



Pneumococcal disease in children

What is pneumococcal disease?

Pneumococcal (pronounced new-mo-cockle) disease is caused by a range of bacteria known as pneumococci. Infection can cause a range of illnesses. The most common are:

- Meningitis (infection of the membranes around the brain)
- Septicaemia (infection of the blood sometimes referred to as 'blood poisoning')
- Pneumonia (infection of the lungs)
- Otitis media (infection of the middle ear)

Other bacteria can also cause these diseases. Pneumococcal meningitis is the leading cause of meningitis in children under five years of age. Children under one year of age have the highest risk of pneumococcal meningitis. In 2002 there were 761 cases of invasive pneumococcal disease and nine deaths in children under the age of five.

The emergence of antibiotic-resistant strains of this organism has become an increasing challenge for the management of invasive pneumococcal disease. Recent reports in Australia indicate that up to 21% of types of pneumococcal bacteria are resistant to two or more types of antibiotic.



What are the symptoms?

Pneumococcal meningitis

Symptoms include fever, vomiting, joint or muscle pain, irritability,



headache, stiff neck, dislike of bright lights, fits, high-pitched crying, bulging fontanelle in infants, drowsiness, confusion, loss of consciousness. Even if treated, meningitis can leave permanent damage such as deafness and mental disabilities. It may even result in death.

Septicaemia

Symptoms include fever, irritability, rapid breathing and lack of ability to console your child.

Pneumonia

The main symptoms are fever, cough and rapid breathing.

Otitis media

Symptoms include pain, crying, tugging at the ear, fever, irritability, sometimes pus from the ear, poor hearing, and sometimes diarrhoea and vomiting

How is it spread?

The pneumococcal bacteria are commonly found in the nose and throat of healthy adults and children. Most children become carriers at one time or another, but not all will become sick. It can be passed from one child to another through droplets that are released into the air by sneezing and coughing.

The occurrence of pneumococcal disease in younger children is more common since they lack the right type of antibodies to fight the bacteria. Children are therefore both major carriers and at higher risk of pneumococcal disease.

What are the risk factors for pneumococcal disease?

- Children under 2 years of age.
- Infants or children who attend day care*.
- Other groups at particularly high risk include indigenous people and those with chronic disease, or those who are immuno-compromised (people with some cancers, leukaemia, or HIV).

* based on overseas studies

How can I protect my child?

Pneumococcal vaccine is available to all babies at 2, 4 and 6 months of age and for children born since 1st January 2003 through a catch up program.

Vaccine side effects

Possible side effects of pneumococcal immunisation include swelling, redness and soreness at the injection site. Some children (1 in 10) may also develop a low grade fever, be sleepy, restless or irritable. Severe reactions are very rare.

Illustrations taken from Understanding Childhood Immunisation with permission from the Commonwealth Department of Human Service and Health.

