

# Measles, Mumps, Rubella Vaccine

**Vaccines have saved more lives compared to any other medical intervention. Vaccines help your immune system to recognize and fight bacteria and viruses that cause serious diseases.**

## **Measles, mumps and rubella are vaccine preventable diseases.**

**Measles** is a serious and highly contagious disease. It causes a fever, a rash and cold-like symptoms within 14 days of exposure. Ear infections and pneumonia occur in 1 in 10 cases. Encephalitis (inflammation of the brain) occurs in 1 in 1,000 measles cases and can lead to seizures, deafness or permanent brain damage. 1 or 2 of every 1000 people with measles could die. Measles is severe in immune compromised people. If a pregnant woman is infected with measles, it can cause premature labour or miscarriage.

**Mumps** is a highly contagious and causes a fever and swelling of the salivary glands (parotitis). Mumps can cause meningitis (an infection of the lining that covers the brain) and encephalitis (inflammation of the brain) resulting in permanent brain damage and deafness. 3 in 10 males (after puberty) develop swollen testicles. 1 in 20 females (after puberty) develop swollen ovaries. Infertility from mumps is rare.

**Rubella** is very contagious and causes a fever, a rash, swollen lymph glands and joint pain. It can cause encephalitis (inflammation of the brain). If a pregnant woman gets rubella, it can cause a miscarriage or stillbirth, or the baby may be born with disabilities including heart disease, cataracts, deafness and intellectual disabilities.

## **How can these diseases be prevented?**

- Be immunized. When you / your child are immunized, you help protect others as well.
- Practice good hygiene (e.g. handwashing).
- Cover your mouth when coughing and your nose and mouth when sneezing to prevent direct contact with droplets from the nose or throat.

## **Who can get this vaccine for free?**

- Women of childbearing age who are not immune to rubella, before they are pregnant or after they have a baby.
- Children 1 year of age and older who need protection from these diseases, but not from varicella (chickenpox).
- Some non-immune adults can get 1 or 2 vaccine doses depending on their year of birth, previous immunization history, occupation and/or travel plans. Check with a public health nurse for details.

- Infants who are 6 months of age and older but younger than 1 year old may be recommended to get 1 dose in exceptional circumstances (e.g., during an outbreak of measles, mumps or rubella).

## **Who should not get this vaccine?**

- People who have a serious acute illness, with or without fever, should delay immunization.
- Persons who have had a life-threatening reaction to a previous dose of a measles, mumps or rubella-containing vaccine or any of the vaccine components.
- People with a family history of congenital or hereditary immunodeficiency whose immune status is unknown unless approved by a specialist.
- People with a weak immune system (because of medicine or a health condition) unless a doctor's permission is given.
- Pregnant women.
- People with active, untreated tuberculosis (TB).

## **Precautions:**

- Women planning to become pregnant within one month of immunization.
- People who have received a blood transfusion or other blood products within the past 11 months should check with their doctor or public health nurse before receiving the vaccine.
- Persons who have previously had a drop in platelets (the blood cells that help prevent bleeding) within 6 weeks of getting a previous dose of a measles, mumps or rubella-containing vaccine without another cause being identified should discuss their history with a public health nurse or physician before receiving this vaccine.

## **Other Considerations:**

- If you need another live vaccine, get it at the same time or you must wait 4 weeks before receiving the other live vaccine.
- If you need a TB skin test or TB blood work, get it at the same time as the MMR vaccine, or delay testing for 4 weeks.

## What are common reactions to this vaccine?

**Vaccines are very safe and effective. It is much safer to get this vaccine than to get any of these serious and very contagious diseases.**

**Temporary** reactions may include:

- A fever lasting up to 3 days may occur 6 to 23 days after immunization. Monitor your child and treat their fever if they are uncomfortable, refusing fluids and not sleeping.
- Pain, swelling and redness where the needle was given.
- Swelling of the jawline (salivary glands), cheeks and neck 7 to 12 days later.
- A blotchy red rash 4 to 12 days later.
- Joint or muscle aches and pain.
- Nausea, vomiting, diarrhea or decreased appetite.
- Headache, dizziness, fussiness, tiredness.
- Lymph nodes swelling near the immunized limb.

**Extremely rare** reactions may include:

- A temporary drop in the number of blood cells (platelets) that prevent bleeding (thrombocytopenia) within 6 weeks of being immunized. In most people, this resolves within 3 months without serious complications.
- Encephalitis (less than 1 in a million). The risk of encephalitis from measles disease is about 1 in 1,000, which is much higher than from this vaccine.

Use **Acetaminophen** (Tylenol®, Tempra®) or **Ibuprofen** (Advil®, Motrin®) to treat fevers and pain in children and adults. **Never give ASA** (Aspirin®) to anyone younger than 18 years old because of the serious risk of Reye's syndrome.

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is an extremely rare possibility of a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. This reaction can be treated, and occurs in less than one in one million people who get the vaccine. **If this happens after you leave the clinic, seek medical attention or call 911 right away.**

**For more information, contact your local public health office, your physician, nurse practitioner, HealthLine online or by calling 811.**

## Who should you report reactions to?

- Report any adverse or unexpected reactions to your local public health nurse, your doctor, nurse practitioner or call 811 as soon as possible.

**Talk to a public health nurse:**

- If you have questions or concerns about your or your child's reaction to an immunization.
- If you or your child had to go to a doctor, a hospital or to a health centre with a symptom that might be related to immunization.

## What does this vaccine contain?

**M-M-R® II** contains live attenuated measles virus (Enders' Edmonston strain), live attenuated mumps virus (Jeryl Lynn® B level strain), and live attenuated rubella virus (Wistar RA 27/3 strain), sorbitol, hydrolyzed gelatin, Medium 199 with Hank's salts, sodium phosphate monobasic, sodium phosphate dibasic (anhydrous), sucrose, sodium bicarbonate, Minimum Essential Medium (Eagle), potassium phosphate dibasic (anhydrous), neomycin, monosodium L-glutamate monohydrate, potassium phosphate monobasic, phenol red, water for injection. Manufacturing process residuals: recombinant human albumin, fetal bovine serum. Thimerosal-free. Latex-free.

**PRIORIX®** contains live attenuated measles virus (Schwarz strain), live attenuated mumps virus (RIT 4385 strain, derived from Jeryl Lynn strain), live attenuated rubella virus (Wistar RA 27/3 strain), amino acids, lactose, mannitol, neomycin sulphate and sorbitol. Thimerosal-free. Latex-free.

## Mature Minor Consent

It is recommended that parents/guardians discuss consent for immunization with their children. Efforts are first made to get parental/guardian consent for immunizations. However, children at least 13 years of age up to and including 17 years of age, who are able to understand the benefits and possible reactions for each vaccine and the risks of not getting immunized, can legally consent to or refuse immunizations in Saskatchewan by providing mature minor informed consent to a healthcare provider.

Provincial immunization fact sheets are available at [www.saskatchewan.ca/immunize](http://www.saskatchewan.ca/immunize).

**References:** [Canadian Immunization Guide](#). Product monographs (M-M-R® II, 2021; PRIORIX®, 2019).