

Immunisation for babies

in the first year of life



Immunisation
protect your child for life

Includes information on
a new vaccine for babies
aged 2, 3 and 4 months

Introduction

This guide is for parents with babies in the first year of life. It provides information on the routine immunisations that are given to babies to protect them from serious childhood diseases. It also describes these diseases and explains why children need protection against them.

In particular, it describes a new vaccine, called DTaP/IPV/Hib, introduced in 2004 to protect your baby against diphtheria, tetanus, pertussis (whooping cough), polio and Hib. These are the same diseases that babies have always been immunised against, but this vaccine is a new, better way to do this.



“The two public health interventions that have had the greatest impact on the world’s health are **clean water** and **vaccines**.”

World Health Organization

What is immunisation?

Immunisation is the best and safest way to help stop your baby becoming sick from various infectious diseases. Babies are given injections called vaccines, which stimulate the body to produce antibodies. Antibodies are the body's natural defence system to fight infectious diseases. Immunisation helps keep the body ready to fight the infection if the child comes into contact with the disease.

Why do we need immunisation?

Around the world, over 14 million people die from infectious diseases every year. Most of these diseases have become very rare in Northern Ireland and you may have heard very little about them. They have become rare because we have such high uptake levels for vaccinations and the vaccinations have been very good at getting rid of the diseases. However, they are still common in other parts of the world and with increased travel to foreign countries could be brought back to Northern Ireland and affect any children who haven't been vaccinated.

It is important we don't forget how serious these diseases can be. Young babies are most vulnerable to these infections, which is why they need to be protected as early as possible. It takes a number of injections to fully protect your baby, so it's important to complete the course. If your baby misses any of these injections, they can still catch up, even if there's been a long gap. Just ask your GP or health visitor to arrange to give them the dose they missed. They don't have to start the course again from the beginning.

Some diseases are more likely to be serious in older children - so it's important to make sure they are given booster vaccinations.

If you have any questions about immunisation, speak to your GP, practice nurse or health visitor. You can also visit www.immunisation.nhs.uk or www.dhsspsni.gov.uk/phealth or www.mmrthefacts.nhs.uk



The vaccines for babies

DTaP/IPV/Hib vaccine

This new vaccine protects against diphtheria (D), tetanus (T) and pertussis (P; whooping cough), polio (Inactivated Polio Vaccine - IPV) and *Haemophilus influenzae* type b (Hib). The polio part is now given in the same injection rather than by mouth.

Your baby should have the DTaP/IPV/Hib vaccine at two, three and four months of age.

Your child will be given a booster against diphtheria, tetanus, pertussis and polio before they start school. They will get a further tetanus, diphtheria and polio booster between the ages of 14 and 18.

Why is the change being made now?

The risk of polio infection being brought into the UK is very low. This is because polio has mostly been wiped out through a worldwide vaccination programme. This means that a switch can be made from a live oral polio vaccine (OPV, given by mouth) that provides better community-wide protection, to an inactivated polio vaccine (IPV), which provides effective individual protection.

A different pertussis vaccine is now available that has been shown to be just as effective as the vaccine used before but causes fewer minor reactions.

My baby daughter has started being immunised with the old vaccines - can she switch to the new ones?

The old and new vaccines are compatible. She will be fully protected, as long as she completes the programme of immunisations (see back cover).

How do we know that this new vaccine is safe and effective?

A vaccine has to go through many tests to check that it is safe and that it works before it is given to anyone. These checks continue even after a vaccine has been introduced. Only vaccines that pass all of the safety tests are used. All medicines can cause side effects, but vaccines are among the very safest. Research from around the world shows that immunisation is the safest way to protect your child's health. See below, page 6 for more on side effects.

What diseases will the DTaP/IPV/Hib vaccine prevent?

Diphtheria

Diphtheria is a serious disease that can quickly cause breathing problems. It can damage the heart and nervous system and, in severe cases, it can kill. Before the diphtheria vaccine was introduced there were up to about 1,500 cases of diphtheria in a year in Northern Ireland.

Tetanus

Tetanus is a painful disease that affects the muscles and can cause breathing problems. It is caused when germs that are found in soil and manure get into the body through open cuts or burns. Tetanus affects the nervous system and can kill.

Pertussis (whooping cough)

Whooping cough is a disease that can cause long bouts of coughing and choking that can make it hard to breathe. It can last for up to 10 weeks. It can be very serious for young children and can even kill babies under one year old. Before the pertussis vaccine was introduced up to 3,500 cases of pertussis were reported in a year in Northern Ireland.

Polio

Polio is a virus that attacks the nervous system and can permanently paralyse the muscles. If it affects the chest muscles or the brain, polio can kill. Before the polio vaccine was introduced as many as 1,500 cases of paralytic polio occurred in a year in Northern Ireland.

Hib

Hib is an infection that can cause a number of major illnesses like blood poisoning, pneumonia and meningitis. All of these illnesses can kill if they are not treated quickly. The Hib vaccine only protects your baby against one type of meningitis (Hib). It does not protect against any other type of meningitis.



Side effects of the DTaP/IPV/Hib vaccine

Most babies will not have any side effects, but all babies are different. Your baby may get some of the following side effects, which are usually mild.

- irritability up to 48 hours after having the injection;
- a mild fever (see page 9);
- a small lump at the site of the injection. This could last for a few weeks and will slowly disappear.

If you think your baby has had any other reaction to the DTaP/IPV/Hib vaccine and you are concerned about it, talk to your doctor, practice nurse or health visitor.

Very rarely, a vaccine may 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 one case of anaphylaxis is reported in about half a million immunisations given. Although allergic reactions can be worrying, treatment leads to a rapid and full recovery.

Very rarely, babies may have a fit a day or two after their DTaP/IPV/Hib vaccination. This is usually related to a very high temperature (see page 9). If your baby has a fit, call your GP immediately. Babies usually recover from fits quickly and completely. Young babies can have fits at any time, so having a fit after their vaccination may not necessarily be linked to the vaccine. Your doctor will decide whether your baby can have more doses of the vaccine. If you delay the immunisation, it can increase the chance of your baby having a fit after DTaP/IPV/Hib because fits due to a high temperature are less common in the first six months of life. So it's important to make sure your baby gets vaccinated at the right age.

MenC vaccine

This vaccine protects against infection by meningococcal group C (MenC), which is a type of bacteria that can cause meningitis and septicaemia (blood poisoning). The MenC vaccine does not protect against meningitis caused by other bacteria or by viruses.

**Your baby should have the MenC immunisation
at two, three and four months of age.**

What are meningitis and septicaemia?

Meningitis is an inflammation (swelling) of the lining of the brain. Septicaemia is blood poisoning. The same germs that cause meningitis may cause septicaemia. Babies and young people aged 15 to 17 are most at risk of getting meningitis or septicaemia from meningococcal group C.

How effective is the MenC vaccine?

Since the MenC vaccine was introduced, the number of babies under one year of age with group C disease has fallen by around 95%. About nine out of ten babies are protected by this vaccine as soon as it is given to them.

Both meningitis and septicaemia are very serious. It is important that you recognise the signs and symptoms and know what to do if you see them (see page 10).

Side effects of the MenC vaccine

Your baby may have redness and swelling where they had the injection. About half of all babies who have the vaccine may become irritable, and around 1 in 20 could get a mild fever. Very rarely, a vaccine may cause an allergic reaction (see opposite, page 6).

MMR vaccine

MMR protects your child against measles (M), mumps (M) and rubella (R; German measles).

**Your baby should have the MMR immunisation
at around 15 months of age.**

Your child will receive a booster dose of MMR before they start school.

You will be sent information about MMR and MMR booster shortly before your child is due to get the vaccines. If you would like information before then, look on the website www.mmrthefacts.nhs.uk or www.dhsspsni.gov.uk/phealth or don't hesitate to ask your health visitor.



Common questions about immunisation

How soon after vaccination can I take my baby swimming?

You can take your baby swimming at any time, both before and after they have their vaccinations. Contrary to popular belief, your baby does not need any immunisations before they go swimming.

Are there any other ways to immunise my baby?

There is no other proven, effective way to immunise your baby. Homeopathic medicine has been tried as another way to protect against whooping cough, but it doesn't work. The Council of the Faculty of Homeopathy (the registered organisation for doctors qualified in homeopathy) advises parents to have their children immunised with standard vaccines.

I have heard there is thiomersal (mercury) in vaccines

Thiomersal is no longer used in vaccines in the routine childhood immunisation programme. A minuscule amount of mercury was used for over 60 years to help preserve vaccines. In all this time there was never any evidence that it did any harm. However, its use has now been phased out as part of the global goal to reduce exposure to mercury from avoidable sources.

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

There are very few reasons why babies should not be immunised. You should let your health visitor, GP or practice nurse know if your baby:

- has a very high temperature or fever;
- has had a bad reaction to any immunisation;
- has a severe allergy to anything;
- has a bleeding disorder;
- has had convulsions or fits;
- 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 baby can't be immunised, but it helps the doctor or nurse decide which are the best immunisations for your baby and if they need to give you any other advice. A family history of illness is never a reason for a baby not to be immunised.

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 they are by the vaccines.

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

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.

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, lie them on their side in a safe place because their body may twitch or jerk.

Recognising meningitis and septicaemia

The MenC vaccine and the Hib vaccine protect against two types of meningitis 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 include:

In babies

- high pitched cry;
- difficult to wake;
- very high temperature (39°C and above);
- pale or blotchy skin;
- very cold hands and feet;
- red or purple spots/marks that do not fade under pressure (see photo). These can appear anywhere on the body.

In older children

- a stiff neck - can the child touch their forehead to their knee?
- drowsiness or confusion;
- very bad headache;
- dislike of bright lights;
- very cold hands and feet;
- red or purple spots/marks that do not fade under pressure (see photo). These can appear anywhere on the body.



If a glass tumbler is pressed 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.

You shouldn't wait for all of these signs to appear. If your child becomes ill with any one of these important signs, contact your doctor immediately or take your child to the accident and emergency department of your nearest hospital.

Where can I get more information?

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

- Phone the Meningitis Research Foundation's free 24-hour helpline on 080 8800 3344 or telephone 028 9032 1283. You can also visit the website at www.meningitis.org
- Phone the Meningitis Trust's 24-hour helpline on 0845 6000 800 or visit the website at www.meningitis-trust.org



Routine childhood immunisation programme

When to immunise	Diseases vaccine protects against	How it is given
2, 3 and 4 months old	Diphtheria, tetanus, pertussis (whooping cough), polio and Hib	One injection
	Meningitis C	One injection
Around 15 months old	Measles, mumps and rubella	One injection
3 to 5 years old	Diphtheria, tetanus, pertussis and polio	One injection
	Measles, mumps and rubella	One injection
10 to 14 years old (and sometimes shortly after birth)	Tuberculosis (BCG vaccine)	Skin test, then one injection, if needed
14 to 18 years old	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/health or the national immunisation website www.immunisation.nhs.uk or www.mmrthefacts.nhs.uk

