Measles

Mumps

## Side effects

**Common**

Side effects tend to be most common after the first dose. These are usually mild and tend to mimic the symptoms of the three diseases from which the vaccines protect, but in a far milder form and with none of the complications.

• About 7 to 11 days after the dose, some children get a very mild measles-like illness, including a rash, fever, loss of appetite and a feeling of being unwell, which lasts for about two or three days.

• About 3 to 4 weeks after the dose, some children develop mumps-like illness, with swelling of the glands in the cheek and neck, lasting for a day or two.

• About 3 weeks after the dose, some children may get a mild rubella-like rash.

**Rare**

In rare cases, a child may get a small rash of bruise-like spots about two weeks after having the MMR vaccine called purpura, which is usually self-limiting. In 1/1000 cases the child may have fits and very rarely, allergic reactions may occur.

It is important to point out that the virus antigens in the vaccine are not infectious and it is not possible for people who have recently had the MMR vaccine to infect others.

| ***The likelihood of serious complications...*** | | |
|---|---|---|
| ***If 7,000 children had...*** | ***the Measles*** | ***the MMR vaccine*** |
| *Pneumonia* | 300 | 0 |
| *Fits* | 35 | 1 |
| *Meningitis* | 20 | Less than 1 |
| *Deaths* | 3 | 0 |
| *Brain Damage* | 1 | 0 |
| *Minor Complications* | 500 | 4 |

*For further advice or information, contact:*

***The Immunisation Clinic***

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*All you wanted to know about the...*

# MMR Vaccine

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Gibraltar Health Authority

## What is the MMR vaccine?

The MMR vaccine protects against three diseases, Measles, Mumps and Rubella (German Measles). It contains weakened forms of the viruses that cause these illnesses and works by triggering the body's natural immune system to produce antibodies against them.

## How serious are these diseases?

**Measles** is a highly infectious viral illness that is most common in children aged 1-4 years old. It spreads very easily, causing cold-like symptoms, red eyes, fever and a red-brown spotty rash. Typically, the child looks ill and feels miserable. Measles can be extremely unpleasant and can lead to complications such as meningitis and pneumonia. In rare cases people have died from measles.

**Measles is a very nasty disease but nowadays quite rare. It is important to keep it that way.**

**Mumps** is a contagious viral infection that causes painful swellings of the parotid salivary glands located behind the cheeks and under the ears, causing a "hamster face" appearance. Other symptoms include headache, joint pain and fever. Serious complications are rare, but include meningitis and in older children, swelling of the testicles and ovaries.

**Rubella** (also known as German measles) is a mild viral infection that causes a reddish pink skin rash, swollen glands and cold-like symptoms. It is not usually troublesome, but can be a serious concern if a pregnant woman catches the infection, which may result in the baby being born with serious birth defects.

## How effective is the MMR vaccine?

It is highly effective. Since its introduction, the incidence of all three diseases has fallen to near zero levels in countries all over the world. In Gibraltar, the MMR vaccine was introduced in 1989 and has virtually eliminated these diseases. In 1964, there were 517 cases of Measles, 126 cases of Mumps and 130 cases of Rubella in one year in Gibraltar. In contrast, between 2001 and 2010, we have had no cases of measles (except for the outbreak of 2008), and only a handful of the other two diseases.

## Was there not a controversy over the MMR vaccine?

Yes. In 1998, a small group of researchers led by one Dr. Andrew Wakefield published an article claiming that the MMR vaccine was linked with autism and enterocolitis, two uncommon diseases. The research was seriously flawed, but the theory was widely taken up and promoted by the media, with the result that many parents decided not to give MMR vaccine to their children.

**After that, huge numbers of national studies were carried out across the world and all of them found the MMR vaccine to be remarkably safe and effective.** Then in 2004, it was revealed that Wakefield had falsified data to create an elaborate fraud, from which he could benefit financially and in 2011, Wakefield was struck off by the Medical Council on charges of dishonesty and abuse of developmentally challenged children.

These events make the MMR vaccine the most researched vaccine in history, from which it emerges with an impeccable record of safely and effectively protecting children. However, damage to its reputation meant that throughout the 2000s several children were not immunised, leading to the 2008 outbreak.

## What happened in 2008?

For several years, doctors had been warning that the reduced take up of MMR vaccination meant that a "pool" of vulnerable children was building up, ripe for an outbreak. This happened in Gibraltar in 2008. Measles suddenly broke out after several disease free years and within three months, 260 persons had fallen ill, every one of whom was unvaccinated or had not completed the course. Measles is an unpleasant disease and 24 persons had to be hospitalised. In the aftermath, many unvaccinated persons came forward to take up the offer of vaccination and now the level of public immunity is improving again.

## I had the measles as a child and it was not that bad, so why bother?

It is true that many people have had mild attacks of measles, but others have also died from it. There are about 7,000 children in Gibraltar. If all of them had measles, 35 would have fits, about 20 would get meningitis and about 3 would die. If 7,000 children had the MMR vaccine about 5 would have mild side effects and nobody would die.

## Can a child's body cope with so many vaccines at one time?

Many parents worry that 3 virus antigens all at once might be too much. The reality is that as soon as a child is born it comes into contact with thousands of bacteria and viruses. The vaccines that babies receive in early childhood are just a drop in the ocean compared with the tens of thousands of bacteria and viruses in the environment that their bodies cope with every day. It has been estimated that a baby's immune system can respond to around 10,000 vaccines at any one time. In practice, researchers have administered 20 vaccines simultaneously without ill effects.

## Is there a benefit in giving the three vaccines separately?

Some of the confusion also comes from Wakefield's infamous belief that giving the three vaccines separately would not cause the autistic enterocolitis disorder. This idea has no scientific basis or supporting evidence. No responsible authority in the world, including the World Health Organisation or any of the (over 100) national programmes world-wide supports giving separate vaccines. It is also a harmful strategy, as it would expose children to increased risks of disease while waiting and some children might miss doses by neglect, without gaining any benefit.

Safety fears were also raised about the single vaccines on sale. For example, some mumps vaccines caused meningitis and some were not even licensed. They are no longer available.

## When is the vaccine given?

The first dose of MMR is given at 15 months and a second (booster) dose is given at pre-school age. It is **important to have both**, as immunity is not complete otherwise.

## Where is the vaccine given?

This vaccine is given by injection into the muscle of the arm or buttock.