

Pneumococcal Disease



What is pneumococcal disease?

Pneumococcal disease is an acute infection caused by the *Streptococcus pneumoniae* bacteria. It can cause a variety of illnesses including pneumonia, infection around the brain (meningitis) and blood poisoning (septicaemia); pneumonia being the most common in the NT. The bacteria can also cause less severe illness such as sinus and ear infections.

How is it spread?

The bacteria are found in respiratory secretions and can be spread by direct oral contact eg kissing or direct contact with articles soiled with infected mouth or nose secretions. Person to person spread occurs but illness among casual contacts is uncommon.

Many healthy people carry the bacteria in their nose and throat.

What are the symptoms?

The time between being infected with the bacteria and becoming sick is uncertain but may be as short as 1-3 days. The symptoms will vary depending on which part of the body is affected.



Who is at risk?

People at increased risk of contracting pneumococcal disease are the very young, the elderly, individuals with an impaired immune response, people with chronic disease, people with cerebrospinal fluid leaks, tobacco smokers, and in the NT, the Indigenous population.



What is the treatment?

Pneumococcal disease is treated with antibiotics.

How can pneumococcal disease be prevented?

A vaccine is available for both adults and children. The *Streptococcus pneumoniae* bacteria has over 90 serotypes. The childhood vaccine (7vPCV)



protects against 7 of the serotypes and the adult vaccine protects against 23 of the serotypes. Approximately 90% of all serious (invasive) pneumococcal disease in Australia is due to one of these serotypes. The vaccine is approximately 90% effective in healthy adults but the response is diminished in immunocompromised persons. The childhood vaccine is 95% effective against the 7 serotypes found in the vaccine.

Since the introduction of the childhood vaccine to high risk groups in 2001 the number of cases of serious disease in the NT due to 7 valent vaccine serotypes has reduced by 90% when compared to the previous 3 years. The overall reduction in invasive disease for all serotypes in this group is approximately 33% for the same period.

Between 2001–2004 in the NT, approximately 75% of invasive pneumococcal disease in the previously unfunded group was due to one of the 7 serotypes found in the vaccine. It is anticipated the introduction of universally funded vaccine will substantially reduce the amount of disease in this group.

Side effects of the vaccine

Serious side effects are rare. Up to 10 % of children may have some redness at the site or a mild fever. In adults local redness and soreness at the injection site for the first couple of days is common.

How can pneumococcal disease be controlled?

Preventive antibiotic treatment or vaccination of individuals who have been in contact with an infected person is not currently recommended.

For more information contact your nearest Centre for Disease Control.

Darwin	89228804
Katherine	89739049
Nhulunbuy	89870359
Tennant Creek	89624259
Alice Springs	89517907



NT pneumococcal vaccination recommendations (as per current NT Vaccination Schedules)

The childhood vaccine (7vPCV) is free from your CHC or immunisation provider for:

- all children up to 2 years old
- all Central Australian Indigenous children up to 5 years old
- all children under 5 years of age with specific medical risk factors
- IN 2005 ONLY—a catch up program for all children born between 1st January 2003 and 31st December 2004

Medical risk factors for children include:

1. Congenital immune deficiency including symptomatic IgG subclass or isolated IgA deficiency, but excluding children where monthly immunoglobulin infusion is required
2. Immunosuppressive therapy (including corticosteroid therapy equivalent to greater than 2mg/kg per day of prednisone for more than 2 weeks) or radiation therapy, where there is sufficient immune reconstitution for vaccine response to be expected
3. Compromised splenic function due to sickle haemoglobinopathies, or congenital or acquired asplenia
4. HIV infection, before and after development of AIDS
5. Renal failure, relapsing or persistent nephrotic syndrome
6. Down's syndrome
7. Cardiac disease associated with cyanosis or cardiac failure
8. All premature infants with chronic lung disease
9. All infants born at less than 28 weeks gestation
10. Cystic fibrosis
11. Insulin-dependent diabetes mellitus
12. Proven or presumptive cerebrospinal fluid leak
13. Intracranial shunts and cochlear implants

[†]<http://www.immunise.health.gov.au/handbook.htm>

The adult vaccine (23vPPV) is free from your CHC or immunisation provider for:

- all NT Indigenous people 15 years and older
- all NT non-Indigenous people 65 years and older

And as a booster dose for

- all Indigenous children at 18-24 months
- those children with specific medical risk factors

The adult vaccine (23vPPV) is recommended but unfunded* for:

- All non-Indigenous people between 5 and 65 years with the following medical risk factors

*This vaccine is available through the Pharmaceutical Benefits Scheme (PBS) by prescription from your doctor.

Medical risk factors include:

1. Alcoholism
2. Chronic lung disease (including 2 or more episodes of pneumonia)
3. Chronic liver disease
4. Chronic heart disease
5. Chronic renal failure
6. Diabetes
7. CSF leaks
8. Asplenia or non functioning spleen (Where possible, the vaccine should be given at least 14 days before splenectomy)
9. Immunocompromised individuals (see section 3.18 of The Australian Immunisation Handbook 8th Edition for more details[†])
10. Tobacco smokers

Vaccination schedules, fact sheets and treatment protocols are available at: <http://www.nt.gov.au/health/cdc>