

## 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. It is free as part of your child's routine immunizations. Contact your health care provider to make an appointment.

### Who should get the vaccine?

The MMRV vaccine is given as one dose to kindergarten age children starting at age 4. Most of these children will have received one dose each of the measles, mumps and rubella (MMR) vaccine and the varicella vaccine on or after their first 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. All four diseases are serious and sometimes fatal. 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 one 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 one child in 30,000). Encephalitis, an inflammation of the brain (about one child in one million), can also occur. Encephalitis is much more common from measles, about one in 1,000, than the vaccine.

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, please visit [HealthLinkBC File #84 Reye Syndrome](#).

It is important to stay in the clinic for 15 minutes after getting any vaccine. There is an extremely rare possibility of a life-threatening allergic reaction called anaphylaxis. This happens in less than one in a million people who get the vaccine. Symptoms 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.

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
- Received a blood transfusion or 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

The MMRV vaccine should not be given to people who are pregnant or planning to become pregnant. Pregnancy should be avoided for one month after getting the vaccine.

There is no need to delay getting immunized because of a cold or other mild illness. 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 the air or touch a surface contaminated with the viruses. 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 chickenpox or shingles blisters.

**Measles** causes fever, a 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 one person in 1,000, include encephalitis. This can lead to seizures, deafness or permanent brain damage. About one 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 one 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 one in 20,000 people with mumps. Adults and teens with mumps can have painful swelling of the testicles (about one in 4 cases) or ovaries (about one in 20 cases).

**Rubella** can cause serious complications and birth defects in an unborn baby. These defects include 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 people 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, people who are pregnant 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 one 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. 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 please visit [HealthLinkBC File #119 The Infants Act, Mature Minor Consent and Immunization](#).

### **For more information**

For more information on measles, mumps, rubella and varicella, please visit 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](#)

