

# Measles, Mumps, and Rubella: Diseases and Vaccines

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## What is measles?

- Measles is a severe, highly contagious disease caused by a virus. Measles can affect both children and adults.
- It is also called red measles or rubeola.
- It causes a rash, high fever, cough, runny nose, and watery eyes lasting 1 to 2 weeks.
- It may lead to ear infections and pneumonia (lung infection).
- It may lead to encephalitis (inflammation of the brain) which happens in about 1 case in 1,000 people and may cause seizures or deafness.
- It can be a life-threatening disease.
- **It is preventable by getting a vaccine.**

## What is mumps?

- Mumps is a severe, highly contagious disease caused by a virus. Mumps can affect both children and adults.
- It causes fever, headache, and inflammation of the salivary glands. These glands are in front of and below each ear. This causes the cheeks to swell.
- It may cause a mild inflammation of the covering of the brain and spinal cord (meningitis).
- It may also cause encephalitis (inflammation of the brain).
- It can cause deafness.
- It may cause painful inflammation, swelling of the testicles, or abdominal (belly) pain.
- **It is preventable by getting a vaccine.**

## **What is rubella?**

- Rubella is a severe, highly contagious disease caused by a virus. Rubella can affect both children and adults.
- Rubella may also be called German measles.
- It can cause encephalitis (inflammation of the brain).
- It causes a low fever, rash, and swelling of nodes in the neck for about 3 days.
- It may cause swelling and aching of the joints for about 1-2 weeks.
- Rubella can cause arthritis in up to 1 of every 2 teenage and adult women who get the disease.
- It can cause deformities in an unborn child (if the mother has rubella during pregnancy).
- **It is preventable by getting a vaccine.**

## **What is the measles, mumps, and rubella (MMR) vaccine?**

- Getting immunized with MMR vaccine is the best way to prevent measles, mumps, and rubella.
- MMR vaccine has a tiny amount of live virus that is specially treated so that it won't cause the disease in healthy people.
- MMR vaccine is 3 vaccines combined into a single shot.
- The vaccine is injected under the skin.
- The vaccine is very effective in preventing measles, mumps, and rubella.
- Most people (9 out of 10) who get the vaccine will have full protection, probably for life.
- The remaining 1 out of 10 who are not fully protected after getting the vaccine may get the disease if they are exposed to it, but it will be milder.
- Most children who get a booster (followup dose of the vaccine) between 18 months and 6 years of age will be protected.

## **Who should get the MMR vaccine?**

- Anyone born in 1970 or later should get 2 doses of MMR vaccine. Each dose must be documented, meaning that a record of each received vaccine is on file with Public Health or a health care provider.
- New mothers may need this vaccine. Ask your health care provider for more info.
- It is safe for breastfeeding mothers to receive MMR vaccine.
- Anyone who may need a booster of the vaccine during an outbreak of measles, mumps, or rubella.
- Any child aged 6–11 months who is travelling to a place where they could come into contact with measles. The child should then get 2 more doses of the vaccine after 1 year of age.

## **Caution**

Check with a health care provider before you get this vaccine if:

- › Your immune system is weak because of disease or certain medications.
- › You have received immunoglobulin (IG) or any other injection or transfusion within the last 3–11 months. You may be told it's best to wait to have the MMR vaccine.

## **Who should NOT get the MMR vaccine?**

- Babies younger than 1 year old (except children 6–11 months of age travelling to places where they could come into contact with measles).
- People who may have immune system problems due to a medical condition or medications.
- Anyone who had a live vaccine within the last 4 weeks.
- People who have had a serious allergic reaction to a previous dose, or any part of, MMR vaccine.
- People who are sick or have a fever (temperature of 39.5° C/103° F or higher).
- This vaccine is not recommended for pregnant women. After getting MMR vaccine, a woman should wait at least 1 month before getting pregnant.
- MMR and varicella vaccines can be given at the same time. If they are not given on the same day, you should wait 4 weeks before getting the other vaccine.

## **What happens after getting the MMR vaccine?**

- You and/or your child should stay in the clinic for at least 15 minutes in case of any reactions. As with any vaccine, there is a slight chance that there could be a more serious reaction.

## **What are the possible side effects of MMR vaccine?**

- Common side effects:
  - › Redness, swelling and pain at the injection site.
  - › A fever, rash, sore throat, and headache. These symptoms may happen about 5 to 12 days after getting the vaccine and may last for 1 to 2 days.
  - › Rarely, pain and/or swelling of the testicle(s) may happen.

Make sure you have acetaminophen or ibuprofen at home in case you or your child has a fever. Follow the instructions on the container. These medications should not be taken if you have certain medical conditions. Talk to your health care provider about your medical history before using either of these medications.

## **What are the possible risks of MMR vaccine?**

- Some people faint before, during, or after immunization. If you tend to faint with immunizations, tell your health care provider before being immunized. Sitting or lying down for 15 minutes after immunization can help prevent fainting, or injuries caused by a fall. Tell your health care provider if you feel dizzy or have vision changes or ringing in the ears.
- About 5–15% of people with a higher risk of a reaction to the vaccine who get MMR vaccine will get a low-grade fever and/or a mild rash 7–12 days after vaccination. People who have this reaction are not infectious.

## **Call your health care provider if:**

- › You or your child have a fever for more than 24 hours.
- › You or your child have a temperature of 39.5° C/103° F or higher.
- › Your or your child's fever does not get better after taking acetaminophen or ibuprofen.
- › You or your child have seizures.
- › You or your child have other symptoms.

**If you think the person who got the vaccine is having a severe allergic reaction (anaphylaxis), call 911 right away.**

## **What if there is a severe allergic reaction?**

Severe allergic reactions to MMR vaccine are rare. If needed, your child's health care provider can give your child epinephrine ("epi pen") and will then call 911. Symptoms of a severe allergic reaction (anaphylaxis):

- › itchy skin or hives
- › flushed skin
- › sneezing
- › trouble breathing
- › stuffy nose
- › cramps or vomiting (throwing up)
- › watery eyes
- › a fast heartbeat
- › coughing or wheezing
- › dizziness or weakness
- › swelling of the face and throat

Symptoms usually start a few minutes after immunization, but may start up to a few hours after immunization.

## **Questions?**

If you have any questions about measles, mumps, or rubella, or MMR vaccine, please call Public Health (see list of offices here: [www.nshealth.ca/public-health-offices](http://www.nshealth.ca/public-health-offices)), or your health care provider.

**For more info on immunization, including the benefits and risks, visit:**

### **Immunize Canada**

- › [www.immunize.ca/diseases-vaccines](http://www.immunize.ca/diseases-vaccines)
- › [www.immunize.ca/parents](http://www.immunize.ca/parents)

### **The Public Health Agency of Canada**

- › [www.phac-aspc.gc.ca](http://www.phac-aspc.gc.ca)

### **The Canadian Paediatric Society**

- › [www.cps.ca](http://www.cps.ca)

### **Immunization Action Coalition**

- › [www.immunize.org/handouts/discussing-vaccines-parents.asp](http://www.immunize.org/handouts/discussing-vaccines-parents.asp)

### **811**

- › <https://811.novascotia.ca>

## References

### The Canadian Immunization Guide

- › [www.canada.ca/en/public-health/services/canadian-immunization-guide.html](http://www.canada.ca/en/public-health/services/canadian-immunization-guide.html)
- › [www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-12-measles-vaccine.html](http://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-12-measles-vaccine.html)
- › [www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-14-mumps-vaccine.html](http://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-14-mumps-vaccine.html)
- › [www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-20-rubella-vaccine.html](http://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-20-rubella-vaccine.html)

### Food Allergy Canada

- › <https://foodallergycanada.ca/know-signs-symptoms-anaphylaxis/>

This pamphlet is just a guide. If you have questions, please talk to your health care provider. We are here to help you.

#### Looking for more health information?

Find this pamphlet and all our patient resources here: <http://library.nshealth.ca/PatientGuides>

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to <http://library.novascotia.ca>

Connect with a registered nurse in Nova Scotia any time: call 811 or visit <https://811.novascotia.ca>

Learn about other programs and services in your community: call 211 or visit <http://ns.211.ca>

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[www.nshealth.ca](http://www.nshealth.ca)

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