

Measles, Mumps, Rubella and Varicella 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.

Most people have 100% effective protection and lifelong immunity after getting two vaccine doses.

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 remain 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 to fight off 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 like 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.

Varicella (chickenpox) is a highly contagious disease.

- It causes fever and an itchy rash with fluid-filled blisters.
- The rash usually appears 10-21 days after exposure and often begins on the chest, back or face before spreading. New blisters may develop for several days before they dry up and form scabs.
- In some cases, chickenpox can cause serious infections of the skin (necrotizing fasciitis, 'flesh-eating disease'), lungs (pneumonia) or brain (encephalitis). These complications can lead to long-term health problems such as hearing loss, seizures, brain damage, or rarely, death.
- If a person gets chickenpox during pregnancy, it can cause serious problems for the baby, including birth defects, low birth weight, or infant death.
- After recovery, the virus remains in the body and can reactivate later in life as shingles. People who have never had chickenpox can develop chickenpox after exposure to someone with shingles.

How can these diseases be prevented?

- **Get immunized** to protect yourself and others.
- Avoid exposure to sick 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 you cough or sneeze.

Who can get this vaccine for free?

- Children 1 to 12 years old.

Who should not get the MMRV vaccine?

- Persons who are very sick (with or without fever) should wait until they are feeling better before getting vaccinated.
- People who had a serious or anaphylactic allergic reaction to a previous dose of measles, mumps, rubella or varicella-containing vaccine or any of the vaccine ingredients (excluding egg protein).
- Children who had chickenpox at one year of age or older and have lab-confirmed immunity do not need the varicella vaccine. They only require measles, mumps and rubella (MMR) vaccine.
- Children younger than 12 months of age and individuals 13 years and older are not eligible for MMRV vaccine.
- People with active, untreated tuberculosis (TB).

- Children with a family history of congenital or hereditary immunodeficiencies, and whose immune status is unknown unless advised by a healthcare provider.
- Children with weakened immune systems due to a medical condition or medications, unless approved by their healthcare provider.

Precautions:

- Children and youth younger than 18 years old who take aspirin (ASA) or similar medicines should talk to their healthcare provider before getting the vaccine. These medicines should be avoided for 6 weeks after varicella vaccination.
- If your child received a blood transfusion or other blood products in the past 11 months you should check with their doctor or public health nurse before getting the vaccine.
- If your child has recently taken certain antiviral medications, you should talk to their healthcare provider before vaccination.
- Anyone 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.

What are common reactions to this vaccine?

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

Temporary reactions can include:

- A fever lasting up to 3 days may occur 7 to 10 days after immunization. Monitor your child and treat their fever **if** they are uncomfortable, not drinking fluids, or not sleeping.
- A high fever after the first dose of MMRV vaccine may lead to a febrile seizure (less than 1 in 3,000 children). Febrile seizures are temporary and do not cause long-term health problems. If you have concerns, please talk to a public health nurse.
- Temporary pain, swelling or redness where the needle was given.
- Temporary swelling of the salivary glands, cheeks or neck 7 to 12 days after immunization.
- Joint or muscle aches and pain.
- Nausea, vomiting, diarrhea or decreased appetite.
- Headache, dizziness, fussiness, tiredness.
- Lymph node swelling near the immunized limb.
- A blotchy red rash 4 to 12 days later.
- A varicella-like (blister) rash 5 to 26 days after getting immunized. People who have this rash rarely spread the vaccine virus to others. To reduce the risk of spreading the virus, cover the rash until all blisters have dried and formed crusts.

Extremely rare reactions can include:

- A temporary drop in platelets (blood cells that help prevent bleeding) within 6 weeks of being immunized, that usually resolves within 3 months.
- Encephalitis (less than one in one million). The risk of encephalitis from measles disease 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 MMRV vaccine contain?

PRIORIX-TETRA® is a live vaccine and contains weakened forms of measles, mumps, rubella and chickenpox viruses, amino acids, lactose, mannitol, neomycin sulphate, sorbitol and water for injection. It is thimerosal-free. The rubber stoppers in the vials are made of natural rubber.

ProQuad™ is a live vaccine and contains weakened forms of measles, mumps, rubella and chickenpox viruses, sucrose, hydrolyzed gelatin, urea, sodium chloride, sorbitol, monosodium L-glutamate, sodium phosphate, recombinant human albumin, sodium bicarbonate, potassium phosphate, potassium chloride, residual components of MRC-5 cells including DNA and protein, neomycin, bovine serum albumin, minute quantities of egg protein and other buffer and media ingredients. It is thimerosal-free and latex free.

Provincial immunization fact sheets are available at 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.