UK Health Security Agency

NHS

A guide to the MMRV vaccination

that protects against measles, mumps, rubella and chickenpox (varicella).

immunisation

helping to protect everyone at every age

This guide is for parents and carers of infants aged 12 months to 3 years 4 months.

Please have your Red book ready for your vaccination appointment.

Copies of these booklets are available from your clinic or doctor's surgery. See also **www.nhs.uk/vaccinations**

This leaflet features the immunisation schedule from January 2026.

Complete your course

Routine vaccinations start with your first (priming) doses as a baby. **Get your child's boosters at the right age, or soon after, to help provide life long protection.**

What is measles?

Measles is caused by a virus that spreads very easily. Symptoms include high fever, rash, sore red eyes, cough and runny nose. Children can be off school for 10 days and 1 in 5 people with measles will be admitted to hospital. Complications include chest infections, fits, encephalitis (infection of the brain) and brain damage. It is more severe in babies under one year old, pregnant women, and people with weakened immune systems. Around 1 in 5000 people who catch measles may die.

What is mumps?

Mumps is caused by a virus. Symptoms include fever, headache and painful, swollen glands in the face, neck and jaw. Complications include hearing loss, meningitis, encephalitis, and painful swelling of the testicles and ovaries.

What is rubella?

Rubella is caused by a virus. In children it is usually mild and can cause a rash, swollen glands and a sore throat. If pregnant women catch rubella it can affect their unborn baby, causing serious damage to their sight, hearing, heart and brain.

What is chickenpox?

Chickenpox is a very infectious disease caused by the varicella zoster virus. It is very common in young children and causes a fever and an itchy, spotty rash. These spots can be painful and appear all over the body. Some children have serious complications including chest infection, fits, and encephalitis. It is more severe in adults, especially pregnant women and people with weakened immune systems.

Later in life, the chickenpox virus can re-activate and cause a painful rash. This is called shingles. It is worse in older people and in people with weakened immune systems.

MMRV vaccine

Your child should be immunised with their first dose of MMRV vaccine at one year of age, at the same time as their MenB and PCV vaccinations. The second (and final) dose is given at the age of 18 months, at the same time as their fourth 6 in 1 vaccine.

If your child has missed a dose of MMRV, they can have it at their 3 years and 4 months appointment, at the same time as their diphtheria, tetanus, pertussis, and polio booster.

To read more about the 6 in 1 vaccine see www.gov.uk/government/publications/vaccinations-for-children-aged-18-months

MenB vaccine: Bexsero www.medicines.org.uk/emc/product/5168/smpc

PCV vaccine: Prevenar 13 www.medicines.org.uk/emc/product/453/smpc

MMRV helps to protect your child against measles, mumps, rubella and chickenpox (varicella).

See the back of this leaflet for how to order a copy or view these leaflets online.

Types of MMRV vaccine

The MMRV vaccine contains weakened versions of living measles, mumps, rubella and chickenpox viruses. Because these viruses are weakened, they do not spread easily to other people.

There are 2 MMRV vaccines which work equally well: **ProQuad** and **Priorix Tetra**. ProQuad contains porcine gelatine (gelatine from pigs) and Priorix Tetra does not. If you want your child to have the vaccine without gelatine, talk to your practice nurse or GP.

Further information is available in the patient information leaflets.

ProQuad
www.medicines.org.uk/emc/product/101444/pil

Priorix Tetra
www.medicines.org.uk/emc/product/101321/pil

More information on vaccines and porcine gelatine is available on GOV.UK.

How is the vaccine given

The vaccine is injected into the muscle of the child's thigh or upper arm.

Long-lasting protection

MMRV is a simple way to protect your child against measles, mumps, rubella and chickenpox. Since MMR vaccine was introduced in 1988, cases of measles, mumps and rubella have all fallen to extremely low levels. MMRV offers the same protection as MMR, but adds protection against chickenpox. In countries where children already get a chickenpox vaccine, cases of chickenpox have also fallen dramatically. MMRV has been used for over 10 years in several countries and has a good safety record.

After vaccination with MMRV

Your child may be sore at the injection site for the first couple of days. The 4 viruses in the vaccine act at different times and sometimes produce side effects that are milder forms of the symptoms caused by the diseases themselves. These mainly occur after the first dose.

- the measles part of the vaccine starts to work 6 to 10 days after the immunisation. About 1 in 10 children may develop a fever (see section below on treating and preventing fever), and may be off their food. Some develop a measles-like rash which is not infectious
- the mumps and rubella parts of the vaccine start to work 2 to 3 weeks after the immunisation. A small number of children will have swelling of the face or pain in their joints. These are not infectious
- the chickenpox part of the vaccine starts to work from 3 to 4 weeks after immunisation. Some children will develop a few chickenpox-like spots at the site of the injection. The spots may contain infectious virus and should be covered. As long as the spots are covered children can go to nursery as normal

Side effects after the second dose are even less common and are usually milder.

Treating and preventing fever

A fever is a temperature over 37.5°C.

Fevers are quite common in young children. They are usually caused by common viruses but can be caused by some vaccines. If your child's face feels hot to the touch and they look red or flushed, they may have a fever.

You should check their temperature with a thermometer.

Keep your child cool by:

- making sure they don't have too many layers of clothes or blankets on
- giving them plenty of cool drinks

A dose of infant liquid paracetamol will help to make a child with a fever feel better. Read and follow the instructions on the bottle very carefully. You may need to give another dose 4 to 6 hours later.

Less common side effects

Any fever in a young child can sometimes lead to a seizure, also know as a fit. This is called a febrile convulsion, and it is common. One in 25 children will have a febrile convulsion before they turn 5. Usually, children recover quickly and there are no long-term consequences.

Around 1 in 1000 children may have a fit caused by a fever after having their first dose of MMRV. This is usually in the second week after the vaccine. This occurs slightly more frequently after MMRV than after the first dose of MMR, although the risk is small with both vaccines and much lower than the risk after the diseases themselves. For comparison, 1 in 43 children who catch measles will have febrile convulsions.

Seek urgent medical advice if your child has a fit or signs of encephalitis:

- seizures or fits
- confusion or disorientation
- changes in personality and behaviour
- difficulty speaking
- weakness or loss of movement in some parts of the body
- loss of consciousness

Dial 999 for an ambulance immediately if you or someone else has these serious symptoms.

Very rarely, children may get a rash of small bruise-like spots in the 6 weeks after the vaccination. This is usually caused by the measles or rubella parts of the vaccine. If you see spots like these, take your child to the doctor to be checked. The doctor will tell you how to deal with the rash.

Very rarely, children may develop a chickenpox-like rash (fluid-filled spots) over their body, not at the site of injection. If your child has a rash like this, take them to the GP.

Fewer than one child in a million develops encephalitis (swelling of the brain) after the MMRV vaccine. However, if a child who has not been vaccinated catches measles, the chance of developing encephalitis is between 1 in 200 and 1 in 5,000.

Is there anyone who should not have the MMRV vaccine?

There are very few reasons why children cannot be immunised.

The MMRV is a live vaccine so it should not be given to children who have weakened immune systems. If you think this applies to your child, you must tell your doctor, practice nurse or health visitor before the immunisation.

Vaccines should not be given to children who have had a confirmed anaphylactic reaction to either a previous dose of the vaccine or to an ingredient of the vaccine. If your child has had a confirmed anaphylactic reaction to neomycin, they should not have the vaccine. If your child has had a confirmed anaphylactic reaction to gelatine, they should have the gelatine-free vaccine.

Asthma, eczema, hay fever, food intolerances and other allergies do not prevent your child having any vaccine in the childhood immunisation programme. The MMRV vaccine can safely be given to children who have had a severe allergy (anaphylactic reaction) to egg. This is because MMRV vaccine is grown on chick cells, not the egg white or yolk. If you have any concerns, talk to your health visitor, practice nurse or doctor.

I am worried my child will be upset by having an injection

Your child may cry and be upset for a few minutes, but they will usually settle down after a cuddle.

I am concerned about overloading my child's immune system

Giving your child the MMRV vaccine alongside the other vaccines given at the same age will not overload their immune system. From birth, a baby's immune system protects them from the germs that surround them. Studies show it is safe to have several vaccinations at the same time.

What if I have missed an appointment for my child to be vaccinated?

Please make a new appointment and they can have their vaccines and catch up.

SCAN ME

Parents and carers can report suspected side effects of vaccines and medicines through the Yellow Card Scheme.

This can be done by visiting **yellowcard.mhra.gov.uk** or by calling the Yellow Card hotline on **0800 731 6789**. You can also use the QR code or by downloading the Yellow Card app.

Don’t forget your child’s next appointments to help give them the best protection as they begin to explore the world and mix with more children and people.

Schedule from one year of age to 5 years of age

Age of child	Vaccine given	Diseases the vaccines protect against
One year	PCV MMRV MenB	Pneumococcal Measles, mumps, rubella and chickenpox MenB
18 months	MMRV (dose 2)	Measles, mumps, rubella and chickenpox
	DTaP/IPV/Hib/HepB (6 in 1 vaccine)	Diphtheria, tetanus, pertussis, polio, Hib and hepatitis
3 years and 4 months	dTaP/IPV (pre-school booster)	Diphtheria, tetanus, pertussis and polio
	MMRV if a dose was missed	Measles, mumps, rubella and chickenpox

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1p 250K NOV 2025 (APS). UK Health Security gateway number: 2025518

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