

# Measles, Mumps, Rubella and Varicella (MMRV) Vaccine

## Public Health – Factsheet

Immunization has saved more lives in Canada in the last 50 years than any other medical intervention<sup>1</sup>. Vaccines help your immune system to recognize and fight bacteria and viruses that cause disease.

### What is the MMRV vaccine?

The MMRV vaccine protects against four different diseases: measles, mumps, rubella and varicella. All four of these diseases can cause serious infection and can sometimes be fatal.

1. **Measles** causes a rash, high fever, red eyes, runny nose and cough. Some people may also get a middle ear infection or pneumonia. Although rare, measles can cause swelling of the brain that can lead to seizures, hearing loss, mental disability or even death.
2. **Mumps** causes fever, headache and swollen glands around the jaw. In adults and older children, mumps can cause painful swelling in the testicles or ovaries. In rare cases, men may become sterile (unable to have children). Mumps can also cause hearing loss, in rare cases.
3. **Rubella**, also called German measles, causes a rash, mild fever and swelling of the glands around the neck. Some people may have painful and swollen joints. Swelling of the brain and bleeding disorders are rare complications. Rubella can be especially dangerous for pregnant women. If a woman gets rubella in the first 20 weeks of her pregnancy, she may have a miscarriage or a baby born with a serious disability.
4. **Varicella**, also called chickenpox, causes an itchy rash with fluid filled blisters. Other symptoms include mild fever, headache, joint and muscle aches. Most people who get varicella recover completely, but, in more severe cases, chickenpox can lead to serious infections of the skin, joints, lungs (pneumonia), blood, bones or even heart. In rare cases, it may also cause swelling of the brain (encephalitis). Newborn babies, adults and those with weakened immune systems are especially at risk.

The MMRV vaccine contains weakened forms of the measles, mumps, rubella and varicella viruses. It is approved by Health Canada and is provided at no charge by Manitoba Health, Healthy Living and Seniors as part of Manitoba's routine immunization schedule and to those with high risk medical conditions.

### How are these diseases spread?

Measles, mumps, rubella and varicella viruses are easily spread through the air by sneezing and coughing. The viruses can also be spread by direct contact with saliva, and children may become infected by sharing soothers, bottles or toys that have been in the mouths of other children. The varicella virus can also be spread through contact with the fluid from chickenpox blisters.

### Why should my child get the MMRV vaccine?

Immunization is the best way to protect your child against measles, mumps, rubella and varicella.

It is much safer for your child to get the MMRV vaccine than it is for your child to get any of these diseases. When your child is immunized, you also help protect others because someone who is immunized is less likely to spread infection.

### Who should get the MMRV vaccine?

MMRV is approved for use in children between 12 months and 12 years of age. In Manitoba, those born on or after January 1, 2008 should receive 2 doses of the MMRV vaccine. As part of Manitoba's routine immunization schedule the doses are given at 12 months of age and at 4-6 years of age.

Both doses can be given using the combined MMRV vaccine or as individual MMR and varicella vaccines.

<sup>1</sup> Public Health Agency of Canada

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Individuals 12 years of age and older who require immunization against MMR and/or varicella should be immunized using separate MMR and varicella vaccines.

## Who should NOT get the MMRV vaccine?

Your child should not receive the MMRV vaccine if he or she has had a severe allergic reaction to a previous dose of MMR or varicella vaccines, or any other component of the vaccine (ex. neomycin and gelatin).

Speak to a public health nurse, doctor or nurse practitioner before getting this vaccine if your child:

- Has a weakened immune system due to disease or medical treatment;
- Had a blood transfusion or received other blood products within the past year;
- Is pregnant;
- Had a drop in platelets, the blood cells that help prevent bleeding, after getting a previous dose of MMR vaccine without another cause being identified;
- Has a history of convulsions (or family history);
- Has had another live vaccine in the last month; or
- Has a high fever or a serious infection more severe than a cold.

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.

## Possible side effects of the MMRV vaccine:

Vaccines are very safe. Getting the MMRV vaccine is much safer than getting measles, mumps, rubella or varicella. Most people who get the MMRV vaccine do not have any serious problems with it.

Common reactions to the vaccine include soreness, redness and swelling at the site where the vaccine was given. A mild fever, rash and swelling in the cheeks or neck may occur about 1 to 2 weeks after administration of the vaccine. The rash can appear blotchy-red and/or there can be spots that look like blisters. The spread of chickenpox through the fluid in these blisters is possible, but rare. It will disappear without treatment. Fever over 38°C is common in

young children. Rarely, a seizure may occur as a result of a high fever.

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 is about 1 in 1,000, which is much higher than from the vaccine. The risks of these serious reactions following MMRV vaccine have not been established but are expected to be similar to the risks reported for MMR vaccines.

Acetaminophen (Tylenol® or Tempra®) can be given for fever or soreness.

Though uncommon, some children may have swelling of the glands in the head and neck, tiredness, fussiness, decreased appetite or an upset stomach. These are mild reactions and usually last one to two days.

**ASA (Aspirin®) should NEVER be given to children because it can cause a severe liver and brain disease called Reye's Syndrome.**

It is important to stay in the clinic for 15 minutes after getting any vaccine because there is a rare possibility of a severe allergic reaction. This can include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this happens after you leave the clinic, **call 911 or go to the nearest emergency department for immediate treatment.**

**Report any serious or unexpected side-effects to a public health nurse or doctor.**

## Your record of protection

Make sure your doctor or public health nurse updates your child's immunization record card after getting them immunized. Keep the card in a safe place!

Information about the immunizations your children receive may be recorded in the Manitoba Immunization Registry. This computerized database allows your child's doctor or public health nurse to find out what immunizations your child has had or needs to have. Information collected in the Registry may be used to produce immunization records, or

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notify you or your doctor if your child has missed a particular immunization. Manitoba Health, Healthy Living and Seniors may use the information to monitor how well different vaccines work in preventing disease. If you need information on the immunizations that your child has received, contact your doctor, local public health unit or nursing station.

## **For more information on the MMRV vaccine:**

Talk to your doctor, public health nurse or nurse practitioner.

Call Health Links-Info Santé in Winnipeg at 204-788-8200; toll-free elsewhere in Manitoba 1-888-315-9257.

Or visit:

### **Manitoba Public Health website**

[www.gov.mb.ca/health/publichealth/index.html](http://www.gov.mb.ca/health/publichealth/index.html)

### **Public Health Agency of Canada website**

[www.phac-aspc.gc.ca/im/index-eng.php](http://www.phac-aspc.gc.ca/im/index-eng.php)