

FACTSHEET

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Meningitis

The brain and spinal cord are surrounded by a lining called the meninges. Infection or inflammation of the meninges is called meningitis. There is normally a fluid between the meninges and the brain or spinal cord called cerebrospinal fluid (CSF). In meningitis, the CSF becomes infected.

Causes of meningitis

Meningitis is due to infection with either viruses or bacteria. Much rarer causes include fungi or malignant (cancer) cells. In general, meningitis due to bacteria (bacterial meningitis) is more severe than meningitis caused by viruses (viral meningitis). Most children with viral meningitis recover completely. Some children with meningitis may have long-term problems, but this depends on the cause of the infection and the age of the child.

The common symptoms of meningitis in infants and young children may be very non-specific. Older children may be able to complain of more specific symptoms like headache or that the light hurts their eyes.

Common symptoms are:

- High fever
- Irritability
- Lethargy and drowsiness
- Vomiting and loss of appetite
- Headache.

Other symptoms may include:

- In young babies, the soft spot (fontanelle) may bulge
- A rash (either dots or bruises)
- Fits (seizures)
- Stiff neck
- Complaining that the light hurts their eyes (photophobia)
- Confusion
- Change in breathing pattern (fast or slow)
- Difficulty walking or calf pain.

Bacterial meningitis

The two most common bacteria that cause meningitis in children are the meningococcus and the pneumococcus (see also the Meningococcal and Pneumococcal infection fact sheets). All these bacteria live in the nose or throat, and can enter the bloodstream and then infect the meninges on rare occasions. There are vaccines against meningococcus and pneumococcus which reduce the risk of infection by these bacteria. (See the immunisation tables of the Immunisation fact sheet).

Meningococcal meningitis can be passed on (transmitted) to other children, although this needs close contact and is not common. Antibiotics may be given to family and close friends to prevent it spreading. Pneumococcal meningitis is hardly ever transmitted to others. It is important to monitor children who have had bacterial meningitis for long-term problems, especially with hearing. Children who appear normal at hospital discharge after bacterial meningitis rarely have later

problems identified and many of the early problems improve over time. It is important to have hearing tests and to attend follow-up with your paediatrician.

Viral meningitis

Viral meningitis is usually much less severe than bacterial meningitis, except in cases where the virus has also caused inflammation of the brain (encephalitis) as well as meningitis. Diseases which can cause viral meningitis or encephalitis include mumps, measles and polio. These can all be prevented with immunization. Since measles and mumps became rare as a result of immunisation, enteroviruses are now the most common viruses causing meningitis. Enteroviruses can be in respiratory secretions or faeces and enter the mouth via contaminated hands, food or drink. Hand washing can reduce the spread of these viruses.

Lumbar puncture

The fluid surrounding the spinal cord, known as CSF can be sampled to see if it is infected by using a needle which is put into the back. This is called a lumbar puncture (see Lumbar puncture fact sheet). The needle is inserted between two bones in the spine (the vertebrae) and into the CSF. The needle does not go into the spinal cord. The CSF from the back is just like the CSF around the brain and gives you the same information when tested.

Prevention

Many causes of meningitis can be prevented by immunisation. Please talk to your GP or local health service for information (see Immunisation fact sheet).

Treatment

If you are worried your child may have meningitis, you must take your child to your local doctor or hospital immediately.

Bacterial meningitis can be treated with antibiotics while viral meningitis may require very little treatment. The way a child is affected by the illness is different for each child.

Remember:

- Most children with meningitis recover completely.
- If your child has had bacterial meningitis, follow-up with your doctor is important.
- Make sure your child is up-to-date with their immunisations. Check with your GP.