

## About the MMR Vaccine

Getting a shot is nobody's idea of a good time, but it beats getting sick. This is especially true for a disease like measles, which can cause a high fever, cough, runny nose, pink eye, and a rash all over the body, and may lead to severe complications like brain swelling, and even death.

Fortunately, there's a way parents can protect their children from getting sick with measles: the MMR vaccine. The vaccine protects against three diseases: measles, mumps, and rubella. The MMR vaccine has a long record of safety and is much safer than getting measles, mumps, or rubella. Two doses of MMR vaccine are about 97% effective at preventing measles; one dose is about 93% effective.

CDC recommends children get two doses of MMR vaccine, starting with the first dose at 12 to 15 months of age, and the second dose at 4 to 6 years of age. Teens and adults should also be up to date on their MMR vaccination. Very few people—about three out of 100—who get two doses of measles vaccine will still get measles if exposed to the virus. However, they are more likely to have a milder illness, and are also less likely to spread the disease to other people.

The MMR vaccine is very safe, and most people who get the vaccine do not have any serious problems with it. Adverse reactions from MMR are rare, but it can have side effects. MMR vaccine might cause a sore arm from the shot, fever, temporary rashes that are not infectious and go away on their own, temporary swelling of the lymph nodes, swelling of glands in the cheeks or neck, or temporary pain and stiffness in the joints. Joint symptoms are usually caused by the rubella component of the vaccine and are most common in teenage or adult women who did not already have immunity to rubella. Fever reactions usually occur 7–12 days after vaccination and generally last 1–2 days. The majority of persons with fever otherwise do not have symptoms.

MMR vaccine has been linked with a very small risk of febrile seizures (spasms or jerking caused by fever) in children. Febrile seizures can happen with any condition that causes a fever, such as a cold, ear infection, or a vaccine. Febrile seizures following MMR are rare and are not associated with any long-term effects.

Extremely rarely, a person may have a serious allergic reaction to MMR vaccine. Anyone who has ever had a life-threatening allergic reaction to the antibiotic neomycin, or any other ingredient in MMR vaccine, should not get the vaccine.

MMR is an attenuated (weakened) live virus vaccine. This means that after injection, the person's immune system fights the weakened viruses, and immunity (the body's protection from the virus) develops.

Some parents worry that vaccines like MMR cause autism. Sometimes, signs of autism appear around the age that the first dose of MMR is given; there may also be signs of autism before a child is old enough to get the first dose of MMR at age 12 months through 15 months. All reputable scientific studies have found there is *no* link between MMR vaccine and autism. Parents also should talk to their child's health care professional immediately about any concerns about their child's development to identify developmental problems and take action to help children reach their full potential.

Cost is not a barrier for a child to receive a vaccination. There is a national program called Vaccines for Children (or VFC), which allows qualified families to get free vaccinations for their children at

participating doctors' offices. You can ask your child's pediatrician if they are a VFC provider or call your state's VFC Program. Learn more about the VFC program at <https://www.cdc.gov/vaccines/programs/vfc/index.html>.