

## Measles, mumps, rubella (MMR) 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 MMR vaccine?

The MMR vaccine protects against:

- Measles
- Mumps
- Rubella

The MMR vaccine contains weakened forms of the measles, mumps and rubella viruses and is approved by Health Canada. It is free as part of your child's routine immunizations. You can get a measles containing vaccine from [public health units or community health centres](#), nursing stations, some doctor's offices, [travel health clinics](#) and [pharmacies](#) (for people 4 years of age and older).

Given the current measles situation, try to phone ahead to assure that they have vaccine in stock and to find out if you need an appointment.

### Who should get the MMR vaccine?

The MMR vaccine is given to children as a series of 2 doses. The first dose is given at 12 months of age and the second dose at 4 to 6 years of age. For children who also need protection against chickenpox (varicella), the

second dose of vaccine can be given as the combined Measles, Mumps, Rubella and Varicella (MMRV) vaccine.

For more information about the MMRV vaccine, see [HealthLinkBC File #14e Measles, mumps, rubella, and varicella \(MMRV\) vaccine](#).

The vaccine is given at the same time as other childhood immunizations.

MMR vaccine	Child's age at immunization
1 <sup>st</sup> dose	12 months
2 <sup>nd</sup> dose	4 to 6 years

The MMR vaccine is also provided free of charge to the following people:

- Infants aged 6 to 11 months who will be travelling to areas with measles outbreaks or to countries where measles is of concern, or who are known to have been in contact with someone with measles. These children will need 2 more doses of the vaccine, at 12 months and 4 to 6 years of age.
- Women of child-bearing age who are not immune to rubella
- Older children and adults who have not been immunized or do not have evidence of immunity to measles, mumps and rubella

It is recommended that people born in 1970 or later (1957 for health care workers) get 2 doses of the vaccine. Most people born before 1970 will have had measles and mumps disease when they were younger (before vaccination was widely available) and will be protected from natural infection. If you were born before 1970 and know you did not have

measles disease and have not been immunized, you can get 1 dose of the vaccine. This is especially important for travellers.

It is important to keep a record of all immunizations received.

### **What are the benefits of the MMR vaccine?**

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

When you get 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 or rubella.

Common reactions to the vaccine may include soreness, redness and swelling where the vaccine was given. Fever, headache, muscle soreness, nausea, a rash that looks like measles, and swelling of glands in the cheeks or neck can occur about 7 to 12 days after getting the vaccine. Temporary joint pain may occur in teenage and adult women.

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.

\*Ibuprofen should not be given to children under 6 months of age without first speaking to your health care provider.

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

Rarely, more serious reactions can include seizures caused by fever (about 1 child in 3,000), a temporary drop in the blood cells that help prevent bleeding (about 1 person in 30,000), and encephalitis, an inflammation of

the brain (about 1 person in 1 million). The possibility of getting encephalitis from measles is about 1 in 1,000 which is much higher than from the vaccine.

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 1 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 MMR vaccine?**

Speak with your health care provider if you or your child:

- Have had a life-threatening reaction to a previous dose of measles, mumps or rubella vaccine, or any component of the vaccine including gelatin or neomycin
- Have an immune system weakened by disease or medical treatment
- Have 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
- Have had a blood transfusion or received other blood products within the past 12 months
- Are pregnant or planning to become pregnant. Women should avoid becoming pregnant for 1 month after getting the MMR 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 and rubella?

Measles, mumps and rubella 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 this 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.

**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 such as encephalitis, which is a swelling of the brain, can occur in 1 in 1,000 people. Encephalitis can lead to seizures, deafness or permanent brain damage. About 1 person in 3,000 with measles can die from complications.

**Mumps** causes fever, headache and swelling of the salivary glands and cheeks. More serious complications include encephalitis, which is swelling of the brain. 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.

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 #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  
Provincial Health Services Authority

---

For more HealthLinkBC File topics, visit [www.HealthLinkBC.ca/more/resources/healthlink-bc-files](http://www.HealthLinkBC.ca/more/resources/healthlink-bc-files) or your local public health unit. For non-emergency health information and advice in B.C. visit [www.HealthLinkBC.ca](http://www.HealthLinkBC.ca) or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.