

# Measles, Mumps and Rubella (MMR) Vaccine



Region of Waterloo  
PUBLIC HEALTH AND  
EMERGENCY SERVICES

## What is Measles?

Measles is a viral infection that lasts for one to two weeks and causes high fever, cough, rash, runny nose and watery eyes. Complications include:

- ear infections or pneumonia (in one of every 10 people)
- encephalitis—an infection of the brain that may cause brain damage (in one of 1,000 people)
- death (in one of about 3,000 cases)
- subacute sclerosing panencephalitis (SSPE) (a very rare fatal brain infection)
- miscarriage or premature birth

Measles spreads very easily from person to person through coughing, sneezing and even talking. Before measles vaccine was used widely, almost all children got measles. Now, because of the routine use of vaccine, very few children get measles in Canada and SSPE has almost completely disappeared.

## What is Mumps?

Mumps is a viral infection that can cause fever, headaches and swelling of the salivary glands in the cheeks and jaw. Complications include:

- meningitis—swelling of the lining covering the brain and spinal cord
- deafness
- painful, swollen testicles that may cause sterility (in one in four teenage males)
- infection of the ovaries (in one of 20 women)
- miscarriage if infection occurs during the first three months of pregnancy

Mumps is spread through coughing, sneezing or simply talking with an infected person. It can also be spread through contact with the saliva of an infected person.

## What is Rubella (German Measles)?

Rubella is a viral infection that can be very dangerous in pregnant women. If infection occurs in the early part of a pregnancy, it is very likely that the baby will die or be severely disabled. The most common complications are blindness, deafness, intellectual disability and heart defects.

Rubella is usually a mild illness in children; half of the infections with rubella occur without a rash. The disease can be more severe in older children and adults, especially women. Rubella may cause fever, sore throat, swollen glands in the neck and a rash on the face and neck. Temporary aches, pains and swelling of the joints are common in adolescents and adults, especially females. Rubella can be followed by chronic arthritis. Rubella can also cause temporary blood clotting problems and encephalitis (swelling of the brain).

Rubella spreads by contact with an infected person through coughing, sneezing or talking to them. It can also be spread through contact with the saliva of an infected person.

## Who should get the vaccine?

Adults born before 1970 are generally presumed to have acquired natural immunity to measles. Adults born in 1970 or later should receive one dose of MMR.

A second dose of MMR is recommended for all children, young adults (ages 18–25 years), post-secondary students, health care workers, those who plan to travel internationally and those who received killed measles vaccine (1967-1970).

Consider one dose of MMR for infants over six months of age if travelling to a high risk area.

\*\*Infants who get one dose of measles vaccine before their first birthday, should receive an additional two doses after their first birthday (one dose at 12–15 months of age and another dose at least 28 days later.\*\*

## MMR vaccine

The MMR vaccine is a three-in-one vaccine. After two doses 99 per cent of individuals are protected against measles, 95 per cent against mumps and about 98 per cent of people against rubella. Protection from measles, mumps and rubella after getting the two doses of vaccine is most likely life-long. Vaccination also makes these diseases milder for those who may become infected.

### Who should NOT get the vaccine?

- anyone who is ill with a fever or infection worse than a cold
- anyone who has had a severe allergic reaction to a prior dose of this vaccine
- anyone taking medication that lowers the body's ability to fight infections
- pregnant women (**avoid pregnancy for one month following immunization**)
- anyone who is allergic to an antibiotic called neomycin
- anyone who received a gamma globulin shot within the past three to 12 months, (depending on the dose and method of administration)
- anyone who has an allergy to any component of the vaccine including gelatin (MMR II), egg or neomycin

## Side effects

MMR vaccine may cause a mild fever, rash or swelling of the glands in the neck in one out of seven children about six to 10 days after getting the shot and lasting for one to two days. Up to one in four teenage girls and adult women may get painful swelling of some joints one to three weeks after vaccination. The joint pain and swelling usually lasts only a few days. Very rarely, chronic arthritis may occur.

There is no risk of a pregnant woman or anyone else catching measles, mumps or rubella from a child who has been vaccinated recently. It is safe to give this vaccine to women who are breastfeeding.

### When should I seek medical attention?

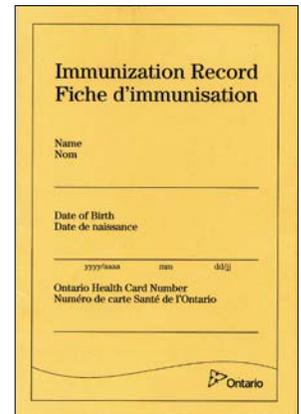
Severe reactions are rare. If you develop hives, swelling of the face or mouth, trouble breathing, serious drowsiness or other serious problems seek immediate medical attention.

### Your record of protection

After any immunization, ensure your personal immunization record or "yellow card" is updated. Keep it in a safe place.

### Questions?

Talk to your health care provider or contact Public Health at 519-575-4400.



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<http://www.health.gov.on.ca/en/public/publications/immune/mmr.aspx>

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