**Pneumococcal disease – immunisation**

**Summary**

- Pneumococcal immunisation is recommended for children, especially for babies.
- Pneumococcal immunisation is also recommended for people aged 70 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over and those with a serious medical risk condition.
- In Victoria, pneumococcal vaccines are provided free of charge under the National Immunisation Program for all young children, people aged from 70 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over and people with some risk conditions.
- 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 babies, people aged 70 years and over, Aboriginal and Torres Strait Islander people aged 50 years and over and those with a serious medical risk condition. Serious medical risk conditions include, but are not limited to, heart disease, kidney and lung disease, diabetes, no spleen or poorly functioning spleen and a weakened immune system.

Immunisation can substantially reduce the risk of infection, especially in babies. 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. 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.

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You should speak with your doctor about whether you (or your child) are at risk.

Pneumococcal immunisation is required for people who have:

- no spleen or have a spleen with poor function
- a weakened immune system – includes people with immune deficiency, HIV infection, 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.

It is also required for people who:

- smoke (or who smoked in the immediate past)
- use alcohol to a harmful degree (6 Australian standard drinks per day for men and 4 Australian standard drinks per day for women)
- were 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 babies and children

The immunisation schedule for babies involves a course of a primary vaccine that reduces the risk of infection with 13 strains of pneumococcal bacteria.

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

- babies at two months (from six weeks), four months and 12 months of age – receive one dose of the vaccine at each of these stages (three in total)
- medically at-risk babies – receive a dose of vaccine at two months (from six weeks), four months and six months, a fourth dose at 12 months, and a booster vaccine at four years then another booster dose a minimum of five years later
- babies born prematurely (less than 28 weeks gestation) – follow the schedule of vaccines for medically at-risk babies
- Aboriginal and Torres Strait Islander babies – receive four doses of vaccine at two months (from six weeks), four months, six months and 12 months if they live in high-risk areas including Queensland, Northern Territory, Western Australia or South Australia (not in Victoria)
- children aged less than five years – catch-up immunisations are available for children who have not received the pneumococcal vaccinations. The number of recommended doses depends on the child’s age and health.

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Immunisation against pneumococcal disease for adults

Adult immunisation against pneumococcal disease is available free of charge under the National Immunisation Program Schedule for:

- any person with certain serious medical risk conditions
- all Aboriginal and Torres Strait Islander people aged 50 years or older
- people aged from 70 years.

Some medical risk conditions for which it is recommended to receive pneumococcal immunisation do not qualify for free immunisation under the National Immunisation Program. Speak to your doctor or immunisation provider for further information about the vaccine and its cost.

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 (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 [GP (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. 13 22 29
- **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:**

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