Measles, Mumps and Rubella (MMR) Vaccine

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Vaccine Brands: MMR® II, Priorix®

Measles (rubeola, red measles)
The measles virus causes a fever, rash, cough, red eyes and a runny nose. The red rash starts on the face and spreads to the rest of the body. Measles complications include ear infections, pneumonia, miscarriage, an infection of the brain causing brain damage, and death. It is easily spread when an infected person coughs or sneezes.

Mumps
The mumps virus causes a fever, headache and salivary gland swelling in the cheeks and jaw (parotitis). Complications include meningitis (infection in the lining of the brain), painful swelling of the testicles or the ovaries, deafness, or miscarriage. It is spread by contact with saliva of an infected person (e.g. sharing drinks, food or kissing) or their infected droplets through coughing, sneezing or even talking.

Rubella (German measles)
The rubella virus causes a fever, sore throat, swollen lymph glands in the neck and a rash on the face and neck. The symptoms can be absent or mild in children. Adults may have a headache, weakness, runny nose, red eyes and, rarely, swelling of the joints. Rubella can also cause encephalitis (swelling of the brain). Rubella is most dangerous in early pregnancy as it can cause miscarriage, stillbirth or severe birth defects such as cataracts, deafness, heart defects, and mental retardation known as congenital rubella syndrome. Rubella is spread through coughing or sneezing or from contact with the saliva of an infected person.

Vaccine Protection
The MMR vaccine is made up of weakened, live viruses of measles, mumps, and rubella. One dose provides about 85% protection and two doses over 95% protection.

Recommendations for Use
- A first dose of MMR vaccine is part of routine childhood immunization on or after the child’s first birthday.
- Before 2011, a second dose of MMR vaccine was given routinely at 18 months of age.
- Since 2011, a second dose of MMRV vaccine (with chickenpox) is given to children, four to six years of age.
- MMR vaccine is safe for women who are breastfeeding.
- All persons born in 1970 or later should receive two doses of MMR, at least 28 days apart.
- Susceptible health care workers, travellers, post-secondary students and military personnel should receive MMR vaccine regardless of the birth year.
- If travelling to areas where measles is circulating widely, infants 6 to 12 months of age can receive one dose of MMR vaccine. Two additional doses of measles containing vaccine are required starting on or after the first birthday.
Persons who are not immune and have been exposed to someone who is contagious with measles can receive the vaccine within 72 hours to prevent infection.

**Vaccine Side Effects and Risks**
The most common side effects of the vaccine are redness, swelling and pain where the needle was given. Six to 23 days after vaccination, 5 out of 100 children will feel unwell, get a fever and may develop a measles-like rash which lasts up to 3 days. Some can develop temporary swelling of the glands in the neck, joint pain or muscle aches.

On rare occasions, Immune Thrombocytopenic Purpura (ITP) can occur within 6 weeks after vaccination; most children recover completely in three months without serious complications. Encephalitis has been reported in approximately 1 per million doses, much lower than that observed with natural measles disease (1 per 1,000 cases). Risk of allergic reactions following immunization such as trouble breathing, rash, swelling in the throat and face may occur but are very rare (1 per 1 million doses) and can be treated.

You should report any side effects or severe vaccine reactions to your health care provider.

**People who should not get the vaccine**
You should not get the vaccine if:
- you have had a severe allergy or neurological reaction to a previous dose of a vaccine containing varicella. Signs of severe allergy include hives, swelling of the mouth and throat, wheezing, chest tightness, difficulty breathing, difficulty swallowing, hypotension and shock.
- you have had an allergic reaction to any part of the vaccines including gelatin or an antibiotic called neomycin sulphate
- you have a severely weakened immune system (such as HIV, cancer or taking medications that weaken the immune system)
- you have active untreated tuberculosis
- you are pregnant

**People for whom the vaccine may be delayed**
- you have an acute febrile illness more serious than a cold
- you think you may be pregnant, or are trying to become pregnant. Women should not get pregnant for one month after receiving the MMR vaccine
- you have received a blood product (e.g., blood or plasma transfusion) within the last 11 months
- you have an unstable neurologic disorder
- you have recently received another live vaccine (e.g., MMRV, chickenpox)

**More information**
- See your health care provider for more information or if you get a serious side effect from the vaccine
- Call our Immunization Information Line at 416-392-1250