Measles, mumps, rubella, varicella (chickenpox) – immunisation

Summary

- Immunisation is the best protection against measles, mumps, rubella and chickenpox.
- The National Immunisation Program provides immunisations against measles, mumps, rubella and varicella (commonly known as chickenpox).
- Immunisation against measles, mumps, rubella and chickenpox can be provided with the MMRV combination vaccine.
- Immunisation against measles, mumps and rubella can be provided with the MMR combination vaccine.
- Immunisation against chickenpox can be provided with a chickenpox only vaccine.
- Common immunisation side effects are usually mild and temporary (occurring in the first few days after vaccination) and do not require specific treatment.

The Immunise Australia Program provides immunisations against measles, mumps, rubella and varicella (chickenpox). Immunisation against these four diseases can be given in the form the MMRV combination vaccine, or the MMR combination vaccine and a single vaccine for chickenpox, depending on your age.

Vaccination against measles, mumps and rubella requires two doses of vaccine. Vaccination against chickenpox requires one dose to help protect against serious complications associated with chickenpox and to protect from developing shingles later in life.

Research shows that two doses of chickenpox vaccine in children provides increased protection and reduces the risk of 'breakthrough' chickenpox in children under 14 years of age. Breakthrough chickenpox occurs when people who are immunised against chickenpox get the disease.

Immunised children who get breakthrough chickenpox generally have a much milder form of the disease. They have fewer skin lesions, a lower fever and recover more quickly.

The government funds one free dose of chickenpox vaccine and a second dose can be purchased on prescription.

Any person with a reliable history of having had a chickenpox infection is considered immune and does not require the vaccine.

Because of the potential for serious complications from infectious diseases in young children, especially measles, the first dose of the MMR vaccine is given at 12 months of age, without the varicella vaccine. This is due to an increased risk of febrile convulsions in children under four years of age who receive their first dose of MMR as MMRV.

Immunisation with MMRV vaccine at 18 months gives very young children early protection against measles, mumps, rubella and chickenpox.

Immunisation with MMRV

Immunisation is the best protection against measles, mumps, rubella and chickenpox. It is important to know that it is safe for children with egg allergies to receive the MMRV vaccine.

Protection against measles, mumps, rubella and chickenpox is available under the National Immunisation Program Schedule.

In Victoria, immunisation against these diseases is free of charge for:

- children at 12 months – the first immunisation is given as the MMR combination vaccine
- children at 18 months of age – the second immunisation is given as the MMRV combination vaccine
- young people up to and including 19 years of age who have not been fully immunised – young people can receive free National Immunisation Program catch-up vaccines

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women planning pregnancy or after the birth of their child – two doses of MMR are available for women who have low immunity or no immunity to rubella

refugees and humanitarian entrants over 20 years of age – catch-up immunisations with MMR are available for people who have not been fully immunised

people born during or since 1966, without evidence of two documented doses of valid MMR vaccine or without a blood test showing evidence of immunity to measles, mumps and rubella, are eligible for one or two doses of MMR vaccine. (If two MMR doses are required they should be given a minimum of 28 days apart.) If you have not received the vaccine, ask your doctor or immunisation provider about catch-up doses.

Note: The MMRV combination vaccine is not recommended for people aged 14 years and over. From 14 years of age people require the MMR vaccine and a separate chickenpox vaccine.

People who should not be immunised with MMR or MMRV

MMR and MMRV vaccination is not recommended for everyone. A person with an impaired immune system should not be vaccinated.

Some of the possible causes of impaired immunity include:

- infection with human immunodeficiency virus (HIV) or the presence of acquired immunodeficiency syndrome (AIDS) from an HIV infection
- taking certain medications, such as high-dose corticosteroids
- receiving immunosuppressive treatment, including chemotherapy and radiotherapy
- having some types of cancer, such as Hodgkin's disease or leukaemia
- having an immune deficiency with extremely low levels of antibodies (hypogammaglobulinaemia, multiple myeloma or chronic lymphoblastic leukaemia).

If you have an impaired immune system, speak with your doctor about what options might be available.

Pregnancy and measles immunisation

You should not be given the MMR vaccine if you are already pregnant. Pregnancy should also 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 (have a temperature over 38.5 °C)
- have had a serious reaction to any vaccine
- have had a serious reaction to any component of the vaccine
- have had a severe allergy to anything
- have had a 'live' vaccine in the last month
- have had recent immunoglobulin or blood transfusion treatment
- have a disease or you are having treatment that causes low immunity
- are pregnant or intend to become pregnant.

Side effects of MMR and MMRV vaccines

The combined MMR and MMRV vaccines are effective and safe, but all medications can have unwanted side effects.

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

Side effects from MMR and MMRV vaccines that can occur seven to 10 days after vaccination include:

- fever (can be more than 39.4 °C), lasting two to three days
- faint red rash (not infectious)
- head cold, runny nose, cough or puffy eyes

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• drowsiness or tiredness
• swelling of salivary glands
• localised pain, redness and swelling at the injection site.

The MMRV vaccine can cause a mild chickenpox-like rash five to 26 days after vaccination.

Managing fever after immunisation

The following treatment options can reduce the effects of fever after immunisation:

• Give extra fluids to drink and do not overdress children if they have 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

Vaccines may cause soreness, redness, itching, swelling or burning at the injection site for one to two days. Paracetamol might be required to ease the discomfort.

Sometimes a small, hard lump at the injection site may persist for some weeks or months. This should not be of concern and requires no treatment.

Concerns about side effects

If a 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.

It is 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.

Immunisation side effects may be reported to the Victorian Vaccine Safety Service (SAEFVIC), the central reporting service in Victoria on 1300 882 924 (option 1). You can discuss how to report problems in other states or territories with your immunisation provider.

Uncommon and rare side effects

Uncommon or rare side effects of the MMR and MMRV vaccines include:

• fever causing seizure (febrile convulsions) – occurs in about 1 out of 3,000 young children vaccinated
• temporary pain and stiffness in the joints – this is rare in young children, but more common in people immunised during their teenage years or as adult women
• temporary low platelet count, causing bleeding or bruising – may occur after the first dose of MMR vaccine in about one out of 20,000 to 30,000 vaccinations.

Serious allergic reaction is a very rare side effect, occurring in less than one out of a million vaccinations.

Serious allergic reaction (anaphylaxis) to any vaccine rarely occurs. 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.

Another rare side effect is thrombocytopenia, which is bleeding caused by insufficient blood platelets.

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

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 HALO downloadable poster.

Where to get help

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In an emergency, call triple zero (000)

Your **GP (doctor)**

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 Hotline** Tel. **1800 671 811**
- **Pharmacist**
- **SAEFVIC** Tel. **1300 882 924** (option 1) -- the line is attended between 9 am and 4 pm and you can leave a message at all other times

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