

## MENINGITIS - FACTS

Meningitis means inflammation of the meninges. The meninges are the membranes surrounding the brain and the spinal cord. These membranes form a fluid filled sack in which the brain and spinal cord are suspended. Meningitis may be caused by bacteria or viruses or may occur when no microorganism is found. This problem can afflict anyone at any age but children and young adults are the ones at greatest risk.

Viral Meningitis is the most common and least dangerous. There are no vaccines to prevent this type of meningitis and no real impetus to develop one as it is only rarely fatal.

Bacterial Meningitis can be caused by several different bacteria but the most important are the following: the Meningococcus, Pneumococcus, Streptococcus, and Hemophilus influenza (type B). There are effective vaccines available for Hemophilus (HIB), now routinely given to all young children at the time of their other shots, and for several of the strains of the Meningococcus. It is the Meningococcal Meningitis that has been in the news and is the one being presently made available to all persons from 2 to 22 in the hope of reducing the carrier incidence in the population to levels such that "outbreaks" do not occur.

The bacteria causing Meningitis are believed to be carried in the nose and throat of 1 in 10 people and can be transmitted only through very close contact, such as sneezing or kissing. These bacteria do not live outside of body fluids so cannot be caught in swimming pools, crowds, or other public places.

The Symptoms of meningitis are variable (not all occurring in everyone) and may progress over a period of hours up to a couple of days.

INFANTS and TODDLERS: May appear drowsy and unresponsive or difficult to awaken or may appear to have a fixed staring expression. A rising temperature may appear late so parents are urged to seek help if they suspect meningitis and not await a fever. Other symptoms include any of the following: vomiting, diarrhea, shallow breathing, pale or blotchy skin, refusal to eat, loss of muscle tone or jerky muscle contractions, high pitched moans or crying, or tense or bulging fontanelles. The development of a rash or bleeding under the skin is a late and very dangerous sign -not to be waited for prior to seeking medical help.

OLDER CHILDREN and ADULTS: The signs and symptoms include: A headache and/or stiff neck, aching joints especially the back, an avoidance of bright lights, vomiting, diarrhea, drowsiness or confusion, and a rising temperature. As above, not all of these signs may be present in all cases and the presence of a rash of red or purple spots or bruises caused by bleeding under the skin is a very late and ominous sign demanding IMMEDIATE hospital attention.

Some persons experience a mild flu-like condition prior to any of the above symptoms. Suspect Meningitis if there is a sudden and sometimes violent change in these symptoms. It is, then, essential that you seek medical attention immediately as urgent treatment with special antibiotics is required.

Charles H. Pierce, MD, PhD