

Let's Talk About...

Meningitis

Meningitis (men-in-JITE-es) is an infection of the tissue layer (meninges) around the brain and spinal cord. Usually either a virus or bacteria cause meningitis. Meningitis from a virus (viral meningitis) is more common in the summer. Meningitis from bacteria (bacterial meningitis) is more common during the winter. However, both can occur year-round. Fungus is a rare cause of meningitis (fungal meningitis); and primarily occurs in persons with a weak immune system.

What are the symptoms of meningitis?

Meningitis looks different depending on the child's age and the cause of the infection (bacteria, virus, or a fungus). The child can have a fever, be tired, vomit, and be irritable. Older children may have a headache, sensitivity to light, and a stiff neck. In younger children, symptoms are less distinctive but may include being extremely irritable or not responding.

It can be hard to tell when a young infant has a serious illness like meningitis. If your infant is younger than 3 months old and has a fever they should be seen by a healthcare provider so that tests can be done to help tell the difference between minor illnesses or something more serious. Other signs of meningitis in babies include being very irritable or sleepy, not responding to you or being very difficult to wake up. If you think your child is ill, it is better to call your healthcare provider early and be wrong than wait and be too late.

How does the doctor look for meningitis?

At the hospital, your healthcare provider will take a sample of blood and spinal fluid. The laboratory will

do a number of tests to see if there is an infection and to find out what type of infection your child might have. Spinal fluid is the liquid around the brain and spinal cord. Your child will have a lumbar puncture (spinal tap), to get a little spinal fluid for testing. The healthcare provider will put a small needle between the bones of the spinal column into the spinal fluid space in the low back, below where the spinal cord ends. A nurse will hold your child in a position curled up like a ball. This is a safe procedure, but it can be uncomfortable. The pain is similar to an IV poke. Missing the diagnosis of meningitis can be very dangerous and there is no other good way to diagnose meningitis without a lumbar puncture.

How do you treat meningitis?

If your healthcare provider thinks your child has meningitis, she will start antibiotics through an IV after the spinal tap. Antibiotics are important for the treatment of bacterial meningitis. This is the most serious type of meningitis. One type of viral infection caused by the herpes virus is also very serious and there is a medication that treats it. In some situations, your doctor will also start a medication for herpes infection. Your child's nurse will give these medicines through an intravenous (IV) line. The laboratory tests will help determine if there is meningitis and what type it is. This test can take over 24 to 48 hours. Based on this information, your healthcare provider may change or stop some or all the medicines. Your child will be in Droplet Isolation Precautions for the first 24 hours after the antibiotics start. Isolation lowers the chance that healthcare workers, family and friends will be exposed to the infection. If your child has specific types of meningitis, people who had prolonged contact with your child while they are contagious may also have to take antibiotics to reduce

the chance they will get meningitis. This is not necessary for most types of meningitis.

If your child has bacterial meningitis, he will receive antibiotics for 14 to 21 days or longer. How long your child receives the antibiotic medicine depends on several things, including the type of bacteria. Usually, children can have a special IV, called a PICC (peripheral indwelling central catheter). This lets your child receive the last part of the antibiotic treatment at home. Your doctor may need to re-test more spinal fluid during and after the treatment to make sure the antibiotics worked. This means your child would have more spinal taps.

If your child has viral meningitis, your healthcare provider will stop the antibiotics because they are only effective against bacteria and not viruses. Your healthcare provider might start an antiviral drug to treat certain types of viruses. Most of the time with viral meningitis your child will not need medicine and the illness is simply allowed to run its course. In that case, supportive treatments can help improve symptoms of meningitis, such as pain from headache, vomiting, and fever.

What will happen at the hospital?

Skilled nurses will give your child constant attention. If your child is very sick, he may need fluids from an IV and feedings through a tube from the nose to the stomach (NG tube) to provide fluid and nutrition. Many children with meningitis are sensitive to light and noise. You may notice that nurses reduce the amount of light and noise around your child. Your child will be monitored very closely and may spend some time in the intensive care unit.

What happens to a child with meningitis?

Most children with meningitis recover completely. The chances for complete recovery are better if treatment is started early. In some cases, children

develop complications. These can include collections of infected fluid in the head, hearing loss, learning problems, or other neurologic problems. If complications are suspected, your child may need to have special tests such as an MRI or CT scan. Your doctor will tell you about these tests if they are needed. Children with bacterial meningitis will usually have a hearing test before or shortly after going home. Some complications may not show up for weeks or months. If you have questions about complications please talk to your doctor.

How can meningitis be prevented?

One of the routine childhood vaccines (the HiB vaccine) protects against a bacteria that used to be the most important cause of bacterial meningitis. This vaccine has virtually eliminated HiB meningitis among children who get the vaccine. However, children who do not get this vaccine may still get HIB meningitis.

Another routine vaccine for young children, the pneumococcal vaccine (Prevnar) protects against many but not all types of pneumococcal meningitis, another important cause of bacterial meningitis.

HIB and pneumococcal vaccines are part of the routine childhood immunization schedule.

The HIB and pneumococcus vaccines are given two, four, and six months of age with a booster vaccine at 12 to 15 months of age, and another vaccine before starting school.

The meningococcal vaccine is also recommended for certain children at increased risk of meningitis from ages 2 months through 10 years. All adolescents should receive this vaccine at age 11–12 years with a booster at age 16. Meningococcal vaccination is required to attend many colleges. The Advisory Committee on Immunization Practices (ACIP) suggests that your child receive the vaccine less than 5 years before starting college or joining the military.