Meningitis Vaccines

Currently there are vaccines available to prevent Haemophilus influenza type B (known as Hib) pneumococcal and meningococcal types of bacterial meningitis.

The Hib vaccine has been in the routine childhood immunisation schedule since 1993. There are different types of Hib conjugate vaccine, requiring doses at either 2, 4 and 12 months or 2, 4, 6, and 12 months of age. The vaccine has eliminated more than 95% of cases of Hib meningitis. Recent cases have occurred only in children who have not been fully immunised.

The conjugate pneumococcal vaccine is part of the routine childhood immunisation schedule and is given at 2, 4, and 6 months of age. It provides very long-term protection against the 7 most common sub-types of pneumococcal bacteria. Certain children are at higher risk of contracting pneumococcal disease, and require additional doses of vaccine. These include Immuno-compromised children, those with certain chronic diseases or abnormalities and aboriginal children. Day care attendance may also increase risk. It is the preferred vaccine for all children under 5 years of age, and is licensed for use in Australia for children 6 weeks to 9 years of age.

Polysaccharide pneumococcal vaccine may be used in children older than 2 years of age and adults. The vaccine is part of the recommended immunisation schedule for people 65 yrs of age or older, Indigenous people, those individuals with no spleen, immune disease or other high-risk medical conditions. It provides protection against the 23 sub-types most common in adults and older children, but of a shorter duration, and may require a "booster" dose after 5 years.

There are also conjugate and polysaccharide meningococcal vaccines available. The group C conjugate meningococcal vaccine is for all ages. It is only effective against group C meningococcal bacteria, which causes between 15% and 50% of meningococcal infections in Australia, depending on where you live. Meningococcal C vaccine is part of the routine immunisation schedule at 12 months.

The polysaccharide meningococcal vaccine provides 3 to 5 years protection against sub-groups A, C, W135 and Y. Routine vaccination is not recommended, but it is recommended for persons older than 2 years with certain Immune defects, or with no spleen, or travelling to high-risk areas where outbreaks are frequent. These include Africa, the Middle East and Northern India. It is a visa requirement for pilgrims attending the Hajj in Saudi Arabia.

For further information refer to the Australian Immunisation Handbook, 8th Edition, Sections 3.4, 3.14, 3.18.

Hygiene

The viruses and bacteria that cause most cases of meningitis are spread by prolonged, close personal contact. In addition, thorough hand washing with soap and water may reduce the transmission of viruses in the household or in childcare facilities.

What should you do if you think someone might have Meningitis?

See your GP immediately. If your GP is not immediately available, go straight to the nearest hospital emergency department. If your GP or the hospital has reassured you, do not hesitate to return to the GP or hospital immediately if the symptoms worsen. Remember, meningitis can progress rapidly.

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More Information

For information about The Meningitis Centre and how it can help you contact:

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THE MENINGITIS CENTRE

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THE MENINGITIS CENTRE

The Facts About Meningitis

Every Second Counts

What is meningitis?

Meningitis means inflammation of the membranes 'meninges' lining the brain. There are many types of meningitis and while the symptoms are often similar, the causes, treatments and outcomes can vary greatly. This brochure provides some important information on the most common types of meningitis.

Causes of meningitis

The organisms that usually cause meningitis include bacteria, viruses, parasites and fungi.

Bacterial meningitis

Bacterial meningitis is the most common life-threatening type of meningitis and can cause death within hours. Most cases of bacterial meningitis in children and adults are caused by meningococcal and pneumococcal bacteria.

In the past, Haemophilus influenzae type B (Hib) meningitis was the most common cause of bacterial meningitis in children but Hib has almost been eliminated by vaccines that were introduced in Australia in1993.

Death occurs in about 5-15% of cases of bacterial meningitis and, in addition, about 20% of patients are left with a permanent disability including cerebral palsy, limb amputation, deafness, or learning difficulty.

The most common causes of bacterial meningitis in newborn babies include Group B streptococcal, E coli, and Listeria bacteria.

Fitting *Changing Moods* *Coma* **Lethargy** *Dislike of Bright Lights*

Viral meningitis

Viral meningitis is an uncommon complication of some common viral illnesses e.g. herpes simplex virus, echovirus. Viral meningitis is rarely fatal and not usually injurious unless the patient also has an immune disease.

Amoebic meningitis

Amoebic meningitis is very rare. There have not been any cases reported in WA for well over a decade. It is usually caused by water containing amoeba being forced up the nose when jumping into unchlorinated swimming holes when the water temperature is about 30°C.

Fungal meningitis

Fungal meningitis is very rare and usually occurs only in patients with an immune disease, such as leukaemia or AIDS. Fungal meningitis is usually slow to start and difficult to diagnose and treat.

How serious is meningitis?

Meningitis is a very serious illness. However, if the cause is diagnosed and treated quickly, most people make a complete recovery. With bacterial meningitis, the patient will usually become very ill within hours. Prompt antibiotic therapy can mean the difference between life and death.

How can you tell if someone has meningitis?

Most cases of meningitis start with a fever, a severe headache and neck stiffness, followed by vomiting and altered consciousness e.g. excessive irritability or drowsiness. A spotty unblanching red/purple rash sometimes occurs, most commonly with meningococcal meningitis and is an important sign that the patient must see a doctor urgently. Sometimes the rash may appear without specific symptoms of meningitis – this occurs when there is infection of the blood (septicaemia), and the predominant symptoms may include fever, chills, vomiting, muscle/joint pains and drowsiness/confusion.

If you suspect meningitis seek urgent medial advice. Do not wait for a rash to appear.

Signs and symptoms of meningitis in babies:

- Fever
- Rapid breathing
- Rash
- Vomiting
- Irritability
- Drowsiness
- Pallor
- Rash

Signs and symptoms of meningitis in older children and adults:

- Fever
- Chills
- Headache
- Neck stiffness
- Vomiting
- Muscle and joint pains
- Drowsiness/confusion
- Rash

How is bacterial meningitis spread?

The bacteria that cause meningitis are common and are spread from person-to-person by respiratory secretions. Fortunately, these bacteria rarely cause illness. Bacteria that cause meningitis die very quickly outside the body and cannot be picked up from drinking water, swimming pools, or environmental surfaces.

What can be done to prevent people getting meningitis?

Most forms of meningitis cannot be prevented. However, vaccines are available for some important types of bacterial meningitis. Household contacts of patients with meningococcal meningitis are at an increased risk of meningococcal infection and are routinely offered antibiotics to kill any meningococcal bacteria that they may be carrying in their nose and throat. Other contacts of a patient with meningococcal meningitis such as school friends or workmates are not at an increased risk of meningococcal meningitis and usually do not require antibiotics.