

**WHO SHOULD GET VACCINATED?**

Vaccinations are recommended by the U.S. Centers for Disease Control and Preventions (CDC) and a number of major health care organizations for children 11-12 years of age, adolescents at high school entry (15 years of age) and newly enrolled college students living in dormitories along with other congregate living situations (such as fraternities and sororities). Military recruits and other high-risk groups include anyone with a damaged spleen, those traveling to countries where meningococcal disease is very common and people who may have been exposed to meningococcal disease during an outbreak. Children and adults with terminal complement component deficiency (an inherent immune disorder) should also receive the vaccine. Many states have passed new legislation mandating the vaccine. For more information about your state mandate, please visit [www.immunize.org](http://www.immunize.org).

**WHAT SHOULD I EXPECT AFTER MENINGITIS?**

Meningitis can be followed by a variety of after effects. Some of these effects are permanent and can cause physical disabilities and other less obvious emotional disabilities. Sufferers of viral and bacterial meningitis will experience after effects very differently. Meningitis is a serious that requires time for recovery even after treatment is complete. Some people will make a challenge-free recovery. Many people will make a fast recovery, while others will need a lot of support and care for a long time. It is impossible to predict which or if all of the after effects anyone may experience. The most common after effects of meningitis are emotional and can have a dramatic effect on everyone's life. During meningitis, some people can develop septicemia (blood poisoning) and in extreme cases may require skin grafts, amputation of limbs, fingers and toes. A septicemia rash can also leave scarring on the skin.

**AFTER EFFECTS IN CHILDREN CAN BE:**

|  |                                |
|--|--------------------------------|
| Extra Clingy                           | Bed Wetting                    |
| Temper Tantrums                        | Nightmares                     |
| Forgetting Learned Skills              | Sleep Walking                  |
| <b>AFTER EFFECTS IN ADULTS MAY BE:</b> |                                |
| General tiredness                      | Bouts of Aggression            |
| Headaches                              | Mood Swings                    |
| Difficulty Concentrating               | Learning Difficulties          |
| Short term Memory Loss                 | Deafness                       |
| Clumsiness                             | Tinnitus (ringing in the ears) |
| Giddiness                              | Eyesight Problems              |
| Difficulty w/ Balance                  | Epilepsy                       |
| Depression and or Anxiety              | Brain Damage                   |

**CAN I GET MENINGITIS AGAIN?**

Yes, however it is unusual for anyone to get meningitis more than once.

**THE MENINGITIS FOUNDATION OF AMERICA**



**DELTA TAU DELTA**

Alex Flatley was born on August 7, 1992 in the Garden State of New Jersey. His family moved after 7 years to the Bay Area. Alex always felt since he was a child that he had a connection to film. Alex wanted to grow up and make inspiring movies that show underdog stories and give audiences hope. Alex was stopped by viral meningitis at the age of 20. In the summer of 2013, meningitis and a coma put a halt to that dream. Alex had to be out of circulation for over 3 months. The most severe after effect has been memory loss and his loss of smell. Alex is now attending the University of Arizona in Tucson, and is a member of the Delta Tau Delta Fraternity. Since 1858, the Fraternity has spread to nearly 200 campuses, with more than 130 active Chapters and colonies comprised of roughly 8,000 students. More than 165,000 men have joined the brotherhood of Delta Tau Delta since its founding. Alex and his fraternity brothers have created a goal to raise awareness for meningitis and to make meningitis a known disease so that when a patient is presented in the E.R. meningitis is a considered diagnosis and people are not sent home due to flu-like symptoms. Alex is lucky. He survived.



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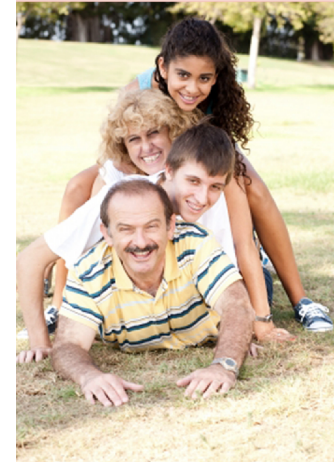
*The Meningitis Foundation of America, Inc. is a registered 501(c)(3). Meningitis Foundation of America is a proud member of the Confederation of Meningitis Organization (CoMO).*



Meningitis Foundation of America Inc.

[www.MUSA.org](http://www.MUSA.org)

**Educating, Vaccinating and Eradicating since 1997**





### **What Is Meningitis?**

Meningitis is a serious, sometimes fatal infection causing inflammation of the membranes (meninges) that protect the brain and spinal cord. Meningitis is caused by a bacterial or viral infection. Bacterial meningitis is quite severe and may result in brain damage, hearing loss, learning disabilities or death. Viral meningitis can be less severe and is rarely fatal but is often associated with long term after effects. Viral meningitis however is more common than bacterial meningitis. It is important to know which type of bacteria is causing the meningitis as antibiotics will be determined based on the type of bacteria. The appropriate antibiotics will prevent some types of meningitis from spreading and infecting other people.

### **How Do You Get Meningitis?**

Anyone can get meningitis, but infants and children are more susceptible to bacterial meningitis than any other group. People who live or spend a good amount of time in group settings such as daycare facilities, college dorms, nursing homes, long term care facilities or parts of the world where meningitis is prevalent (the Meningitis Belt) maybe at increased risk for infection. The bacterium that causes meningitis is very common and lives naturally in the back of the nose and throat. It is normally spread between people in close and prolonged contact by coughing, sneezing and intimate kissing. The bacterium does not live very long outside of the body and therefore can't be contracted from water supplies, swimming pools or buildings. People can be carriers of the bacteria allowing them to be immune to meningitis then those who are not carriers.

### **SIGNS AND SYMPTOMS:**

#### **How To Tell If Someone Has Meningitis?**

Symptoms can develop rapidly, sometimes over the course of a few hours. Symptoms may not always be easy to identify at first, because they closely resemble the flu. Symptoms may develop over 1 or 2 days, but typically will develop within hours. The incubation period is between 2-10 days. Symptoms don't appear in any particular order or at all. It is not uncommon for atypical symptoms to occur as everybody doesn't react the same way to an illness.



### **Symptoms In Infants And Children Are:**

|                    |                           |
|--------------------|---------------------------|
| High Temps, Fevers | Vomiting Lack of Appetite |
| Dislike Being Held | High Pitched Cry          |
| Pale Skin Color    | Blank Expression          |
| Lethargic          | Arching Back              |

### **Symptoms in teens and adults can be:**

|                    |                      |
|--------------------|----------------------|
| High Temps, Fevers | Vomiting             |
| Severe Headache    | Stiff Neck           |
| Light Sensitivity  | Confused/Disoriented |

### **What Should I Do?**

Meningitis infection is characterized by a sudden onset of fever, headache, and stiff neck. If someone you know is ill and you suspect meningitis get to an emergency room immediately. If it is meningitis, then urgent treatment is critical.

### **How Serious Is Meningitis?**

If diagnosed early and treated properly, most people can make a full recovery. However, in some cases meningitis can be fatal or lead to permanent disabilities such as brain damage and deafness.

### **Is Meningitis Contagious?**

Bacterial meningitis by Neisseria meningitidis (meningococcal meningitis) or Haemophilus Influenza (hib meningitis) is contagious. The bacteria can mainly spread from person to person through the exchange of respiratory and throat secretions such as coughing, sneezing, kissing, or sharing of personal items like utensils, cigarettes and drinking glasses. Entero viruses are the most common cause of viral meningitis and are most often spread through the direct contact with an infected person's fecal matter. The virus is spread via this route mainly among small children who are not yet toilet trained. Entero viruses are also spread through direct or indirect contact with respiratory secretions such as saliva, sputum or nasal mucus of an infected person.

### **Is There a Vaccine For Meningitis?**

There are several vaccines that can help prevent the cause of meningitis. The most effective way to protect you and your child against certain types of bacterial meningitis is to complete the recommended vaccine schedule. There are vaccines for the 3 types of bacteria that can cause meningitis: Neisseria meningitidis (meningococcus), Streptococcus pneumonia (pneumococcus), and Haemophilus influenzae type b (Hib). The vaccinations are safe and mild with infrequent side effects, such as temporary minimal redness and swelling at the injection site. As with any vaccine, vaccination against meningitis may not protect all susceptible individuals.

**For further vaccination information, please visit the CDC website:  
[www.cdc.gov/meningitis](http://www.cdc.gov/meningitis)**

### **How Can I Prevent Meningitis?**

Make sure you and your child are vaccinated. Vaccinations included in the childhood vaccination schedule can protect children against some diseases that can lead to viral meningitis. These include vaccines against measles and mumps (MMR vaccine) and chickenpox (varicella-zoster vaccine). Good hygiene is also important way to prevent most infections. Wash your hands thoroughly and often, especially after changing diapers, using the toilet, or coughing or blowing your nose. Clean contaminated surfaces, such as doorknobs or the TV remote control with soap and water and then disinfect them with a diluted solution of chlorine-containing bleach. Avoid kissing or sharing a drinking glass, eating utensil, lipstick, or other such items with sick people or with others when you are sick. Avoid bites from mosquitoes and other insects that carry diseases that can infect humans.

### **How Is Meningitis Diagnosed?**

If meningitis is suspected, samples of blood or cerebrospinal fluid (near the spinal cord) are collected and sent to the laboratory for testing. It is important to know the specific cause of meningitis because that helps doctors understand how to treat the disease, and possibly how bad it will get. In the case of bacterial meningitis, antibiotics can help prevent severe illness and reduce the spread of infection from person to person. If bacteria are present, they can often 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 find and identify the bacteria if the cultures do not.

### **Treatment And Prevention**

Bacterial meningitis can be treated effectively with antibiotics. It is important that treatment be started as soon as possible. Appropriate antibiotic treatment of the most common types of bacterial meningitis should reduce the risk of dying from meningitis to below 15%, although the risk remains higher among young infants and the elderly. There is no specific treatment for viral meningitis. Antibiotics do not help viral infections, so they are not useful in the treatment of viral meningitis. Most patients completely recover on their own within 7 to 10 days. A hospital stay may be necessary in more severe cases or for people with weak immune systems. However, antiviral medication will be administered to address the Entero viruses that caused the viral meningitis infection.

### **Picture of Meningitis Virus**

