

Measles, Mumps, Rubella Vaccine

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

Measles, mumps and rubella can be prevented with vaccination. 2 MMR vaccine doses provide almost 100% protection and lifelong immunity for most people.

Measles is a highly contagious and serious disease.

- It can be especially dangerous for babies, young children, adults over 20, and people who are pregnant or have weakened immune systems.
- People with measles can spread the virus before they develop symptoms. The virus can stay in the air for up to two hours after an infected person has coughed or sneezed. If not immune, 9 out of 10 people exposed will get measles.
- Early symptoms include high fever, cough, runny nose, red watery eyes, and white spots in the mouth. About 3 to 7 days later, a red blotchy rash starts on the face and spreads across the body.
- Measles weakens the immune system for months or even years, making it harder for the body to fight other infections.
- During pregnancy, measles can cause miscarriage, premature delivery, low birth weight, congenital measles or stillbirth. It can cause serious illness in the pregnant person.
- A rare and deadly condition of the central nervous system called subacute sclerosing panencephalitis (SSPE) can develop 7-10 years after having measles, causing severe brain damage and death.
- 1 in 1,000 people with measles develops encephalitis (inflammation of the brain) that can cause permanent problems like hearing loss, vision loss, seizures, or paralysis.
- 1 in 10 people with measles develops ear infections or serious lung infections.
- 1 to 3 out of every 1,000 people with measles die from complications.

Mumps is a highly contagious disease.

- It causes fever and swelling of the salivary glands (often seen as puffy cheeks or jaw).
- Mumps can lead to serious complications such as meningitis (inflammation around the brain) and encephalitis, which can cause permanent brain damage or hearing loss.
- After puberty, about 3 in 10 males may develop swelling of the testicles and about 1 in 20 females may develop swelling of the ovaries. Infertility is rare but can occur.

Rubella is a highly contagious disease.

- Symptoms include fever, rash, swollen lymph glands, and joint pain.
- In rare cases, rubella can cause encephalitis.
- Rubella is especially dangerous during pregnancy. It can cause miscarriage, stillbirth or serious birth defects known as congenital rubella syndrome.

How can these diseases be prevented?

- **Get immunized** to protect yourself and others.
- Avoid exposure to infected individuals, especially during outbreaks, and ensure your immunizations are up to date before travelling.
- Wash your hands often and cover your mouth and nose when coughing or sneezing.

Who can get this vaccine for free?

- Children aged 1-12 years who need protection against measles, mumps, and rubella (but not chickenpox).
- People who are not immune and are planning a pregnancy or who have recently had a baby.
- Adults born on or after January 1, 1970.
- Other adults may also be eligible based on their age, immunization history, occupation, health status or travel plans. Speak with a public health nurse to learn more.
- Infants 6 to 11 months old may be eligible to receive one dose in special situations, such as during a measles outbreak or travelling abroad.

Who should not get the MMR vaccine?

- People who are very sick (with or without fever) should wait until they are feeling better before getting vaccinated.
- People who have had a serious or anaphylactic allergic reaction to a previous dose of MMR vaccine or any of its ingredients (excluding egg protein).
- People with a family history of congenital or hereditary immunodeficiencies, and whose immune status is unknown unless advised by a healthcare provider.
- People with weakened immune systems due to a medical condition or medications, unless approved by their healthcare provider.
- Pregnant individuals.
- People with active, untreated tuberculosis (TB).

Precautions:

- Avoid pregnancy for 1 month after getting MMR vaccine.
- People who received a blood transfusion or blood products in the past 11 months must check with a public health nurse before getting vaccinated.
- People who developed low platelets (a blood condition that affects clotting) within 6 weeks of a previous dose of measles, mumps or rubella-containing vaccine should talk to a healthcare provider before getting another dose.

Other Considerations:

- If you need another live vaccine, it should be given at the same time, **or** delay immunization for at least 4 weeks.
- If you need a TB skin test or TB blood work, get it at the same time or delay testing for 4 weeks.

What are common reactions to MMR vaccine?

Vaccines are very safe and effective. It is much safer to get MMR vaccine than to get any of these diseases.

Temporary reactions can include:

- A fever lasting up to 3 days can occur 6 to 23 days after immunization. Monitor your child and treat their fever if they are uncomfortable, not drinking, or not sleeping.
- Temporary pain, swelling or redness where the needle was given.
- Temporary swelling in the 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 node swelling near the immunized limb.

Extremely rare reactions can 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.

Stay at the clinic for 15 minutes after vaccination. In very rare cases, a serious allergic reaction (anaphylaxis) can occur. This can 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 these symptoms happen after you leave the clinic, get medical help right away or call 911.**

Who should you report reactions to?

Report any unexpected or serious reactions to your local public health nurse, doctor, nurse practitioner or HealthLine 811 as soon as possible.

Talk to a public health nurse if:

- You have questions or concerns; or
- You or your child needed medical care from a doctor, hospital or health centre for a symptom that might be related to a vaccine.

What does MMR 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 can 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

[saskatchewan.ca/immunize](https://www.saskatchewan.ca/immunize).

References: [Canadian Immunization Guide](#), product monographs.

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.