

# Patient information from BMJ

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## Measles, mumps, and rubella: should my child have the MMR vaccine?

**MMR stands for measles, mumps, and rubella (rubella is also sometimes called German measles). Giving your child the MMR vaccine protects them against these diseases.**

### What are measles, mumps, and rubella?

Measles, mumps, and rubella used to be quite common in childhood. They're much less common now because most children are routinely vaccinated against them.

If you haven't had measles, mumps, or rubella when you were a child, and if you haven't been vaccinated against them, you can get these diseases when you're older.

### Are they serious?

#### Measles

- Measles causes a mild, red rash, a fever, runny nose, and sore eyes.
- It can cause temporary complications, such as convulsions and diarrhea.
- It can lead to other infections, such as ear infections and pneumonia.
- Rarely, measles can cause permanent brain damage and death.

#### Mumps

- Mumps causes swollen and painful glands in the neck, as well as aches, pains, and tiredness.
- Mumps can cause swelling in the brain, which can sometimes make walking difficult and can lead to behavior problems.
- In boys and men mumps can lead to painful swelling of the testicles, which can make it difficult to father a child.
- Mumps has been linked to hearing loss and arthritis.

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- In rare cases mumps can be fatal. This is more common if you get the disease as an adult.

### Rubella

- Rubella causes a rash and swollen glands. But you can have it without having any symptoms.
- Rubella is most harmful to pregnant women. This is because it can cause miscarriage or serious defects in the baby, such as deafness and heart problems.
- Your baby is most likely to be affected if you catch rubella early in your pregnancy (before 11 weeks).

## Why does my child need the MMR vaccine?

The MMR vaccine protects children from getting measles, mumps, and rubella. Vaccinated children have less chance of getting the diseases and of getting complications from them.

Having your child vaccinated may help to eventually put an end to measles, mumps, and rubella. To get rid of a disease altogether, as many people as possible need to be vaccinated. It is thought that 95 in every 100 people in a community need to be vaccinated against a disease for there to be what's called **herd immunity**.

Herd immunity is when people who haven't been vaccinated against a disease are protected from it because most people are vaccinated and can't pass it on. If you or your child are not vaccinated then you increase the chances that the diseases will stay in the community.

## How is the MMR vaccine given?

The MMR vaccine is given in two shots. The first shot is given when your child is between 12 and 15 months old. The second shot is given between the ages of 3 and 6 years.

## Why are two shots needed?

Not everyone responds to the MMR vaccine the first time they have the injection. After the first dose of the MMR vaccine about 5 in 100 children will not be protected against the diseases. But after two doses less than 1 in 100 children are still not protected.

## How well does it work?

The MMR vaccine works very well. Very few children who have this vaccine catch measles, mumps, or rubella.

## Is the MMR vaccine suitable for all children?

Some children should not have the MMR vaccine, or should wait. Check with your doctor if your child:

- is very sick when he or she is due to have the vaccine

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- has HIV/AIDS or another disease that affects his or her immune system
- is being treated with drugs that affect the immune system or has been treated with a blood product in the past three months
- has cancer or is being treated for it
- has had a severe allergic reaction to the antibiotic neomycin.

### Are there side effects?

Your child may get some mild side effects from the vaccine, such as a fever. Some children become irritable, get a skin rash, or get swollen glands. A small number of children have convulsions. Children usually recover quickly from these effects. There's no evidence that the MMR vaccine can cause long-term harm.

### What about the link with autism?

In 1998 a study raised questions about the MMR vaccine and autism. This study was later found to contain many mistakes and was withdrawn by the medical journal that published it.

Many other studies have looked at whether there is a link between the MMR vaccine and autism. None of these studies found any a link.

There is no evidence of any link between the MMR vaccine and autism.

### What will happen if my child does not have the MMR vaccine?

Your child will be more likely to get measles, mumps, and rubella, and the complications they can cause.

### Should I have the MMR vaccine if I'm planning to get pregnant?

If you have ever had measles, mumps, or rubella, or if you have had the vaccines, your unborn baby will not be harmed by that virus if you come into contact with it again.

If you find out that you are not protected against rubella while you are pregnant you need to wait until after you've had your baby to have the MMR vaccine. You can have this a few days after your baby is born. Your doctor can advise you about the best time to do this.

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