

# 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 one out of 10 cases. Encephalitis (inflammation of the brain) occurs in one in 1,000 measles cases and 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, one to two people will die.

**Mumps** causes a fever and swelling of the salivary glands (parotitis). Mumps can cause meningitis and encephalitis which 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) which includes heart disease, cataracts, deafness and mental retardation. 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 get 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?

**A mild illness, with or without a fever, is not a reason to avoid immunization.**

- 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.
- Those who have had a blood transfusion or received other blood products (e.g. immune globulin) within the past 12 months need to consult with a doctor or public health nurse.
- Pregnant women or women planning to become pregnant within one month.
- Those who 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.

## Other Considerations:

- If you need another live vaccine, get it at the same time or wait at least 4 to 6 weeks.
- If you need TB skin testing, the vaccine should be given on the same day or you should wait for 4 to 6 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 pain, swelling and redness at the injection site.
- A mild fever and swelling of the jawline (salivary glands) and cheeks 7 to 12 days later.
- 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.
  - Less than one in 3,000 children with high fevers after getting their first dose of MMRV may have febrile seizures. **Febrile seizures are temporary and not harmful to the child. If you are concerned, please talk to a public health nurse.**
  - High fevers can be controlled by giving acetaminophen to the child when they begin developing a fever after getting this vaccine.

**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.

Acetaminophen (Tylenol, Temptra) 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.

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, 2017; PRIORIX®, 2015).

## 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 your or your child's reaction to an immunization.
- If you had to take your child 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.

To ensure that a complete immunization record is maintained, every immunization administered to an individual will be documented by Public Health into the electronic provincial immunization registry, known as Panorama. Panorama is a secure electronic system used in Saskatchewan to record and manage immunization records and the health information related to immunization for all Saskatchewan residents. Immunization records may be shared with other health care professionals to provide public health services; assist with diagnosis and treatment; and to control the spread of vaccine preventable diseases. Information about Panorama is detailed in the "Protecting the Privacy of Your Immunization Record" fact sheet.