate antibiotic treatment can help reduce the likelihood of death and other serious consequences.

During the last decade, effective antibiotic treatment has been complicated by the emergence of *S. pneumonia* strains that are resistant to penicillin and other antibiotics commonly used to treat meningitis.

CAN VIRAL MENINGITIS BE TREATED?

There are antiviral agents now available to treat some types of viral meningitis, such as those infections caused by herpes. There are newer agents under development, but general treatment involves supportive care, such as medication given to help manage symptoms

WHAT ARE THE CONSEQUENCES OF BACTERIAL MENINGITIS?

About 20% of pneumococcal and 3% of meningococcal meningitis cases end in death. Approximately 16% of all bacterial meningitis cases experience lasting after effects, the most frequent of which are deafness, brain damage, spasticity and or paresis (partial paralysis), and seizure disorders.

Bacterial meningitis is the leading cause of acquired deafness in infancy and childhood. Children infected with pneumococcal meningitis are twice as likely to experience hearing loss (23.8% compared with 11.9%) as children infected with all other types of bacterial meningitis.

Septicemia (sepsis) is a potential consequence from meningococcal meningitis. Sepsis is bleeding directly underneath the skin's surface. It starts as a pinpoint rash in the extremities (toes & fingers), then expands to multiple areas of the body if untreated. In severe cases of sepsis, measures up to and including amputation occur.

CAN MENINGITIS BE PREVENTED?

Even though there are not currently any vaccines or other means to safeguard against viral meningitis, several vaccines are available to protect from some types of bacterial meningitis. According to the Centers for Disease Control and Prevention (CDC), in 2002, Prevnar prevented 12,700 U.S. cases of invasive pneumococcal diseases, such as meningitis, for children younger than 5.

Bacteria	Vaccine	Age Group
Hib	ActHIB/OmniHIB®*	Infants/Children
	HibTITER®*	Infants/Children
	PedvaxHIB/Comvax®*	Infants/Children
Meningococcal	Menomune®*	Adults
Pneumococcal	Pneumovax®*	Adults
	Prevnar®*	Infants/Children

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MY CHILD'S CLASSMATE HAS CONTRACTED BACTERIAL MENINGITIS. SHOULD MY CHILD RECEIVE ANTIBIOTICS?

Maybe; when a case of meningitis is diagnosed, a public health physician/professional should ensure that all those who need antibiotics, either in a school or wider community, are contacted.

meningitis symptoms in adults



headache



vomiting



drowsiness



seizures



high temperature



joint aching, joint pain



stiff neck



dislike of light

meningitis symptoms in children



a high-pitch moaning cry, whimpering



dislike of being handled, fussy



arching back, neck retraction



blank staring expression



difficult to wake up, very lethargic



fever or may have cold hands & feet



refusing feeds or vomiting



pale, blotchy skin color

IF YOU THINK IT MIGHT BE MENINGITIS

- Contact your medical doctor immediately. Explain why you are concerned.

- Describe the symptoms carefully. Ask for advice.

- If your MD is not available, go straight to the nearest emergency room.

- Be prepared to insist. If it is bacterial meningitis, early treatment with antibiotics is vital to increase the chance that the person will survive and/or make a full recovery.



Meningitis Foundation of America



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meningitis affects more than 80,000
children and adults each year



creating public and medical **awareness**

supporting sufferers of meningitis
and their families



supporting **research** for
preventive vaccines and treatments

The Meningitis Foundation of America is a non-profit, volunteer-based organization founded in 1997 to increase awareness of meningitis and meningitis-related issues. The Foundation is dedicated to supporting sufferers of meningitis and their families.

The MFA believes that the early diagnosis and proper treatment of meningitis will save lives. The MFA provides information to the public and medical professionals in order to educate them about the dangers of meningitis.

The MFA actively supports the development of vaccines and other means of treating and preventing meningitis through lobbying efforts, letter-writing campaigns, media interviews and other advocacy activities.

Funding for the Foundation is provided through donations by the general public, corporate matching funds, and by unrestricted educational grants. If you wish to make a memorial donation to the Foundation, please include the name of the deceased, and the name and address of the next of kin. Please make checks payable to the Meningitis Foundation of America or MFA.

The Foundation may be contacted at:

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