
Pneumococcal disease – immunisation

Summary

- Pneumococcal immunisation is recommended for children, especially for babies.
 - Immunisation is also recommended for people aged 65 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over and those with a serious underlying medical condition.
 - In Victoria, pneumococcal vaccines are provided free of charge under the National Immunisation Program for all young children, people aged 65 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over, and some people who are more at risk of infection.
 - Serious reactions to the pneumococcal vaccines are rare.
-

Pneumococcal disease is caused by the bacterium, *Streptococcus pneumoniae*. The infection can cause milder symptoms such as sinusitis or ear infections. More serious complications include inflammation of the brain (meningitis), inflammation of the lungs (pneumonia) or a blood infection (septicaemia).

People in high-risk groups are more likely to become seriously ill or die from pneumococcal disease. Pneumococcal immunisation is recommended for young children, people aged 65 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over and those with a serious underlying medical condition. Serious medical conditions include, but are not limited to, chronic heart, kidney and lung disease, diabetes and a weakened immune system.

Immunisation can substantially reduce the risk of infection, especially in young children. Serious side effects or allergic reactions to the pneumococcal vaccine are rare. If you are concerned about your reaction or your child's reaction to any vaccine, see your doctor immediately.

Complications of pneumococcal disease

Pneumococcal immunisation can help prevent a number of serious complications of pneumococcal disease including:

- **sinusitis** – infection of the air spaces in the face that causes pain, a blocked nose, yellow-green nasal mucus and headache
- **middle ear infection** – causes pain in the ears, hearing loss, high temperature, nausea and vomiting
- septic arthritis – joint infection causes pain, swelling and reduced mobility of the joint
- **pneumonia** – lung inflammation that causes fever, cough, chest pains and breathing problems, such as shortness of breath
- **septicaemia** – a very serious blood infection that causes fever, headache and muscular aches and pains
- **meningitis** – inflammation of the brain that causes high fever, headache, stiff neck, nausea and vomiting, and sometimes coma
- death – approximately 30 per cent of cases of pneumococcal meningitis are fatal.

Immunisation against pneumococcal disease

Vaccines are available to reduce the risk of pneumococcal disease and immunisation is recommended for people in high-risk groups.

People who should receive the pneumococcal vaccine

A number of medical conditions put people at higher risk of pneumococcal disease and people with these conditions require immunisation. You should speak with your doctor about whether you (or your child) are at risk.

Situations where immunisation is required include people who have:

- **no spleen** or have a spleen with poor function
- a weakened immune system - includes people with **kidney failure**, **human immunodeficiency virus (HIV)**, acquired immunodeficiency syndrome (AIDS), people receiving **chemotherapy** or **radiotherapy**, people who have received a transplant or people with a genetic immune deficiency
- leakage of fluid from around the spine and brain (cerebrospinal fluid)
- cochlear implants
- shunts in the brain
- **heart disease**
- **lung disease** (including people who smoke)
- **diabetes**
- **down syndrome**
- **chronic liver disease**
- alcoholism
- been born prematurely (less than 28 weeks gestation).

People who should not receive the pneumococcal vaccine

The pneumococcal vaccine should not be given to people who have had:

- a serious allergic reaction (anaphylaxis) after any earlier dose of pneumococcal vaccine
- a serious allergic reaction (anaphylaxis) to any component of the vaccine.

Immunisation against pneumococcal disease for children

The immunisation schedule for children involves a course of a primary vaccine that reduces the risk of infection with 13 strains of pneumococcal bacteria. This vaccine is most effective for very young children. A second type of vaccine that reduces the risk of infection with 23 strains of pneumococcal bacteria is given as a booster dose to children from four years of age, if they have a medical condition putting them at high risk of pneumococcal disease or were born prematurely before 28 weeks gestation.

Protection for children against pneumococcal disease is available under the National Immunisation Program Schedule. In Victoria, immunisation against pneumococcal disease is free of charge for:

- children at two, four and 12 months of age - three primary doses of the vaccine that covers 13 different types of the pneumococcal bacteria
- medically at-risk children receive three doses of vaccine at two, four and six months, the fourth dose at 12 months and a booster vaccine at four years if children have conditions that put them at high risk of illness (see above)
- children born prematurely (less than 28 weeks gestation) – receive four doses of the vaccine at two, four, six months and 12 months
- Aboriginal and Torres Strait Islander children receive four doses of primary vaccine at two, four, six months and 12 months if children live in high-risk areas including Queensland, Northern Territory, Western Australia or South Australia (not Victoria)
- Aboriginal and Torres Strait Islander children aged 15 years and over who are medically at risk - a booster dose of vaccine is available
- children up to and including five years - catch-up immunisations are available for children who have not received the vaccinations. The number of recommended doses depends on the child's age and health.

Immunisation against pneumococcal disease for adults

Protection for adults against pneumococcal disease is available under the National Immunisation Program Schedule. In Victoria, immunisation against pneumococcal disease is free of charge for:

- Aboriginal and Torres Strait Islander people aged between 15 and 49 years with medical risk factors (see above)
- all Aboriginal and Torres Strait Islander people aged 50 years or older

- all people aged 65 years or older

All adults aged less than 65 years who are medically at risk should also be immunised (see definitions above) although the vaccine is not free under the National Immunisation Program. Speak to your doctor or immunisation provider for further information about the vaccine and its costs.

Pregnancy and pneumococcal immunisation

Immunisation against pneumococcal disease is not usually recommended for women who are pregnant or breastfeeding. Women who are at increased risk of pneumococcal infection should be vaccinated before pregnancy or as soon as possible after giving birth. Speak with your doctor about whether you are at risk of infection and should be immunised.

Pre-immunisation checklist

Before receiving the vaccine, tell your doctor or nurse if you (or your child):

- are unwell (temperature over 38.5 °C)
- have allergies to any other medications or substances
- have had a serious reaction to any vaccine
- have had a serious reaction to any component of the vaccine
- are pregnant

Side effects of the vaccines against pneumococcal disease

Vaccines against pneumococcal disease are effective and safe although all medications can have unwanted side effects.

Side effects from the vaccine are uncommon and usually mild, but may include:

- localised pain, redness and swelling at the injection site
- occasionally, an injection-site lump (nodule) that may last many weeks but treatment is not needed
- low-grade temperature (fever).

Managing fever after immunisation

Common side effects following immunisation are usually mild and temporary (occurring in the first few days after vaccination). Specific treatment is not usually required.

There are a number of treatment options that can reduce the side effects of the vaccine including:

- giving extra fluids to drink and not overdressing if there is a fever
- although routine use of paracetamol after vaccination is not recommended, if fever is present, paracetamol can be given - check the label for the correct dose or speak with your pharmacist, (especially when giving paracetamol to children).

Managing injection site discomfort

Many vaccine injections may result in soreness, redness, itching, swelling or burning at the injection site for one to two days. Use a cold wet cloth on the injection site, paracetamol might be required to ease the discomfort.

Concerns about immunisation side effects

If the side effect following immunisation is unexpected, persistent or severe or if you are worried about yourself or your child's condition after a vaccination, see your doctor or immunisation nurse as soon as possible or go directly to a hospital. Immunisation side effects may be reported to SAEFVIC, the Victorian vaccine safety service.

It is also important to seek medical advice if you (or your child) are unwell, as this may be due to other illness rather than because of the vaccination.

Rare side effects of immunisation

There is a very small risk of a serious allergic reaction (anaphylaxis) to any vaccine. This is why you are advised to

stay at the clinic or medical surgery for at least 15 minutes following immunisation in case further treatment is required.

Immunisation and HALO

The immunisations you may need are decided by your health, age, lifestyle and occupation. Together, these factors are referred to as HALO.

Talk to your doctor or immunisation provider if you think you or someone in your care has health, age, lifestyle or occupation factors that could mean immunisation is necessary. You can check your immunisation HALO using the [Immunisation for Life infographic \(pdf\)](#) downloadable poster.

Where to get help

- Your doctor
- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Your local government immunisation service
- **Maternal and Child Health Line** (24 hours) Tel. **132 229**
- **NURSE-ON-CALL** Tel. **1300 60 60 24** - for expert health information and advice (24 hours, 7 days)
- **Immunisation Section, Department of Health and Human Services, Victorian Government** Tel. **1300 882 008**
- **National Immunisation Information Line** Tel. **1800 671 811**
- Your local pharmacist
- **SAEFVIC**, the Victorian vaccine safety service Tel. **1300 882 924 #1**

This page has been produced in consultation with and approved by:

Department of Health and Human Services - RHP&R - Health Protection - Communicable Disease Prevention and Control Unit

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.

For the latest updates and more information, visit www.betterhealth.vic.gov.au

Copyright © 1999/2019 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.