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"New Caney, Crosby, Mauriceville -- Close to Home!
Meningitis -- Should I Be Worried?"
Your Life -- Your Health
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Meningitis is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain. People sometimes refer to it as spinal meningitis. Meningitis is usually caused by a viral or bacterial infection. Knowing whether meningitis is caused by a virus or bacterium is important because the severity of illness and the treatment differ. Viral meningitis is generally less severe and resolves without specific treatment, while bacterial meningitis can be quite severe and may result in brain damage, hearing loss, learning disability or death. For bacterial meningitis, it is also important to know which type of bacteria is causing the meningitis because antibiotics can prevent some types from spreading and infecting other people. Streptococcus pneumoniae and Neisseria meningitidis are the leading causes of bacterial meningitis. Local outbreaks due to group C meningococcus were reported in Canada and the U.S.A. in 1992-1993 and in Spain in 1995- 1997.

The risk of getting the main type of meningitis and septicaemia, meningococcal disease, is very small, even if you have been in contact with someone who has the disease. The bacteria which cause meningitis and septicaemia are very common. Most of us will carry them at some stage in our lives without developing any illness. Only a tiny proportion of the population will develop meningitis or septicaemia if they come into contact with the bacteria. The bacteria are very weak. They survive for only a short period of time outside the body, so they cannot live long in the air and are not carried on household objects such as clothes, furniture or toys. This means that you must be in very close contact with someone before the bacteria can pass between you. Even though this happens quite regularly, it is unlikely you will develop meningitis or septicaemia because most of us have natural resistance to the bacteria. Although meningitis and meningococcal septicaemia are not common diseases they are very dangerous and can develop rapidly. That is why it is vital that everyone knows the signs and symptoms to watch out for.

On the other hand, meningococcal septicaemia is a type of blood poisoning which is caused by the same bacteria that causes the most common form of bacterial meningitis. It is the more life- threatening form of the disease. With septicaemia, the bacteria release toxins into the blood which break down the walls of the blood vessels allowing blood to leak out under the skin. This leaking causes marks on the skin - a rash of red or brownish pin prick spots which develop into purple bruises, blood blisters or blood spots. Septicaemia can make you very ill because it also reduces the amount of blood reaching vital organs such as the liver and kidneys.

There are vaccines that protect against meningitis and septicemia, but although most of these vaccines provide excellent protection they can't prevent all strains of these diseases. As yet, there is no vaccine that can prevent all forms of meningitis and septicaemia. Group B meningococcal meningitis and septicemia is the most common type of the disease and no effective vaccine can protect against this, so knowing the signs and symptoms is vital. There is a vaccine that protects against four strains of N. meningitidis, but it is not routinely used in the United States and is not effective in children under 18 months of age. The vaccine against N. meningitidis is sometimes used to control outbreaks of some types of meningococcal meningitis in the United States.

Meningitis cases should be reported to state or local health departments to assure follow-up of close contacts and recognize outbreaks. Although large epidemics of meningococcal meningitis do not occur in the United States, some countries experience large, periodic epidemics. Overseas travelers should check to see if meningococcal vaccine is recommended for their destination. Travelers should receive the vaccine at least 1 week before departure, if possible. Information on areas for which meningococcal vaccine is recommended can be obtained by calling the Centers for Disease Control and Prevention at (404)-332-4565.

A vaccine to prevent meningitis due to S. pneumoniae (also called pneumococcal meningitis) can also prevent other forms of infection due to S. pneumoniae. The pneumococcal vaccine is not effective in children under 2 years of age but is recommended for all persons over 65 years of age and younger persons with certain chronic medical problems.

Those at high risk for developing meningococcal meningitis and/or septicemia include people with:

- no spleen or a non-functioning spleen (due to accident or disease)
- sickle cell disease
- coeliac syndrome
- deficient immune systems due to disease or treatment, such as cancer, organ transplantation, or HIV
- chronic heart, lung or kidney disease or nephrotic syndrome
- diabetes
- chronic liver disease including cirrhosis

What are the signs and symptoms of meningitis?

High fever, headache, and stiff neck are common symptoms of meningitis in anyone over the age of 2 years. These symptoms can develop over several hours, or they may take 1 to 2 days. Other symptoms may include nausea, vomiting, discomfort looking into bright lights, confusion, and sleepiness. In newborns and small infants, the classic symptoms of fever, headache, and neck stiffness may be absent or difficult to detect, and the infant may only appear slow or inactive, or be irritable, have vomiting, or be feeding poorly. As the disease progresses, patients of any age may have seizures.

How Do You Contract Meningitis?

Transmission is by direct contact, including respiratory droplets from nose and throat of infected persons. Most infections are subclinical and many infected people become symptomless carriers. Waning immunity among the population against a particular strain favors epidemics, as do overcrowding and climatic conditions such as dry season or prolonged drought and dust storms. Upper respiratory tract infections may also contribute to the development of epidemics. The Incubation period -- the time between contact with the organism and the development of symptoms -- is two to ten days days, but is most often three to four days.

How is meningitis diagnosed?

Early diagnosis and treatment are very important. If symptoms occur, the patient should see a doctor immediately. The diagnosis is usually made by growing bacteria from a sample of spinal fluid. The spinal fluid is obtained by performing a spinal tap, in which a needle is inserted into an area in the lower back where fluid in the spinal canal is readily accessible. Identification of the type of bacteria responsible is important for selection of correct antibiotics.

Treatment of Meningitis

Meningococcal disease is potentially fatal and should always be viewed as a medical emergency. Admission to a hospital is necessary. Antimicrobial therapy must be instituted as soon as possible after the lumbar puncture has been carried out. However, isolation of the patient is not necessary. A range of drugs may be used depending on antibiotic susceptibility: penicillin G, ampicillin; chloramphenicol, ceftriaxone. Oily chloramphenicol may be the drug of choice in areas with limited health facilities because a single dose of the long-acting form has been shown to be effective.

Epidemics usually spread rapidly to a peak within weeks but may last for several months in the absence of vaccination. Polysaccharide vaccines are available against serogroups A, C, Y, W135. A mass immunization campaign that reaches at least 80% of the entire population with serogroup A & C vaccine can halt an epidemic due to meningococci of these serogroups.

Treatment For Those in Close Contact With Meningococcus

Treatment can be considered for people in close contact with patients in the endemic situation. It is not an effective means of interrupting transmission during an epidemic. Potential antibiotics are rifampicin, ciprofloxacin and ceftriaxone.

What Should I Do For My Family?

Like any potentially life-threatening illness, meningitis must be respected, but you don't have to live in fear of it. If you follow the following simple steps, you and your family will be fine:

1. If your child is in the classroom with a child who is diagnosed with meningococal disease, call you physician immediately. If she/he is unfamiliar with treatment protocols, ask for a referral.
2. If you live in an area where there are large numbers of cases -- more than five -- get an immunization for you and your children who are over two.
3. If you or your child develops any of the cardinal signs or symptoms -- severe headache, stiff neck, fever, red rash all over the body -- call your physician and/or, after office hours, go to the emergency room for evaluation and treatment.

Remember, it is your life and it is your health.