

Immunization Facts for Families

MMR (Measles, Mumps, Rubella)

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The MMR vaccine is routinely recommended for all children starting at 1 year of age. It keeps them healthy by protecting them from three diseases: measles, mumps, and rubella.

The MMR vaccine protects your child from:

- **Measles:** causes high fever, cough, runny nose, red and watery eyes, and rash. Serious complications from measles infections include pneumonia, seizures, encephalitis (swelling of the brain that can lead to deafness and intellectual disability), and death. Measles infection can also cause immune amnesia, which is when past immunity to other diseases is erased, increasing risk for infections they were once protected against.
- **Mumps:** causes fever, headache, muscle aches, tiredness, loss of appetite, and swollen and tender glands under the ears. Sometimes, it causes deafness and organ swelling.
- **Rubella:** causes fever, sore throat, cough, runny nose, rash, headache, eye irritation, joint pain, and swollen lymph nodes.

Separate vaccinations for measles, mumps and rubella are not available in the U.S.

Why should my child get the MMR vaccine?

The MMR vaccine is the best way to protect your child from 3 serious illnesses. Measles is one of the most contagious viruses in the world, and an unvaccinated child who is exposed may need to quarantine and miss school for 21 days. Two doses of MMR vaccine are 97% effective at protecting children from measles.

Getting the MMR vaccine also helps protect your family and community. When enough people are vaccinated, these diseases have a harder time spreading, which helps protect babies and others who are a higher risk of severe illness.

Who should receive the MMR vaccine and when?

The American Academy of Pediatrics (AAP) recommends the MMR vaccine for:

- All children, with the first dose at 1 year of age and a second dose between 4 and 6 years old for full protection.
- If living in or traveling to areas with measles outbreaks, children may get their first dose at 6 through 11 months old, followed by two more doses after they turn 12 months old for full protection.



- All children and adolescents who did not receive the MMR vaccination on schedule can receive 2 MMR doses given at least 4 weeks apart.

The MMR vaccine contains weakened live viruses, but the vaccine can't cause infection. Tell your child's doctor about any health conditions they have before vaccination.

How do measles, mumps, and rubella spread?

Measles is highly contagious and spreads easily through droplets from breathing, coughing, or sneezing, or from touching contaminated surfaces and then touching your eyes, nose, or mouth. Measles can stay in the air or on surfaces for up to 2 hours, so an unvaccinated person can get sick just by entering a room after someone with measles has left. Nine out of 10 people exposed to **measles** will catch it if they are unvaccinated, have not had it before, or have weakened immune systems.

Mumps and rubella spread through saliva or close contact with an infected person. People with **mumps** may have no symptoms but can still spread the virus. People with **rubella** are contagious 7 days before and 7 days after a rash appears. During pregnancy, rubella infection can cause miscarriage, stillbirth, and birth defects.

What are the side effects of the vaccine?

Some children may have soreness or redness where the shot was given, mild fever, or a mild rash. Very rarely, fever may cause a brief seizure, called a febrile seizure. While febrile seizures can be scary, they do not cause long-term harm and are relatively common when children have illnesses associated with fever.



Learn more

If you have questions about vaccines and keeping your child healthy, talk with your pediatrician.

Visit www.healthychildren.org/MMR for more information on MMR vaccines from the AAP.

View and download AAP Immunization Fact Sheets at www.aap.org/IZFactSheets.

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