

# Invasive Pneumococcal Disease

## What is Invasive Pneumococcal Disease?

Invasive pneumococcal disease is caused by the bacteria *Streptococcus pneumoniae*. The bacteria invade body sites that are normally sterile (germ free), commonly causing severe disease such as lung infections (pneumonia), blood poisoning (bacteraemia) and/or infection around the brain (meningitis). The bacteria can also cause less severe illness such as sinus and ear infections.

## How is it spread?

*Streptococcus pneumoniae* usually live harmlessly in the nose and throat of healthy people. The bacteria can be passed from person-to-person via droplets, by direct oral contact such as kissing, or indirectly via toys and other items freshly soiled with respiratory secretions. Occasionally, the bacteria will invade the body or blood stream and cause invasive pneumococcal disease.

Pneumococcal infections can occur at any time of year but are more common in winter and early spring. Having a respiratory viral infection such as influenza may also increase the risk of being infected and developing invasive pneumococcal disease.

## What are the symptoms?

The time between being infected with the bacteria and becoming sick is uncertain but may be as short as one to three days. Symptoms depend on which part of the body is affected and the age of the person. They may include:

**Meningitis** – fever, headache, neck stiffness, nausea, vomiting and drowsiness.

**Pneumonia** – fever, shortness of breath, lack of energy, headache, chest pain and cough.

**Bacteraemia** – fever, muscle aches and pains, lack of energy and drowsiness.

## Who is most at risk?

Anyone can get invasive pneumococcal disease. The following groups have a higher risk of developing invasive disease:

- Aboriginal and Torres Strait Islander people;
- the elderly;
- children under two years of age;
- people with a weakened immune system;
- people with chronic medical conditions such as lung disease, heart disease, kidney disease or HIV infection;
- people who do not have a spleen; and
- people with certain immunocompromising conditions.

## How is it diagnosed and treated?

A doctor will usually diagnose invasive pneumococcal disease by the symptoms, a physical examination and ordering some tests. Tests may include a chest x-ray and taking samples to look for the bacteria in the infected part of the body (for example, blood or cerebrospinal fluid). Invasive pneumococcal disease is treated with antibiotics under a doctor's care.

## What if I have been in contact with someone with the disease?

Antibiotic treatment and/or vaccination of people who have been in contact with a person with invasive pneumococcal disease is not usually required. However, people who have a weakened immune system (for example, people on chemotherapy) should consult their doctor.

## Vaccination recommendations

### Children under 5 years of age living in the ACT

A vaccine to protect children against invasive pneumococcal disease is offered to all children at 2, 4 and 12 months of age as part of the funded National Immunisation Program (NIP). Please note that some immunisation providers may charge a consultation fee.

Infants and children with medical conditions that increase their risk of pneumococcal disease require additional doses of vaccine. Please see your immunisation provider to discuss the relevant vaccination recommendations for your child.

### Adults and older children

Pneumococcal vaccination is recommended and funded for:

- People aged 70 years and older;
- Aboriginal and Torres Strait Islander people aged 50 years or older; and
- Anyone with certain medical conditions that increase the risk of pneumococcal disease.

The number of doses and timing of vaccination varies, depending on age and type of underlying medical condition.

Non-indigenous adults 70 years and older and Aboriginal and Torres Strait Islander adults 50 years and older are recommended to receive one dose of Prevenar 13<sup>®</sup> vaccine at 70 years of age or older.

Please see your doctor to discuss the current vaccination recommendations relevant to you.

## Need more information?

For more information about invasive pneumococcal disease, contact your doctor or call Health Protection Service, Communicable Disease Control Information Line during business hours on **(02) 5124 9213**.

**Communicable Disease Control Section at Health Protection Service** is responsible for the investigation and surveillance of notifiable or infectious conditions in the ACT in order to control or prevent their spread in the community. This includes the promotion of immunisation, education and other strategies that help to limit the spread of diseases.

Invasive pneumococcal disease is a notifiable disease. Cases notified to ACT Health are investigated by Public Health Officers.

## Acknowledgements

1. Heymann, DL, 2015, Control of Communicable Diseases Manual, 20th edition.
2. Australian Technical Advisory Group on Immunisation (ATAGI). Australian Immunisation Handbook, Australian Government Department of Health, [immunisationhandbook.health.gov.au](http://immunisationhandbook.health.gov.au)
3. National Centre for Immunisation Research and Surveillance. Pneumococcal Vaccines, Frequently asked questions. Available from: <http://www.ncirs.edu.au/provider-resources/ncirs-fact-sheets/>

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