

Measles, mumps, rubella and varicella (MMRV) vaccine

Keep your child safe.

Get all vaccines on time.

By getting all vaccines on time, your child can be protected from many diseases

over a lifetime.

Immunization has saved more lives in Canada in the last 50 years than any other health measure.

What is the MMRV vaccine?

The MMRV vaccine protects against

- Measles
- Mumps
- Rubella
- Varicella (chickenpox)

The vaccine contains weakened forms of the measles, mumps, rubella and varicella-zoster viruses.

The MMRV vaccine is approved by Health Canada and is free as part of your child's routine immunizations. Call your health care provider to make an appointment.

Who should get the vaccine?

The MMRV vaccine is given as 1 dose to kindergarten age children starting at age 4. Most of these children would have received 1 dose of MMR and varicella vaccines on or after their 1st birthday. The dose of MMRV vaccine provides more protection for your child against measles, mumps, rubella and varicella. Children 4 to 12 years of age who are not immunized against these diseases may also get the MMRV vaccine as a series of 2 doses.

What are the benefits of getting the vaccine?

The vaccine is the best way to protect against measles, mumps, rubella and varicella which are serious and sometimes fatal diseases. When you get

your child immunized, you help protect others as well.

What are the possible reactions after the vaccine?

Vaccines are very safe. It is much safer to get the vaccine than to get measles, mumps, rubella or varicella.

Common reactions to the MMRV vaccine may include soreness, redness and swelling where the vaccine was given. A mild fever, swelling in the cheeks or neck, and a rash that looks like measles, rubella or chickenpox may occur about 1 to 2 weeks after the vaccine. Very rarely, a person who develops a chickenpox-like rash after being immunized can spread the virus from the vaccine. To prevent spreading it to others, cover the rash until the blisters have dried and crusted over.

More serious reactions may include a temporary drop in the blood cells that help prevent bleeding (about 1 child in 30,000) and encephalitis, an inflammation of the brain (about 1 child in 1 million). The possibility of getting encephalitis from measles, about 1 in 1,000, is much higher than from the vaccine. The risks of serious reactions following MMRV vaccine have not been established. They may be similar to the MMR vaccine risks listed above.

Acetaminophen (e.g. Tylenol®) or ibuprofen (e.g. Advil®) can be given for fever or soreness. ASA (e.g. Aspirin®) should not be given to anyone under 18 years of age due to the risk of Reye Syndrome.

For more information on Reye Syndrome, see [HealthLinkBC File #84 Reye Syndrome](#).

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is an extremely rare possibility, less than 1 in a million, of a life-threatening allergic reaction called anaphylaxis. This may include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this reaction occurs, your health care provider is prepared to treat it. Emergency treatment includes administration of

epinephrine (adrenaline) and transfer by ambulance to the nearest emergency department. If symptoms develop after you leave the clinic, call 9-1-1 or the local emergency number.

It is important to always report serious or unexpected reactions to your health care provider.

Who should not get the vaccine?

- Speak with your health care provider if your child:
- Had a life-threatening reaction to a previous dose of a measles, mumps, rubella or varicella vaccine, or any part of the MMRV vaccine including neomycin and gelatin
- Has an immune system weakened by disease or medical treatment
- Had a blood transfusion or received other blood products within the past 12 months
- Had a drop in platelets, the blood cells that help prevent bleeding, after getting a previous dose of MMR or MMRV vaccine without another cause being identified
- Has active untreated tuberculosis
- Is pregnant or planning to become pregnant. Women should avoid becoming pregnant for 1 month after getting the vaccine

There is no need to delay getting immunized because of a cold or other mild illness. However, if you have concerns speak with your health care provider.

What are measles, mumps, rubella and varicella?

Measles, mumps, rubella and varicella are diseases caused by viruses. The viruses are easily spread through the air when an infected person coughs or sneezes. You can become infected when you breathe in air or touch a surface contaminated with this virus. The viruses can also spread through contact with an infected person's saliva when sharing food, drinks, cigarettes, or by kissing. Varicella can also be spread by contact with fluid from the chickenpox or shingles blisters.

Measles, also known as red measles, causes fever, rash, cold-like symptoms and red, inflamed eyes that can be sensitive to light. It can lead to infections of the ear or lungs (pneumonia). More serious complications, occurring in 1 person in 1,000, include encephalitis, an inflammation of the brain. This can

lead to seizures, deafness or permanent brain damage. About 1 person in 3,000 with measles can die from complications.

Mumps causes fever, headaches, and swelling of the salivary glands and cheeks. More serious complications include encephalitis. About 1 in 20 people with mumps get mumps meningitis, an infection of the lining of the brain. Mumps can also cause temporary deafness. Permanent deafness occurs in less than 1 in 20,000 people with mumps. Adults and teens with mumps can have painful swelling of the testicles (about 1 in 4 cases) or ovaries (about 1 in 20 cases).

Rubella, also known as German measles, can cause serious complications and birth defects in an unborn baby including deafness, eye problems, heart defects, liver damage, and brain damage. This is called Congenital Rubella Syndrome. It occurs in about 9 out of 10 babies born to women who become infected with the virus in the first 3 months of their pregnancy. Rubella can also cause miscarriage or stillbirth.

Varicella (chickenpox) is an infection caused by the varicella-zoster virus. Children with chickenpox can have on average 350 red, itchy blisters. Infection in newborns, teenagers, adults, pregnant women and those with weakened immune systems is more severe.

Complications from chickenpox include pneumonia, encephalitis, and bacterial infections of the skin. Encephalitis can lead to seizures, deafness or brain damage. About 1 in 3,000 adults will die from the infection.

Rarely, infection early in pregnancy can result in a baby being born with birth defects. This is known as congenital varicella syndrome (CVS). Babies may have a low birth weight, scars and problems with their limbs, eyes and brain. Chickenpox can also cause miscarriage or stillbirth.

These diseases are now rare in B.C. because of routine childhood immunization programs.

Mature minor consent

It is recommended that parents or guardians and their children discuss consent for immunization. Children under the age of 19, who are able to understand the benefits and possible reactions for each vaccine and the risk of not getting immunized, can legally consent to or refuse immunizations. For

more information on mature minor consent see [HealthLinkBC File #119 The Infants Act, Mature Minor Consent and Immunization](#).

For more information

For more information on measles, mumps, rubella and varicella, see the following HealthLinkBC Files:

- [HealthLinkBC File #14a Measles, Mumps, Rubella \(MMR\) Vaccine](#)
- [HealthLinkBC File #14b Measles](#)

- [HealthLinkBC File #14c Mumps](#)
- [HealthLinkBC File #14d Rubella](#)
- [HealthLinkBC File #44a Facts About Chickenpox](#)
- [HealthLinkBC File #44b Chickenpox \(Varicella\) Vaccine](#)



BC Centre for Disease Control
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