

Measles, Mumps, and Rubella (MMR) Vaccine

Vaccines are the best way to protect against very serious infections. The Canadian Paediatric Society and the National Advisory Committee on Immunization strongly recommends routine immunization.

The MMR vaccine is a three-in-one needle that protects against measles, mumps, and rubella (German measles). It should be given to children soon after their first birthday and again around the time they begin school, i.e. 18 months or 4 to 6 years of age. Vaccination against measles, mumps, and rubella is required by law for all children attending school in Ontario (unless exempted).

This vaccine should also be given to adults who are not protected against measles, mumps, or rubella. Pregnant women, who have been told that they are not protected against rubella, should receive MMR vaccine as soon as they are no longer pregnant.

Measles

Measles is a serious infection. It causes high fever, cough, rash, runny nose, and watery eyes. Measles lasts for one to two weeks. It can be complicated by ear infections or pneumonia in one out of every ten children with measles. Measles can also be complicated by encephalitis, an infection of the brain, in about 1 out of every 1,000 children with measles. This may cause brain damage and mental retardation. Measles causes death in 1 in about 3,000 cases. In very rare cases, measles is complicated by a disease called SSPE (subacute sclerosing panencephalitis), a very severe and always-fatal brain infection. Measles can also make a pregnant woman have a miscarriage or give birth prematurely.

Measles spreads very easily from person to person. It is passed from an infected person to others 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. SSPE has almost disappeared.

Mumps

Mumps can cause fever, headaches, and swelling of the cheeks and jaw. The swelling is caused by an infection of the salivary glands. Mumps can cause meningitis, an infection of the fluid and lining covering the brain and spinal cord. About one in every ten people with mumps gets meningitis. Fortunately, mumps meningitis does not usually cause permanent damage. Mumps can cause deafness in some persons. Mumps can cause very painful, swollen testicles in about one out of four teenage boys or adult men. This may rarely cause sterility. Mumps can cause a painful infection of the ovaries in 1 out of 20 women. Mumps infection during the first three

... over

Kingston
221 Portsmouth Avenue
Kingston, ON K7M 1V5
Tel: 613-549-1232
1-800-267-7875
Fax: 613-549-7896

Cloyne
P.O. Box 59
14209 Highway 41
Cloyne, ON K0H 1K0
Tel: 613-336-8989
Fax: 613-336-0522

Napanee
41 Dundas Street
Napanee, ON
K7R 1Z5
Tel: 613-354-3357
Fax: 354-6267

Sharbot Lake
P.O. Box 149
1130 Elizabeth Street
Sharbot Lake, ON K0H 2P0
Tel: 613-279-2151
Fax: 613-279-3997

months of pregnancy may increase the risk of miscarriage. People can get mumps from an infected person coughing or sneezing around them or simply talking to them. It can also be spread through contact with the saliva of an infected person.

Rubella (German Measles)

Rubella is very dangerous in pregnant women. If a woman gets rubella in the early part of a pregnancy, it is very likely that her baby will die or be severely handicapped. The most common handicaps are blindness, deafness, mental retardation, and heart defects.

Rubella is usually a mild illness in children; up to 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 and pains and swelling of the joints are common in adolescents and adults, especially females. Rubella can be followed by chronic arthritis. It 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 by contact with the saliva of infected people.

How well does MMR vaccine protect against measles, mumps, and rubella?

The vaccine protects about 99 percent of those who get both needles against measles. It protects 95 percent of people against mumps and about 98 percent of people against rubella. Protection from measles, mumps, and rubella after getting the vaccine is probably lifelong. Vaccination also makes these diseases milder for those who may catch them.

Is the MMR vaccine safe?

Yes. Most children will have no side effects. MMR vaccine can cause a rash or fever in some children 7 to 12 days after the needle is given and may last for up to three days. Occasionally, a high fever can cause a convulsion. The convulsion comes from the high fever caused by the vaccine rather than the vaccine itself. This does not make the child any more likely to get epilepsy, brain damage or any other nerve problems. Convulsions caused by high fever are more likely to occur in children who have had convulsions before or whose parents, brothers or sisters have had convulsions. On the whole, the benefits of the vaccine are much greater than the risks.

The mumps part of the vaccine may cause fever and swelling of the glands in the neck. Meningitis (an infection of the fluid and lining covering the brain and spinal cord) may occur very rarely, in 1 in 800,000 people who get the vaccine. The meningitis caused by mumps vaccine is mild, and permanent brain damage does not occur.

The rubella part of the vaccine may cause a mild fever, rash or swelling of the glands in the neck in one out of seven children. This usually happens 6 to 10 days after getting the shot and lasts for 1 to 2 days. Less than 1 in 200 children may develop swelling and pain in some joints after the vaccine. Up to one in four teenage girls and adult women may get painful swelling of some joints within one to three weeks after vaccination. The joint pain and swelling usually lasts only a few days. Very rarely, chronic arthritis may occur.

Mild, temporary blood clotting problems have been reported during the month following immunization with MMR vaccine. This condition occurs rarely and does not result in long-term problems.

There is no risk of a pregnant women 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. On the whole, the benefits of the vaccine are much greater than the risks.

You should always discuss the benefits and risks of any vaccine with your doctor.

Who should NOT have MMR vaccine?

- Anyone who is ill with a fever or infection worse than a cold.
- Anyone who has had a severe allergic reaction (called anaphylaxis) to a prior dose of this vaccine.
- Anyone with a disease that lowers immunity (the body's ability to fight infections).
- Anyone taking medication that lowers the body's ability to fight infections.
- Pregnant women: If a woman gets the MMR vaccine and then discovers she is pregnant, she should call her doctor right away. However, the risk of damage to the fetus in this type of situation is small. Also, women of childbearing age should be advised to avoid pregnancy for one month following immunization with MMR vaccine.
- Anyone who is allergic to an antibiotic called neomycin.
- Anyone who got a gamma globulin shot within the past 3 to 12 months, (depending on the dose and method of administration).

If you think that you or your child is in any of these groups, please talk to your doctor or call KFL&A Public Health.

The MMR vaccine may be given to people who are allergic to eggs even if they have hives, wheezing, difficulty breathing, or swelling of the face or mouth after eating eggs, as long as they are observed after the vaccine for signs of a reaction.

Who should I talk to if I have any questions?

Talk to your doctor or call KFL&A Public Health for more information.

Your record of protection

After your child receives any immunization, make sure the doctor updates your personal immunization record such as the "Yellow Card". You will need to provide this information to KFL&A Public Health when your child enters school and as they get additional immunizations. Keep your records in a safe place!

From: Queen's Printer for Ontario – last modified: May 2005
<http://www.health.gov.on.ca/english/public/pub/immun/mmr.html>