

A guide to pre-school immunisations for 3 to 5 year olds

Your child may need extra immunisations if they are going abroad. Contact your doctor or a travel clinic for up-to-date information on the immunisations your child may need.

Malaria is a serious infection which you can catch from mosquito bites. It is a major problem in tropical countries.

If you are travelling to an area where there is malaria, your child will need protection. There isn't an immunisation against malaria, but your doctor may be able to give them some anti-malarial drugs.

Do all you can to avoid your child getting bitten by mosquitoes.
Use insect repellent and mosquito nets soaked in repellent.
Make sure their arms and legs are covered between sunset and sunrise.

Use a repellent that is specially made for children. Ask your pharmacist for advice.

You can get **Health advice for travellers**, an information leaflet produced by the Department of Health, from the post office or you can ring the **Health Literature Line** free on **0800 555 777** between 8am and 6pm and ask for **leaflet T6**. (This contains form **E111**.)

For more information on immunisation visit www.immunisation.org.uk

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NHS

Health Promotion England

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immunisation

The safest way to protect your child

Includes advice
on recognising
meningitis and
septicaemia

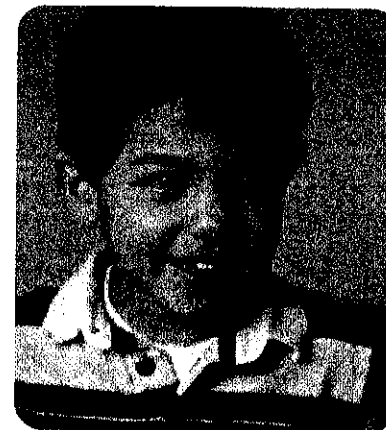


Introduction

This guide is for parents of children aged three to five years old. It explains all about the immunisations that are given to children before they start school, why they need these immunisations and what side effects they might have. It also answers some of the most common questions about pre-school immunisation.

If you have more questions or you want more information, talk to your doctor, practice nurse or health visitor.

You can also visit the Health Promotion England website at www.immunisation.org.uk or call NHS Direct on 0845 46 47.



Timetable of pre-school immunisations

You will receive an appointment inviting you to bring your child for their pre-school immunisations. These are due three years after your child has completed the baby immunisations they had at two, three and four months old.

The table below shows you which pre-school immunisations your child will be given. These immunisations will make sure that your child has the best protection against serious childhood diseases before they start school.

Vaccine	How it is given	Comments
Diphtheria, tetanus and acellular pertussis (whooping cough) (DTaP)	One injection	This is a booster dose of a similar vaccine your child had as a baby.
Polio	By mouth	This is a booster dose of a vaccine your child had as a baby.
Measles, mumps and rubella (MMR)	One injection	This is a second dose of the MMR vaccine. If your child has not had the first dose yet, then it should be given now, and they should have their second dose in three months time.

Common questions about pre-school immunisation

Why does my child need to be immunised before they start school?

Some of the immunisations that children are given when they are babies may not be enough to protect them throughout their school years. Immunity (protection) to diphtheria, tetanus, whooping cough and polio can fade over time. Immunity to measles, mumps and rubella may not develop, or it may be low, after a single dose of the MMR vaccine. The pre-school immunisations will top up your child's level of antibodies (substances in the body that fight off disease) and help to keep them protected.

When you take your child for their pre-school immunisations, you will also have the chance to make sure their other immunisations are up to date. For example, if they have missed their MenC vaccine, they can have it now.

How does immunisation work?

Vaccines make your child's immune system produce enough antibodies to protect them against disease. If your child comes into contact with any of the diseases they have been immunised against, the antibodies they have produced will protect them.

If your child has missed any of their immunisations as a baby or toddler, this is a good time to ask the surgery or clinic about catch-up doses. It is never too late to have your child immunised. You don't have to start the course of immunisations from the beginning again.

Common questions about pre-school immunisation

How do we know that the vaccines are safe?

Before anyone can be given a vaccine, it has to go through many tests to check that it is safe and that it works. All medicines can cause side effects, but vaccines are among the very safest. Only vaccines that pass all of the safety tests are used.

Research from around the world shows that immunisation is the safest way to protect your child's health.

We don't hear about most of these diseases any more, so are these immunisations really necessary?

Since immunisation was introduced in the UK, the number of children catching these diseases has fallen to an all-time low. But if children are not immunised, the diseases could come back. They are still around in Europe and throughout the world and there is still a risk of your child catching them.

Will there be any side effects from the vaccines?

There may be side effects but they are usually mild. Your child may get a little redness or swelling where the injection was given. This will disappear on its own. Some children get a fever. You can treat the fever by giving your child liquid paracetamol. Read the instructions on the bottle carefully and give your child the correct dose for their age. If necessary, give them a second dose four to six hours later. If your child's temperature is still high after they have had a second dose, speak to your doctor.

Remember, you must not give aspirin to children under 12 years old

Follow your instincts and contact your doctor if you are worried about your child.

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

There are very few reasons why children should not be immunised. But when you take your child for their immunisation, you should let your health visitor, doctor or practice nurse know if your child:

- has a fever;
- has had a bad reaction to any earlier immunisation;
- has had treatment for cancer or other serious conditions;
- has had a bleeding disorder;
- has an illness which affects the immune system, for example, HIV or AIDS; or
- is taking immunosuppressants or high-dose steroids (given after organ transplants or for cancer).

Ask your doctor, practice nurse or health visitor if you are not sure whether your child should be immunised.



Immunisations for preschool children

DTaP vaccine

The DTaP vaccine protects against diphtheria, tetanus and pertussis (whooping cough).

What is diphtheria?

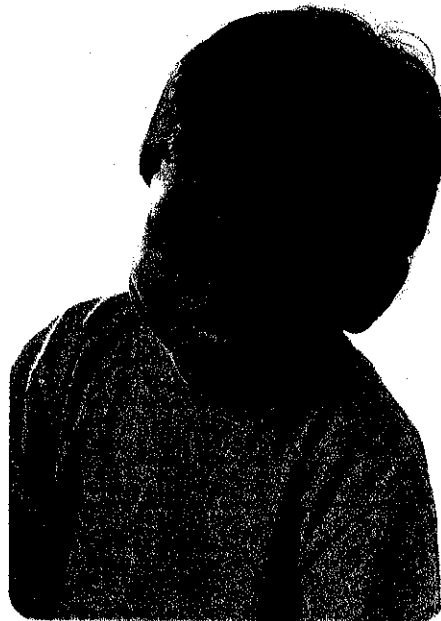
Diphtheria is a serious disease that usually begins with a sore throat and can quickly develop to cause problems with breathing. It can damage the heart and nervous system, and it can kill. Diphtheria can be spread by close contact with an infected person.

What is tetanus?

Tetanus is a painful disease that affects the muscles and can cause breathing problems. It is caused by germs that are found in soil and manure and can get into the body through open cuts or burns. Tetanus affects the central nervous system and, if it is not treated, it can kill.

What is pertussis (whooping cough)?

Whooping cough is a disease that can cause long bouts of coughing and choking which can make it hard to breathe. It can last for up to 10 weeks. It is not usually serious in older children, but it can be very serious in babies under one year old.



How effective is the DTaP vaccine?

Many studies have shown that the DTaP vaccine is very effective. DTaP has been given to children in the United States and some other European countries for a number of years.

Research has shown that the immunity to whooping cough from the vaccines that children are given at two, three and four months old may not last as they get older. The DTaP booster will protect your child and it will also protect babies who are too young to have had all of their immunisations.

Are there any side effects from the DTaP vaccine?

Your child may have some redness and swelling where they had the injection, but this will usually disappear in a few days. A hard lump may appear in the same place but this will also go, usually over a few weeks. Occasionally, children may be unwell and irritable and develop a temperature.

What is the difference between the DTaP vaccine and the DTP vaccine that babies are given at two, three and four months old?

The pertussis (whooping cough) part of the DTP vaccine works well for babies but it causes a higher rate of mild reactions in older children. The acellular pertussis vaccine (aP) is more suitable for older children.



Immunisations for pre-school children

Polio vaccine

The polio vaccine protects against poliomyelitis (polio).

What is polio?

Polio is a virus that attacks the nervous system and can permanently paralyse the muscles in the arms and legs. If it affects the chest muscles, it can kill.

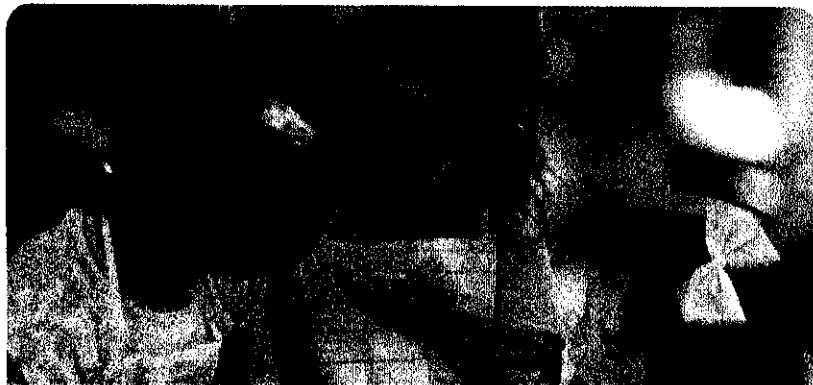
How effective is the polio vaccine?

Since the polio vaccine was introduced in 1956, it has been used throughout the world and the disease has almost gone. When everyone is immunised against polio, it will be wiped out and there will no longer be a need to immunise children against it.

What are the side effects caused by the polio vaccine?

There is an extremely small chance of your child developing polio from the polio vaccine – about one case in more than 10 million pre-school booster doses used.

The vaccine contains live polio virus which is passed in the faeces (poo) for up to six weeks after the immunisation. This virus can infect people who have not been immunised so you should take care when you are washing dirty underwear. If you are looking after a child who has had the polio immunisation, you should make sure you have also been immunised against polio.



MMR vaccine

The MMR vaccine protects against measles, mumps and rubella.

What is measles?

Measles is caused by a very infectious virus. It is often a mild disease but it can be dangerous. It causes a high fever and a rash and can go on to cause chest infections, fits and brain damage. About one in every 15 children who develop measles is at risk of complications. In serious cases, it can kill. We cannot tell which children may be seriously affected by measles.

What is mumps?

The mumps virus causes painful and swollen glands in the face, neck or under the jaw. It can cause permanent deafness. It can also cause viral meningitis and encephalitis (inflammation of the brain). Very rarely, it causes painful swelling of the testicles in boys and the ovaries in girls.

What is rubella (German measles)?

Rubella usually causes a mild rash in children, but is very serious for unborn babies. If a pregnant woman catches rubella early in her pregnancy, it can harm her unborn baby's sight, hearing, brain, liver, lungs and bone marrow. This condition is called congenital rubella syndrome (CRS). In many cases, pregnant women catch rubella from their own, or their friends', children.

How effective is the MMR vaccine?

In 1987, (the year before MMR was introduced in England), 86,000 children caught measles and 16 died. Now there are fewer than 100 cases of measles a year.

Before the MMR vaccine was introduced, mumps was the most common cause of viral meningitis in children under 15. It led to 1200 people going to hospital each year. Now there are almost no cases of mumps meningitis. But if children aren't immunised with the MMR vaccine, they are at risk of getting mumps.

Immunisations for pre-school children

In the five years before the MMR vaccine was introduced, there were around 43 cases of congenital rubella syndrome each year. In the last four years, there have been an average of fewer than two cases every year. All but one of these cases was caught abroad. The other case was linked to an outbreak of rubella which began in this country after someone caught the disease abroad. It is important that all children (boys and girls) are protected against rubella to prevent the number of cases increasing.

Although all three diseases are very rare in the UK, children who are not immunised are still at risk of catching them. Around 87% of children are having their MMR vaccines, but unless this level increases, there could be outbreaks of measles, mumps and rubella. Older children who have not received two doses of MMR are still catching mumps.

Immunising your child with two doses of the MMR vaccine before they go to school will give them the best protection. In Finland, where two doses of MMR have been given routinely since 1982, measles, mumps and rubella have been wiped out.

Why does my child need two doses of MMR vaccine?

Your child needs a second dose of MMR because it doesn't always work perfectly the first time. Some children who have only one dose of the vaccine may not be protected against one or more of the diseases.

Two doses of the MMR vaccine are routinely given across Europe as well as in the US, Canada, Australia and New Zealand. By giving your child a second dose, you can make sure they have the best possible protection for the future.

If your child has never had an MMR vaccination before, they should have the first dose now and the second dose three months later.

Are there any side effects from the second dose (pre-school) MMR?

It is even less common to have side effects after the second (pre-school) dose, and when side effects do happen, they are usually much milder.

The three separate vaccines in the MMR immunisation may have different side effects at different times.

- Six to ten days after their MMR vaccine, some children may become feverish, develop a measles-like rash and go off their food as the measles part of the vaccine starts to work.
- In the six weeks after the vaccine, your child may (very rarely) get a rash of small bruise-like spots. If you see spots like these, show them to your doctor.
- Very rarely, children may get a mild form of mumps about three weeks after their immunisation. They will not be infectious and can mix with other people as normal.
- Very rarely, some children may have a fit which is usually caused by a fever and is called a 'febrile convulsion'. But if a child has not been immunised and they get measles, they are much more likely to have a fit.

Although encephalitis (inflammation of the brain) has been reported (one case in a million doses), the risk of children developing encephalitis after their MMR vaccine is no higher than if they had not had the vaccine. But the risk of a child developing encephalitis as a result of having measles is more common (about one in every 5000 cases). Around a third of these children will be left with permanent brain damage.

Egg allergies

The MMR vaccine is made using eggs. If your child has a **severe** allergy to eggs (rashes on the face and body, a swollen mouth and throat, breathing problems and shock), tell your doctor or practice nurse. They can make special arrangements to give your child the vaccine safely.

Immunisations for pre-school children

I read about the MMR vaccine in the news a while ago – some people are saying that it could cause autism and bowel disease. How do I know that MMR is truly safe?

There have been stories in the press suggesting a link between the MMR vaccine and autism and bowel disease. Independent experts from around the world looked very carefully at this possibility. They have all advised that there is no link between MMR and autism or bowel disease. The MMR vaccine has been used in over 90 countries and it has an excellent safety record. If you want more information, ask your health visitor or doctor for a copy of the leaflet *MMR – The facts*.

Wouldn't it be better for my child to have MMR in separate vaccines?

No. The World Health Organisation advises against giving separate vaccines. No country in the world recommends it. Giving the vaccines separately would leave children at risk of catching measles, mumps or rubella for longer, and has no benefit over MMR.



These will be the last routine immunisations your child is likely to receive before they are offered the BCG vaccine against tuberculosis (TB), when they are 10 to 14 years old. Shortly before your child leaves school, they will be offered a final set of booster immunisations to protect them as adults.

Pre-school immunisations give your child the best protection before they start school. If your child has missed any immunisations, they can have them now. Talk to your doctor, practice nurse or health visitor.

Watch out for meningitis and septicaemia

What are meningitis and septicaemia?

Meningitis is an inflammation of the lining of the brain. The same germs that cause meningitis may cause septicaemia (blood poisoning). Both meningitis and septicaemia are very serious in young children and you must get treatment straight away.

The Hib and MenC vaccines that were introduced in the 1990s have reduced the risk of meningitis C and septicaemia. But other strains of meningitis, such as meningitis B, are still around. So it is important that you know what the signs and symptoms are and what to do if you see them.

What are the signs and symptoms of meningitis?

Early symptoms of meningitis are mild and they are similar to the symptoms of flu, for example, a fever, vomiting, being irritable and pain in the back or joints. But the most important signs to look out for are:

- red or purple spots that don't fade when you press them (**do the glass test – see below**);
- a stiff neck (check that your child can kiss their knee or touch their forehead with their knee);
- sleepiness or confusion;
- a very bad headache; and
- a dislike of lights.

What should I do?

If your child develops one or more of the above signs or symptoms, get medical help urgently. If you can't get in touch with your doctor, or are still worried after getting advice, trust your instincts and take your child to the nearest accident and emergency department.

The 'glass test'

Press the side of a clear glass firmly against the rash – you will be able to see if the rash fades and loses colour under pressure. If it doesn't change colour, contact your doctor immediately.

