HSC Public Health Agency

Immunisation

for babies just after their first birthday

immunisation

the safest way to protect your child

From 2026

Introduction

This leaflet contains the facts about the first MMRV vaccine and the PCV and MenB vaccines, which your child should have just after their first birthday. If you want to talk over this information please contact your doctor, health visitor or practice nurse. You may also find it helpful to visit: **pha.site/vaccinations** or **www.nidirect.gov.uk/childhood-immunisation**

Your child should have the MMRV, PCV and MenB vaccines just after their first birthday (12 to 13 months of age).

What is MMRV?

MMRV vaccine protects your child against measles (M), mumps (M), rubella (R; German measles) and varicella (V; chickenpox). For children born on or after 1 January 2025, your child should receive one dose of MMRV just after their first birthday and a second dose at 18 months old. Since MMR-containing vaccines were introduced here in 1988, the number of children catching these diseases has fallen to an all time low.

It is anticipated that with the new addition of the varicella component, cases of chickenpox seen in childhood will significantly reduce. The programme will reduce cases of severe chickenpox, associated complications and hospitalisation.

Measles, mumps, rubella and varicella (chickenpox) can all have serious complications.

What is measles?

Measles is caused by a very infectious virus. Nearly everyone who catches it will have a high fever, a rash and generally be unwell. The complications of measles include chest infections, fits (seizures), encephalitis (infection of the brain), and brain damage. In very serious cases, measles can kill.

What is mumps?

Mumps is caused by a virus which can lead to fever, headache, and painful, swollen glands in the face, neck and jaw. It can result in permanent deafness, viral meningitis and encephalitis (infammation and swelling of the brain).

What is rubella?

Rubella (German measles) is a disease caused by a virus. In children it is usually mild and can go unnoticed. However, rubella in pregnancy is very serious for unborn babies. It can seriously damage their sight, hearing, heart and brain. This condition is called congenital rubella syndrome (CRS).

Thanks to immunisation, the number of cases of measles, mumps and rubella have been reduced. However these diseases have not gone away and there have been outbreaks of measles in recent years across the world including in the UK and Europe. Immunising your child with the MMRV vaccine will give them the best protection.

What is varicella (chickenpox)?

Chickenpox (varicella) is a very infectious disease caused by a virus. Varicella is very common and affects most children during childhood, although it can be caught for the first time at any age. It is transmitted through direct contact between people, or indirectly through airborne droplets. Most varicella cases in children are relatively mild and the illness resolves without any need for treatment from a medical professional, though most children are unwell for several days and will miss 5 or more days from school or nursery. Parents may have to take time off work to care for them. However, some children will go on to develop complications from varicella, including bacterial infection of skin lesions and in rare cases, encephalitis (swelling of the brain), pneumonitis (lung infection) and stroke. These complications can result in hospitalisation and very rarely may result in death.

Does MMRV have any side effects?

MMRV contains 4 separate vaccines in one injection. The vaccines work at different times. Around 5 to 11 days after 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.

Rarely, about 3 weeks after the injection, a child might get mumps-like symptoms (fever and swollen glands) as the mumps part of MMRV starts to work.

Rarely, a rash of small, bruise-like spots may appear within 6 weeks of the vaccine, usually caused by the measles or rubella part. If this appears, take your child to the doctor.

A mild chickenpox-like rash may appear after vaccination near the injection site but can show up elsewhere. This rash does not need treatment and clears up on its own. If your child does get a rash, as a precaution avoid close contact with people who are more vulnerable to chickenpox infection, such as those with weakened immune systems, pregnant women who have never had chickenpox and newborns whose mothers haven't had chickenpox. However, the chance of passing chickenpox from this rash after getting the MMRV vaccine is extremely low.

About 1 in 1,000 will have a fit caused by a high temperature (see page 14 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 (5 in 1,000).

Vaccines can also cause allergic reactions. These are very rare, less than 1 in a million immunisations. Although severe allergic (anaphylactic) reactions are worrying when they happen, the people who give immunisations are trained to deal with anaphylactic reactions, and treatment will lead to a rapid and full recovery.

Rarely, children may develop encephalitis (swelling of the brain) after the MMRV vaccine. However, if an unvaccinated child catches measles, the chance of developing encephalitis is much higher.

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

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

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This can be done by visiting **mhra.yellowcard.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.

Facts about the MMRV vaccine

- MMRV vaccine protects children against measles, mumps, rubella and varicella (chickenpox).
- In over 40 years, more than 500 million doses of MMR have been given in around 100 countries. It has an excellent safety record.
- There is no evidence of any link between MMR and autism.
- Giving the vaccines separately may be harmful. It leaves children open to the risk of catching measles, mumps, rubella or varicella.
- Where MMRV is available, no countries recommend giving all the vaccines separately.
- While one MMRV vaccine contains porcine gelatine, an alternative is available. Speak to your doctor, nurse or health visitor for information.
- In the year before an MMR vaccine was introduced in the UK, 86,000 children caught measles and 16 died. Due to low vaccine uptake, there have been recent outbreaks in the UK and Europe and some children have died.

Have children been followed up long enough after MMR vaccines to know they are safe?

MMR combined vaccines have been given for over 40 years and over 500 million doses have been used. Its safety has been carefully monitored in many countries and it has been shown to be a highly effective vaccine with an outstanding safety record.

MMRV is the safest way to protect your child against measles, mumps, rubella and varicella.

What is MenB vaccine?

This vaccine protects against MenB disease, which is the most common type of meningococcal disease. Babies and young children are most at risk of this disease. This dose is given to increase your child's protection against MenB disease.

Does the MenB vaccine have any side effects?

Some babies may:

- have redness, swelling or tenderness where they had the injection (this will disappear on its own in a few days);
- be a bit irritable and feed poorly;
- have a temperature. Unlike for the doses of MenB vaccine your baby received at 8 and 12 weeks, it is not essential that you give paracetamol liquid after this vaccination visit to control temperature development. If, however, your child does develop a temperature/fever you should treat this as shown on page 14 of this booklet.

MenB vaccine protects against most but not all strains of MenB so it is important that you know what signs and symptoms to look out for, see pages 15 to 17.

What is pneumococcal vaccine (PCV)?

Pneumococcal (pronounced new-mo-cock-al) vaccine protects your child against one of the causes of meningitis, and also against other conditions such as severe ear infections (otitis media) and pneumonia caused by the most common types of pneumococcal bacteria. This vaccine does not protect against all types of pneumococcal infection and does not protect against meningitis caused by other bacteria or viruses. Before this dose of PCV just after the first birthday, your child should already have received one dose of PCV at 16 weeks of age.

What is pneumococcal infection?

Pneumococcal infection is one of the most common causes of meningitis but it also causes severe ear infections, pneumonia and some other serious illnesses.

Does PCV have any side effects?

Out of every 10 babies immunised, one or two may get swelling, redness or tenderness at the injection site or get a mild fever (see How to treat a fever section page 14).

Very rarely, a vaccine can cause an allergic reaction, such as a rash or itching affecting some or all of the body. Even more rarely, children may have a severe reaction within a few minutes of the immunisation, causing difficulty breathing and possibly collapse. This is called anaphylaxis. A recent study has shown that less than 1 case of anaphylaxis is reported in every million immunisations given. Although allergic reactions can be worrying, treatment leads to a rapid and full recovery.

Questions you may have

Are there any reasons why my child should not be immunised with MenB, MMRV and PCV?

There are very few reasons why your child should not be immunised. You should let your doctor, practice nurse or health visitor 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 a severe allergy to anything;
- has a bleeding disorder;
- has had or is currently having treatment for cancer;
- has any illness that affects the immune system (like leukaemia, HIV or AIDS);

- is taking any medicine that affects the immune system (for example, 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.

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

No, giving the vaccines separately would mean more injections and would leave children exposed to some of the diseases for longer. These diseases can be serious and even fatal.

Is it safe to receive several different vaccines during one visit (combined vaccines)?

Yes, it is safe to receive several different vaccines during one visit. Combined vaccines are as safe and effective as individual vaccines.

Receiving several vaccines or combined vaccines in one visit is important to protect children from various diseases as early as possible. This also makes it easier to complete the recommended doses on time.

Receiving multiple doses also does not overwhelm the immune system. In theory, a child could respond effectively to around 10,000 vaccines at any one time. Our immune systems can and do easily cope with the number of vaccines given in the routine vaccination schedule.

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

Side effects from childhood 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 should 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 (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.

Recognising meningitis and septicaemia

The MenB and the pneumococcal vaccines protect against meningitis (caused by meningococcal group B bacteria) and septicaemia (blood poisoning). There are other types for which there are no vaccines so it is important to still watch out for the signs and symptoms.

Meningitis can cause swelling of the lining of the brain. The same germs may also cause blood poisoning (septicaemia). A baby or child with meningitis or septicaemia can become very ill within hours. If untreated, both diseases may be fatal. Early symptoms of meningitis are mild and similar to those you get with colds and flu, such as a raised temperature (37.5°C and above), fretfulness, vomiting and refusal to eat. However, some of the important signs to look out for are listed below.

In babies, the main symptoms of **meningitis** may include:

- a high-pitched, moaning cry;
- being irritable when picked up;
- a bulging fontanelle (soft spot on head);

- being drowsy and less responsive – difficult to wake;
- being floppy and listless or stiff with jerky movements;
- refusing feeds, vomiting;
- skin that is pale, blotchy or turning blue;
- fever;
- convulsions or seizures;

and the main symptoms of **septicaemia** may include:

- rapid or unusual patterns of breathing;
- skin that is pale, blotchy, or turning blue;
- fever with cold hands and feet;
- shivering;
- vomiting, refusing to feed;
- red or purple spots that do not fade under pressure (do the glass test explained on page 17);
- pain or irritability from muscle aches or severe limb or joint pain;
- floppiness;
- severe sleepiness.

Where can I get more information on meningitis?

The Meningitis Research Foundation and Meningitis Now both provide information on meningitis.

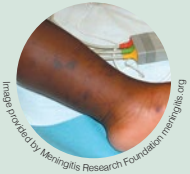
Phone Meningitis Now's free helpline on 0808 80 10 388 (9am-5pm Monday-Friday) or visit the website at **www.meningitisnow.org**

Phone the Meningitis Research Foundation's free helpline on 080 8800 3344 (9am-5pm Monday-Friday) or visit the website at **www.meningitis.org**

You can also ask your doctor, practice nurse or health visitor for advice.

If you press a glass tumbler firmly against a septicaemic rash, the rash will not fade. You will be able to see the rash through the glass. If this happens, get a doctor's help immediately.

The rash may be harder to see on black or brown skin. Check paler areas such as the palms of the hand or soles of the feet, roof of the mouth, tummy, whites of the eyes or inside the eyelids.



Routine childhood vaccination schedule

This schedule will be slightly different for babies born before 31 December 2024. Scan the QR code or visit **nidirect.gov.uk/childhood-immunisation** for more information.

8 weeks old
- 6-in-1
- Rotavirus
- MenB

12 weeks old
- 6-in-1
- Rotavirus
- MenB

16 weeks old
- 6-in-1
- Pneumococcal

1 year old (just after their first birthday)
- MMRV
- MenB
- Pneumococcal

18 months
- 6-in-1
- MMRV

2+ years
- Children's flu vaccine (yearly)

3 years and 4 months
- 4-in-1

If your child has missed out on any of these vaccines, talk to your doctor, practice nurse or health visitor.
For further information on these vaccinations, visit **pha.site/vaccinations**

6-in-1 protects against diphtheria, tetanus, pertussis (whooping cough), polio, Hib and hepatitis B

4-in-1 protects against diphtheria, tetanus, pertussis (whooping cough) and polio

If you would like further information about immunisation, visit

pha.site/vaccinations

or

www.nidirect.gov.uk/
childhood-immunisation

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Find us on:

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