Australian Government
Department of Health

IMMUNISE AUSTRALIA PROGRAM

A joint Australian, State and Territory Government initiative

Your guide to understanding childhood immunisation

IMMUNISATION

Your guide to understanding childhood immunisation
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Contents

Immunisation is a simple, safe and effective way of protecting children against certain diseases. The risks of these diseases are far greater than the very small risks of immunisation.

It's estimated that vaccination currently saves approximately three million lives each year worldwide.

Parents understandably want to do whatever they can to stop their child getting sick. This guide is a summary of the information in the *Understanding Childhood Immunisation* booklet, and will help you make an informed decision on immunisation based on the most accurate information available.

To view the full *Understanding Childhood Immunisation* booklet visit the Immunise Australia Program website at immunise.health.gov.au

If you have any questions about the information in this guide, please discuss with your General Practitioner or immunisation provider.

Fact

Over 90% of children are vaccinated in Australia.

What is immunisation?

Immunisation protects people against harmful infections before they come into contact with them. Immunisation uses the body's natural defences to build resistance to specific infections and helps children (and adults) stay healthy by preventing serious infections.

This guide focuses on the vaccines for young children funded under the National Immunisation Program.

The routine childhood immunisations given through this program currently provide protection against 13 diseases:

- diphtheria;
- haemophilus influenzae type b (Hib);
- hepatitis B;
- measles;
- meningococcal C;
- mumps;
- whooping cough (pertussis);
- pneumococcal disease;
- polio (poliomyelitis);
- rotaviral gastroenteritis;
- rubella (German measles);
- tetanus; and
- chickenpox (varicella).

Most of these diseases can cause serious complications and sometimes death.

It is also recommended that children at risk receive the seasonal influenza vaccination.

Immunisation and vaccination - what's the difference?

'Vaccination' is the term used for giving a vaccine - actually getting an injection or oral dose. 'Immunisation' is the term used for the process of both getting the vaccine and becoming immune to the disease as a result.

Why should I have my child immunised?

Immunisation is the safest and most effective way of giving protection against a disease. After immunisation, your child is far less likely to catch the disease if there are cases in the community. If your child does catch the disease, illness is less severe and recovery is quicker compared to an unimmunised child.

If enough people in the community are immunised, the infection can no longer be spread from person to person and the disease might die out altogether. This is how smallpox was eliminated from the world, and how polio has disappeared from many countries.

Fact

All vaccines available in Australia have been thoroughly tested for safety and efficacy and receive ongoing monitoring and evaluation.

Section 2

Immunisation – the basics

How does immunisation work?

When a person gets a vaccine, their body produces an immune response in the same way it would after exposure to a disease, but without suffering symptoms. When someone comes in contact with that disease in the future, their immune system remembers it and responds quickly, preventing the disease from developing.

Why do children need so many vaccinations?

A number of vaccinations are required in the first few years of life because the immune system in young children does not work as well as in older children and adults – it is still maturing, meaning exposure to diseases such as whooping cough can have life-threatening consequences.

The number of injections is reduced by the use of combination vaccines, where several vaccines are combined into one injection.

What is in vaccines?

Vaccines can contain a very small dose of a live (but weakened) virus, killed viruses, killed bacteria (or small parts of bacteria), or a small dose of a modified toxin produced by bacteria. Vaccines may also contain either a small amount of preservative or a small amount of an antibiotic to preserve the vaccine.

Some vaccines, such as influenza, may contain traces of egg protein and should be given with caution to people with a known egg allergy.

What are the side effects of immunisation?

Common side effects of immunisation are redness and soreness where the child has been injected, and mild fever. You may consider using pain relief to help ease any fever or soreness. More serious reactions to immunisation are very rare, but if they do occur, a doctor should be consulted immediately.

How long do immunisations take to work?

The normal immune response takes approximately two weeks to work. Most vaccines need to be given more than once to build long lasting protection.

How long do immunisations last?

It varies. Some, like tetanus vaccine, can last up to 30 years, after which time a booster dose may be given. Some, such as whooping cough, give protection for about five years after a full course. Seasonal influenza vaccinations need to be given every year.

Are all immunisations free?

Vaccines that are routinely recommended for your child under the National Immunisation Program are funded by the Australian Government and are free if your child is eligible for Medicare. Your doctor may charge you for a consultation fee.

Some additional vaccines are provided free of charge for children with specific medical conditions and Aboriginal and Torres Strait Islander children in the Northern Territory, Western Australia, South Australia and Queensland. See the full *Understanding Childhood Immunisation* booklet on the Immunise Australia website at immunise.health.gov.au for more information.

There are some differences in the way government funded immunisation programs are administered in each state and territory. If you are unsure which vaccines are free, speak to your GP or immunisation provider, refer to the National Immunisation Program Schedule magnet attached to this guide, or telephone the Immunise Australia Information Line on 1800 671 811.

Summary of diseases and how they are spread

The following is a summary of the diseases the National Immunisation Program routine childhood immunisations currently provide protection against, and how they are spread.

For more detailed information please refer to the full *Understanding Childhood Immunisation* booklet at immunise.health.gov.au

Chickenpox	
Caused by highly contagious virus; causes low grade fever and vesicular rash. Spread by respiratory secretions or fluid from open rash blisters.	
Signs and Symptoms	Rash, fever, difficulty walking and balancing
Complications	Infection of lesions, pneumonia, brain infection, meningitis (inflammation of the membranes around the brain and spinal cord)

Diphtheria	
Contagious bacteria spread by droplets; causes severe breathing difficulties.	
Signs and Symptoms	Sore throat, mild fever, swollen neck
Complications	Nerve and heart damage, membrane in throat causing breathing difficulties

Hib Disease	
Contagious bacteria spread by respiratory droplets; causes meningitis, epiglottitis (respiratory obstruction), septicaemia, osteomyelitis (infection of the bones).	
Signs and Symptoms	Neck stiffness, sensitivity to lights, drowsiness, loss of appetite, high fever
Complications	Meningitis, arthritis, pneumonia, death

Hepatitis A	
Contagious virus spread by contact with faeces or saliva, contaminated food or water.	
Signs and Symptoms	Fever, weakness, loss of appetite, vomiting, dark urine, pale faeces, jaundice, stomach pain
Complications	Liver infection and damage

Hepatitis B	
Contagious virus spread mainly by blood, sexual contact or from mother to newborn baby. Causes acute hepatitis or chronic carriage.	
Signs and Symptoms	Weakness, loss of appetite, headache, vomiting, stomach pain, muscle/joint pain, dark urine, pale faeces, jaundice
Complications	Liver failure, liver cancer

Influenza	
Contagious virus spread by respiratory droplets, causes tiredness, high fever, chills, headache, cough, sneezing, running nose, poor appetite and muscle aches.	
Signs and Symptoms	Tiredness, fever, chills, loss of appetite, muscle aches, cough, sneezing, runny nose
Complications	Pneumonia, liver complications, death

Measles	
Highly infectious virus spread by respiratory droplets; causes fever, cough and rash.	
Signs and Symptoms	Rash, fever, cough, runny nose, eye inflammation
Complications	Ear, brain and lung infection, brain damage, death

Meningococcal C Disease	
Bacteria spread by respiratory droplets; causes sepsis (infection of the blood stream) and meningitis (infection of the tissues surrounding the brain).	
Signs and Symptoms	High fever, neck stiffness, vomiting, sensitivity to light, irritability, drowsiness
Complications	Meningitis, blood infection, pneumonia, arthritis, conjunctivitis

Mumps	
Contagious virus spread by saliva; causes swollen neck glands, fever.	
Signs and Symptoms	Swelling under the jaw area, fever, headache, aching muscles
Complications	Infection of testicles, ovaries, pancreas, liver, brain and heart, hearing loss, brain inflammation, sterility in men

Polio	
Contagious virus spread by faeces and saliva; causes fever, headache, vomiting and may progress to paralysis.	
Signs and Symptoms	90% of the time there are no symptoms but they can include vomiting, tiredness, muscle pain, paralysis
Complications	Meningitis, paralysis, death

Pneumococcal Disease	
Bacteria spread by respiratory droplets; causes fever, pneumonia, septicaemia and meningitis.	
Signs and Symptoms	High fever, headache, vomiting, sensitivity to light, neck stiffness, loss of appetite, irritability, drowsiness
Complications	Meningitis, pneumonia, blood infection, middle ear, sinus infection

Rotavirus	
Contagious virus spread by faeces and saliva; causes severe gastroenteritis and fever.	
Signs and Symptoms	Diarrhoea, vomiting, fever
Complications	Severe diarrhoea, dehydration or shock

Rubella	
Contagious virus spread by respiratory droplets; causes rash, fever and swollen glands and may cause severe malformations to babies of infected pregnant women.	
Signs and Symptoms	Rash, swollen lymph glands, joint pain
Complications	Brain infection

Tetanus	
Toxin-producing bacteria in soil that can spread to humans through cuts in the skin.	
Signs and Symptoms	Muscle spasms, lockjaw, breathing difficulties, abnormal heart rhythms
Complications	Breathing difficulties

Whooping Cough	
Contagious bacteria spread by respiratory droplets. Causes persistent coughing for up to three months, occasionally associated with vomiting.	
Signs and Symptoms	Coughing, runny nose, fever
Complications	Lung infection, lack of oxygen to the brain, brain damage, death

Section 4

Special immunisation requirements for Aboriginal and Torres Strait Islander children

Aboriginal and Torres Strait Islander children living in Queensland, the Northern Territory, Western Australia and South Australia should receive all the routine vaccines given to other children with some additions.

For further information, contact your immunisation provider or your state or territory health department using the numbers included in the contacts section of this booklet.

Section 5

Children who are medically at risk

If your child has a chronic disease, allergies or asthma, has had a fit or has epilepsy, please see the full *Understanding Childhood Immunisation* booklet on the Immunise Australia website at immunise.health.gov.au or speak to your GP or immunisation provider.

Fact

Immunisation protects against harmful infections before your child comes into contact with them.

Common questions on getting immunised

Where can my child get immunised?

Immunisations can be provided at immunisation clinics, general practices, some hospitals, local councils and Aboriginal Community Controlled Health Services.

Are immunisations compulsory?

No, but they are highly recommended for all children. Some states and territories require a record of a child's immunisation status to be presented when the child attends day care or starts school. This is so the day care centre or school knows which children are not immunised if there is an outbreak.

Does my child have to start the schedule again if they miss a vaccination?

To get full protection, a child needs to have all the recommended vaccine doses, preferably on time. For most vaccines, if your child has fallen behind it is easy to catch up. There is no need to repeat the doses already received and there is no need to get extra doses. Talk to your GP or immunisation provider for more information.

Can more than one immunisation be given at the same time?

Yes. The vaccines recommended for routine use in babies and children can safely be administered at a single visit. There is a need to wait four weeks between giving live vaccines, if they are not given on the same day.

What if my baby was born premature?

Premature babies need the protection of immunisation because they are more prone to certain infections.

In general, babies born prematurely receive the same immunisations as other babies. However, very low birth weight babies may have a lower response to hepatitis B and may need an extra dose of the vaccine. Also, premature babies born at less than 28 weeks require an extra dose of pneumococcal vaccine at 12 months of age. The immunisation requirements of a very low birth weight baby should be discussed with your doctor.

If my child has a cough or cold, should immunisations be delayed?

Babies with minor coughs and colds without fever, or those receiving antibiotics in the recovery phase of an acute illness, can be immunised safely and effectively. Ask your GP or health clinic staff before delaying immunisation.

Should children be immunised while their mother is pregnant?

There is no problem with giving routine immunisations to a child whose mother is pregnant.

What if someone else in the family has had a reaction to an immunisation?

Immunisations should not be missed if another family member has had any reaction to a vaccine as these reactions are not hereditary.

What if my child has a reaction after receiving a vaccination?

Reporting adverse events following immunisation is important.

You should report an adverse event to your immunisation provider. Alternatively, advise the Therapeutic Goods Administration at tga.gov.au/safety/index.htm

What if my child is due to have an operation?

Immunisations should not be postponed if a child is due to have an operation.

Are there any reasons for delaying immunisation?

If a child is sick with a high temperature (over 38.5 degrees Celsius), immunisation should be postponed until the child is recovering. In some instances, children with cancer, an immune deficiency disorder or who are on medications which may interfere with their ability to fight infection, should not be immunised with vaccines that contain live viruses such as Measles, Mumps and Rubella (MMR) and chickenpox vaccines. Children who have had a blood transfusion or immunoglobulin should not have their MMR or chickenpox vaccine until up to six months after the transfusion. If you are in doubt about whether your child is fit for immunisation, discuss the circumstances with your doctor or nurse before postponing immunisation.

How can I keep track of my child's immunisations?

The Australian Childhood Immunisation Register (ACIR or Immunisation Register) records information about immunisations given to Australian children.

You can request a statement at any time by visiting Medicare Online Services at the Immunisation Register website (humanservices.gov.au).

Section 7

Common questions on immunity and immunisation

Are immunisations still necessary?

Yes. Many diseases prevented by immunisation are spread directly from person to person, so good food, water and hygiene do not stop infection.

Can immunisations overload the immune system?

No. Children and adults come into contact with many antigens (substances that provoke a reaction from the immune system) each day, and the immune system responds to each in various ways to protect the body. While the risks associated with the diseases are high, the risks associated with vaccination are low.

Do some children get the disease despite being immunised?

A small proportion of those who are immunised will remain susceptible to the disease. However, when illness does occur in immunised children, it is usually much less severe.

Should breastfed children still get immunisations?

Breastfed children should be immunised. Breast milk does not provide permanent protection.

Do vaccines cause cancer, chronic fatigue syndrome, multiple sclerosis, allergies, or auto-immune disease?

No. After millions of vaccinations over many decades, there is no evidence to suggest that immunisations cause such diseases and conditions.

Does MMR vaccine cause inflammatory bowel disease or autism?

There is no validated scientific evidence to support this suggestion.

Fact

The risk from childhood disease is much higher than the risks of immunisation.

Section 8

Pain relief for children to reduce side effects

To reduce fever or discomfort after vaccination, you can use pain or fever relief medicines, such as paracetamol, as directed.

Section 9

Immunisation and your eligibility for some government benefits

A number of government family assistance payments require children to meet the immunisation requirements.

For more information, visit humanservices.gov.au/immunisation or visit a Centrelink or Medicare Service Centre.

Fact

Skipping vaccinations puts your child at greater risk of contracting vaccine preventable diseases.

Enquiries

Australian Capital Territory
ACT Immunisation Inquiry Line (02) 6205 2300

New South Wales 1300 066 055

Northern Territory (08) 8922 8044

Queensland Contact the local Public Health Units (look under "Health" in the White Pages) or 13 HEALTH (13 43 25 84) 24 hour health hotline

South Australia
Immunisation Section 1300 232 272

Tasmania 1800 671 738

Victoria 1300 882 008

Western Australia (08) 9321 1312

The Australian Childhood Immunisation Register

1800 653 809 (free call – Interpreter service to translate records also available).

To order additional copies of this guide, visit immunise.health.gov.au or call the Immunise Australia Information line on 1800 671 811.

To view the full *Understanding Childhood Immunisation booklet* visit the Immunise Australia Program website at immunise.health.gov.au

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