

Measles, Mumps, Rubella Vaccine

Vaccines have saved more lives in Canada in the last 60 years than any other medical intervention. Vaccines help your immune system to recognize and fight bacteria and viruses that cause diseases.

Measles (red measles), mumps and rubella (German measles) are vaccine preventable diseases.

Measles causes a fever, a rash and cold-like symptoms, and can cause ear infections and pneumonia in 1 out of 10 cases. Encephalitis (inflammation of the brain) occurs in 1 in 1,000 measles cases, which can lead to seizures, deafness or permanent brain damage. Measles can cause a rare but fatal disease called subacute sclerosing panencephalitis (SSPE). It is estimated that for every 1000 cases of measles, 1 to 2 people will die.

Mumps causes a fever and swelling of the salivary glands (parotitis). Mumps can cause meningitis and encephalitis that can lead to permanent brain damage. Permanent deafness occurs in less than five in 100,000 cases. About three in 10 males (after puberty) develop swollen testicles. About one in 20 females (after puberty) develop swollen ovaries. Infertility from mumps is very rare.

Rubella causes a fever, a rash, swollen lymph glands and joint pain. Serious complications like encephalitis are rare. During pregnancy, rubella can cause miscarriage or stillbirth. It can cause the unborn baby to develop Congenital Rubella Syndrome (CRS) that includes heart disease, cataracts, deafness and intellectual disabilities. CRS occurs in 9 out of 10 babies born to women who have rubella within the first three months of their pregnancy.

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).

Who can get this vaccine for free?

- Women of childbearing age who are not immune to rubella.
- 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.

- Children 1 year of age and older who need protection from these diseases, but not from varicella (chickenpox).
- Infants who are 6 months of age and older but younger than 1 year old may be recommended to get 1 vaccine dose in exceptional circumstances (e.g., during an outbreak of measles, mumps or rubella).

Who should not get this vaccine?

- **Individuals who have a mild illness, with or without a fever, may be asked to defer their routine immunization based on current COVID-19 screening criteria.**
- People who have a serious 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.
- Those who have an immune system weakened by disease or medical treatment.
- A deferral of up to 11 months may be required for those who have received a blood transfusion or other blood products (e.g., an immune globulin) depending on the product received. Patients should discuss their transfusion history with a public health nurse or physician before receiving this vaccine.
- Pregnant women or women planning to become pregnant within one month.
- 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 wait at least 4 weeks.
- If you need TB skin testing, the vaccine should be given on the same day or you should wait for 4 weeks before immunizing.

Acetaminophen (Tylenol, Tempa) may be given for fever or soreness. ASA (Aspirin) must NOT be given to anyone younger than 18 years old because of the risk of Reye syndrome.

Immunization

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 pain, swelling and redness at the injection site.
- A mild fever.
- Swelling of the jawline (salivary glands) and cheeks 7 to 12 days later is rare.
- Temporary joint pain may occur in teenage and adult women.
- A measles/rubella-like rash (blotchy red rash) 4-12 days later.
- A high fever lasting 1 to 2 days may occur 7 to 10 days after getting this vaccine.
- Only treat a fever (at least 6 to 8 hours after immunization) if your child is uncomfortable, refusing fluids and not sleeping.

Extremely rare reactions may include:

- A temporary drop of the blood cells that prevent bleeding (thrombocytopenia). In most children, this resolves within three months without serious complications.
- Encephalitis (less than one in one million). As noted on the first page, **the risk of encephalitis from measles disease is about one in 1,000** which is much higher than from the vaccine.

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. **If this happens after you leave the clinic, call 911 or the local emergency number.** This reaction can be treated, and occurs in less than one in one million people who get the vaccine.

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

References: Product monographs (M-M-R® II, 2021; PRIORIX®, 2019).

Who should you report reactions to?

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

Talk to a public health nurse:

- If you have questions or concerns about you 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.