

The facts about the

# MMR vaccine

for babies aged  
15 months



**i**mmunisation

the safest way to protect your child

## Introduction

This leaflet contains the facts about the MMR vaccine. If you want to talk over this information please contact your GP, health visitor or practice nurse. You may also find it helpful to visit:

[www.mmrthefacts.nhs.uk](http://www.mmrthefacts.nhs.uk)

[www.immunisation.nhs.uk](http://www.immunisation.nhs.uk)

[www.dhsspsni.gov.uk/phealth](http://www.dhsspsni.gov.uk/phealth)

## What is MMR?

MMR vaccine protects your child against measles (M), mumps (M) and rubella (R; German measles). Your child should receive the MMR at around 15 months and again as a booster before they start school. Since MMR was introduced here in 1988 the number of children catching these diseases has fallen to an all time low.

### **Measles, mumps and rubella can all have serious complications.**

- Measles can cause ear infections, respiratory problems and meningitis/encephalitis (inflammation of the brain). It has a 1 in 2,500 - 5,000 chance of causing death.
- Mumps can cause deafness, usually with partial or complete recovery, and swollen, painful testicles in older boys and men. It was the biggest cause of viral meningitis in children.

- Rubella can also cause inflammation of the brain and can affect blood clotting. In pregnant women it can cause miscarriage or major health problems for their babies such as blindness, deafness, heart problems or brain damage.

It is important to remember that without the MMR vaccine nearly every child will get all three diseases.

### Does MMR have any side effects?

As with all medicines, there are some side effects associated with vaccinations. Most of these are minor and last for only a short time, eg redness and swelling at the injection site.

MMR contains three separate vaccines in one injection. The vaccines work at different times. About a week to 10 days after the MMR immunisation some children become feverish, develop a measles-like rash and go off their food as the measles part of the vaccine starts to work.

Your child may, very rarely, get a rash of small bruise-like spots due to the rubella part of the immunisation about two weeks after MMR. This usually gets better on its own but if you see spots like this, show them to your doctor.



About three weeks after the injection a child might sometimes get a mild form of mumps as the mumps part of MMR kicks in.

Occasionally, children do have a bad reaction to the MMR vaccine. About 1 in 1,000 will have a fit caused by a high temperature due to the measles part of the vaccine (see page 7 for how to treat a fever). There is no evidence that this causes long-term problems. A child who has measles is five times more likely to have a fit as a result of the illness.

Vaccines can also cause allergic reactions. These are very rare, about one case in half a million immunisations. Although they are worrying when they happen, treatment leads to a rapid and full recovery.

Encephalitis (inflammation of the brain) has been reported in about one case in every million immunisations. This is no higher than the chance of any child developing encephalitis without the vaccine. But measles causes encephalitis in 1 in every 5,000 children who get the disease.

Comparisons between the side effects of MMR and the side effects of measles, mumps or rubella show that the vaccine is far safer than the diseases.

Complications	Rate after natural disease	Rate after 1st dose of MMR
Fits (due to high temperature)	1 in 200	1 in 1,000
Meningitis/inflammation of the brain (encephalitis)	1 in 200 to 1 in 5,000	1 in 1,000,000
Conditions affecting blood clotting	1 in 3,000	1 in 24,000
Death (depending on age)	1 in 2,500 to 1 in 5,000	None

## Facts about the MMR vaccine

- MMR vaccine protects children against measles, mumps and rubella.
- In 30 years, more than 500 million doses of MMR have been given in over 100 countries. It has an excellent safety record.
- There is no evidence of any link between MMR and autism or bowel disease.
- Giving the vaccines separately may be harmful. It leaves children open to the risk of catching measles, mumps or rubella.

- Where MMR is available, no countries recommend giving all the vaccines separately.
- In the year before MMR was introduced in the UK, 86,000 children caught measles and 16 died. Due to low vaccine uptake, there have been recent outbreaks in Ireland and Spain, which left several children dead.

### **What happens if my baby gets a high temperature after immunisation?**

Side effects from vaccines are unusual, usually mild and disappear quickly. Some babies may get a raised temperature or fever (over 37.5°C). If your baby's face feels hot to the touch and they look red or flushed they probably have a fever. You could check their temperature with a thermometer.

Fevers are fairly common in babies and children. They often get these with infections. Occasionally a fever can cause a baby to have a fit. Any fever can cause this, whether the fever is due to an infection or a vaccine. So it's important to know what to do if your baby has a fever. Remember, fevers are more likely to be caused by the diseases than by the vaccines.



## How to treat a fever

1. Keep your baby cool by making sure:
  - they don't have too many layers of clothes or blankets on;
  - the room they are in isn't too hot (it shouldn't be cold either, just pleasantly cool).
2. Give them plenty of cool drinks.
3. Give them infant paracetamol or ibuprofen liquid (ask for sugar-free). Read the instructions on the bottle carefully and give your baby the correct dose for their age. You may need to give a second dose four to six hours later.

*Remember, never give medicines containing aspirin to children under 16 years of age.*

### **Call the doctor immediately if your child:**

- has a very high temperature (39°C or above);
- has a fit.

If your child has a fit, lay them on their side in a safe place because their body may twitch or jerk.

## **What about the reports of links between autism and MMR?**

Although autism is increasingly recognised now, the increases were going on long before MMR was introduced. Parents often first notice signs of autism in children after their first birthday. MMR is usually given to children at about this age, but this doesn't mean that MMR causes autism.

Extensive research into the possibility of a link between the MMR vaccine and autism, involving hundreds of thousands of children, has been carried out in Denmark, Sweden, Finland, Canada, the USA and the UK. No link has been found.

Experts from around the world, including the World Health Organization, agree that there is no link between the MMR vaccine and autism.

## **Have children been followed up long enough after MMR to know it's safe?**

In the USA, MMR has been given for over 30 years and over 200 million doses have been used. In Finland, where children have been given two doses of MMR since 1982, reactions reported after MMR were followed up over 14 years. There were no reports of permanent damage due to the vaccine. In fact, MMR has been shown to be a highly effective vaccine with an outstanding safety record.

## Wouldn't it be better for children to have the vaccines separately?

Giving the vaccines separately would mean six injections instead of two and would leave children exposed to two of the diseases for at least a year. These diseases can be serious and even fatal.

It has been said that giving the three vaccines together overloads children's immune systems. This is not the case. From birth, babies' immune systems protect them from thousands of viruses and bacteria that surround them.

The World Health Organization advises against using separate vaccines because they would leave children at risk for no benefit. No country in the world recommends MMR being given as three separate vaccines. There is no evidence that giving the vaccines separately is any safer, so we could be causing harm without doing any good.

## Are there any reasons why my child should not be immunised with MMR?

There are very few reasons why your child should not be immunised. You should let your GP or nurse know if your child:

- has a very high temperature or fever;
- has had convulsions or fits;
- has had a bad reaction to any immunisation;

- has had a severe allergy to anything;
- has had a bleeding disorder;
- has had treatment for cancer;
- has any illness that affects the immune system (eg leukaemia, HIV or AIDS);
- is taking any medicine that affects the immune system (eg high dose steroids or treatments given after organ transplant or for cancers);
- has any other serious illness.

These don't always mean that your child can't be immunised but it helps the doctor or nurse decide which are the best immunisations for your child and whether they need to give you any other advice. A family history of illness is never a reason for a child not to be immunised.



## Support for MMR

The support of a wide range of medical and nursing professionals for the MMR vaccine is shown by the following statement:

*“As professionals intimately involved in the long-term care of children, as well as in the immunisation programme, we wholeheartedly endorse the current policy of using the combined MMR vaccine.”*

### Joint statement issued on behalf of the:

Royal College of Paediatrics and Child Health

Royal College of General Practitioners

Royal College of Nursing

Community Practitioners and Health Visitors

Association

Faculty of Public Health Medicine

# Routine childhood immunisation programme

When to immunise	Diseases vaccine protects against	How it is given
<b>2 months old</b>	Diphtheria, tetanus, pertussis (whooping cough), polio and Hib	One injection
	Pneumococcal infection	One injection
<b>3 months old</b>	Diphtheria, tetanus, pertussis, polio and Hib	One injection
	Meningitis C	One injection
<b>4 months old</b>	Diphtheria, tetanus, pertussis, polio and Hib	One injection
	Meningitis C	One injection
	Pneumococcal infection	One injection
<b>12 months old</b>	Hib and meningitis C	One injection
<b>15 months old</b>	Measles, mumps and rubella	One injection
	Pneumococcal infection	One injection
<b>3 to 5 years old</b>	Diphtheria, tetanus, pertussis and polio	One injection
	Measles, mumps and rubella	One injection
<b>14 to 18 years old</b>	Tetanus, diphtheria and polio	One injection

If your child has missed out on any of these vaccines, it is never too late to catch up. Arrange an appointment with your GP or health visitor.

If you would like further information about immunisation, visit the DHSSPS website [www.dhsspsni.gov.uk/phealth](http://www.dhsspsni.gov.uk/phealth) or the national immunisation website [www.immunisation.nhs.uk](http://www.immunisation.nhs.uk) or [www.mmrthefacts.nhs.uk](http://www.mmrthefacts.nhs.uk)



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