

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.

Measles mumps, rubella and varicella (chickenpox) 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 and encephalitis 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.

Varicella begins with a fever followed by a red, itchy rash starting on body within 2 weeks after exposure. The rash begins as red spots and become fluid-filled blisters that gradually crust over. The rash lasts 3 to 4 days, but new crops of blisters develop every 2 to 3 days. **Varicella is more severe in teenagers, adults and those with weakened immune systems.**

Pneumonia (lung infection), skin, soft tissue and bone infections, necrotizing fasciitis ('flesh-eating disease'), toxic shock syndrome and encephalitis (swelling of the brain) causing convulsions, deafness or brain damage can occur. About 1 in 5,000 adults and 7 in 100,000 infants can die.

Complications are more common in newborns, adolescents, adults and immunocompromised individuals, who are at risk of severe varicella and death. If a pregnant woman gets varicella, it causes the baby to have a low birth weight, eye problems, skin scarring, arm and leg complications, abnormal brain development, or die if the mother is infected during the baby's birth. The virus can re-activate and cause shingles (herpes zoster). Individuals who have never had chickenpox can get infected if they are exposed to someone who has shingles.

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?

- Children one to 12 years of age.
- If your child had varicella before their first birthday, **they still need this vaccine** as they likely have not developed long lasting immunity and could get chickenpox again.
- Children who have documented lab-confirmed varicella immunity at one year of age or older do not need protection from varicella vaccine and only need the measles, mumps and rubella vaccine (MMR) vaccine.

Who should not get this vaccine?

- Persons who have a serious acute illness, with or without a fever, should delay immunization.
- People who had a life-threatening reaction to a previous dose of a measles, mumps, rubella or varicella-containing vaccine, or any components of the vaccine.
- Children younger than one year of age or those 13 years and older.
- People with a family history of congenital or hereditary immunodeficiency whose immune status is unknown unless approved by a specialist.
- Those with a weak immune system (because of medicine or a health condition) unless a doctor's permission is given.
- Pregnant individuals.
- People with active, untreated tuberculosis (TB).

Precautions:

- Individuals planning to become pregnant within one month of immunization.
- People younger than 18 years old who take salicylates (ASA or aspirin) need to be monitored by their specialist, as salicylates should be avoided for 6 weeks after varicella vaccination.
- 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.
- People who have recently taken some antiviral drugs.

- 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 health history with a public health nurse or physician before receiving this vaccine.

Other Considerations:

If you need a TB test or TB blood work, get it at the same time as the MMRV 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 diseases.

Temporary reactions may include:

- A fever lasting up to 3 days may occur 7 to 10 days after getting this vaccine. Monitor your child and treat their fever (at least 6 to 8 hours after immunization) **if** they are uncomfortable, refusing fluids and not sleeping.
- Less than 1 in 3,000 children with high fevers after getting their first dose of MMRV **may** have a febrile seizure.

Febrile seizures are temporary and not harmful to the child. If you are concerned, please talk to a public health nurse.

- Soreness, swelling and redness at the injection site.
- Swelling of the jawline (salivary glands), cheeks and neck 7 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.
- 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 prevent possible viral spreading, the rash should be covered until the blisters have dried and crusted over.

Extremely rare reactions may include:

- A temporary drop of 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 one in one million). The risk of encephalitis from measles disease is about one in 1,000, which is much higher than from this vaccine.

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

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, call 911.**

Who should you report reactions to?

- Report any adverse or unexpected reactions to your local public health nurse, your doctor, nurse practitioner or 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 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, sorbital, 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, sorbital, 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 (PRIORIX-TETRA®, 2019), ProQuad™ (2022).

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.