

Measles

Measles is a very contagious viral illness that causes a skin rash and fever. Serious and sometimes fatal complications include pneumonia and encephalitis (brain inflammation). Measles is also known as rubeola. Worldwide, measles is the fifth highest cause of illness and death in children.

Measles is rare in Australia because of the widespread use of the measles vaccine. However, it is important to continue vaccinating children because there is a risk that the infection can be brought in by people arriving or travelling from other countries.

Symptoms of measles

The signs and symptoms of measles may include:

- Fever
- Generally feeling unwell (malaise)
- Runny nose
- Dry cough
- Sore and red eyes (conjunctivitis)
- Red and bluish spots inside the mouth (Koplik's spots)
- Red and blotchy skin rash that appears first on the face and hairline, then spreads to the body.

Complications of measles

Some of the complications of measles include:

- **Otitis media** – inflammation of the middle ear.
- **Diarrhoea and vomiting** – may cause further complications such as dehydration.
- **Respiratory infections** – such as bronchitis, croup or laryngitis.
- **Pneumonia** – a type of lung inflammation that causes about 60 per cent of measles deaths.
- **Pregnancy problems** – if a pregnant woman contracts measles, she risks miscarriage or premature labour.
- **Encephalitis** – or brain inflammation, affects about one person with measles in every 1000. About 10 to 15 per cent of patients with encephalitis die. About 15 to 40 per cent of survivors have permanent brain damage to varying degrees.
- **Subacute sclerosing panencephalitis (SSPE)** – occurs in about one in every 100,000 cases of measles. SSPE is an extremely rare progressive inflammation of the brain that causes loss of personality and intellectual disabilities. It usually begins about seven years after the measles infection.

How measles is spread

Measles is most commonly spread when someone ingests (swallows) or inhales the cough or sneeze droplets from an infected person. The measles viruses inside mucus or saliva droplets remain viable for several hours. Infection can occur if someone touches contaminated surfaces or objects and then touches their own mouth or nose, or eats with unwashed hands. Symptoms usually occur about 10 to 12 days after infection.

Measles is very contagious. Estimates suggest that a person with measles will infect about nine in every 10 people they have contact with who have not been immunised or previously infected with measles.

High risk groups and measles

Measles is rare in Australia thanks to immunisation, but cases still occur. At high risk is anyone who hasn't been vaccinated, particularly children and health care workers. People who are at increased risk of potentially fatal measles complications include:

- Anyone with a chronic illness
- Children younger than five years
- Adults.

Diagnosis of measles

Tests used to diagnose measles may include:

- Medical history, including immunisation status and travel history
- Physical examination
- Blood test.

Treatment – uncomplicated measles

An uncomplicated case of measles usually lasts about 14 days and most people make a full recovery. In the meantime, treatment options may include:

- Bed rest
- Plenty of fluids
- Paracetamol to reduce pain and fever
- Isolation to reduce the risk of transmission.

Treatment – complicated measles

Occasionally, measles is a serious disease that requires urgent treatment and can even be life threatening. Sometimes, a person dies despite prompt medical attention.

Treatment depends on the complication but may include:

- Hospitalisation
- Supportive care
- Antibiotics to treat bacterial infection.

Prevention of measles

Immunisation is the best protection against measles. A person who receives the recommended two doses has 99 per cent immunity against measles infection. If you have been infected with measles, it usually offers lifelong immunity.

Immunisation for measles is available

The measles vaccine in Australia is combined with mumps and rubella (German measles) vaccines and is commonly known as MMR (after each disease). In Victoria, this vaccine is available free to:

- **Young children** – at 12 months of age
- **Children** – at four years of age
- **Children from 13 months to four years of age (inclusive)** – as a 'catch-up' immunisation, if they have not been fully vaccinated.

Immunisation is also recommended for adults born during or since 1966 – unless you have evidence of having received two doses of MMR. If you have not received the vaccine, ask your doctor about catch-up doses.

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

Measles immunisation is not for everyone

Not everyone is a suitable candidate for measles vaccination. A person with an impaired immune system should not be vaccinated. Some of the possible causes of impaired immunity may include:

- Certain medications, such as corticosteroids
- Immunosuppressive treatment
- Some types of cancer, such as Hodgkin's disease or leukaemia
- Hypogammaglobulinaemia, a congenital or acquired condition characterised by extremely low levels of antibodies.

You should not be given the vaccine if you are already pregnant and pregnancy should be avoided for 28 days after the vaccination.

Pre-immunisation checklist

Before immunisation, it is important that you tell your immunisation provider if you (or your child):

- Are unwell (temperature over 38.5°C)
- Have had a serious reaction to any vaccine
- Have had a severe allergy to anything
- Have had a 'live' vaccine in the last month
- Are pregnant.

Side effects of the vaccine

The vaccine is effective and safe. However, all medicines can have unwanted side effects. Side effects from the measles vaccine are rare and usually mild but may include:

- High fever (over 39°C)
- Faint red rash (not infectious)
- Drowsiness or tiredness
- Head cold and/or runny nose
- Cough and/or puffy eyes
- Swollen salivary glands
- Soreness and redness at the injection site.

Treating mild side effects

Some side effects may occur five to 12 days after immunisation and last two to three days. There are a number of treatment options to reduce the side effects of the vaccination:

- Paracetamol to reduce any fever – check the label for the correct dose (especially for children)
- A cold, wet cloth held against the injection site
- Extra drinks
- Appropriate clothing – do not overdress.

Rare side effects

There is a very small risk of a serious allergic reaction to any vaccine. This is why you are advised to stay at the clinic or medical surgery for at least 15 minutes following vaccination in case further treatment is required. Apart from anaphylaxis, other extremely rare side effects include encephalitis and thrombocytopenia (abnormal bleeding caused by insufficient blood platelets).

If reactions are severe and persistent, or if you are worried, contact your doctor for further information.

Contact with someone with measles

If you have NOT been immunised against measles and you've been in contact with someone with measles, there are different treatment options depending on how long it's been since you were in contact with the infected person. For example:

- **Contact in the last 72 hours** – if you have not been immunised and have been in contact with someone who has measles, you should receive measles immunisation immediately.
- **Contact in the last 3 to 7 days** – immunoglobulin is advised to provide interim protection. This is known as passive immunisation. Measles vaccination, or active immunisation, should be given later to prevent further risk of infection, but not until three months after you received the immunoglobulin. Normal human immunoglobulin (NHIG), given as an intramuscular injection, is freely available.

If you are not able to have the measles vaccine and were exposed to an infected person in the last seven days, you should be given immunoglobulin.

Where to get help

- Your doctor
- Always call an ambulance in an emergency (triple zero) Tel. 000
- Emergency department of your nearest hospital
- Your local council immunisation service
- Immunisation Program, Department of Health Victoria –Tel. 1300 882 008
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Maternal and Child Health Line is available 24 hours a day Tel. 13 22 29
- National Immunisation Infoline Tel. 1800 671 811

Things to remember

- Measles is a very contagious viral illness that causes a skin rash and fever.
- Measles can cause serious, sometimes fatal, complications including pneumonia and encephalitis.
- Measles is rare in Australia because of the widespread use of the measles vaccine.

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

Department of Health - Communicable Disease Prevention and Control Unit

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