



**Mae Brechu yn achub bywydau**  
**Vaccination saves lives**



**Diphtheria, tetanus,  
pertussis, polio,  
Hib and hepatitis B**

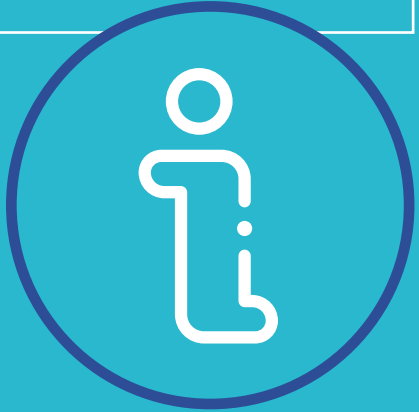
**vaccine for babies  
and children**



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**This leaflet tells you about the DTaP/IPV/Hib/HepB vaccine. This vaccine is also known as the 6-in-1 vaccine, as it protects against six diseases – diphtheria, tetanus, pertussis (whooping cough), polio, Haemophilus influenzae type b (Hib) and hepatitis B (HepB).**





## What does the vaccine protect against?

### Diphtheria

Diphtheria is a serious disease that usually begins with a sore throat and can quickly cause breathing problems. It can damage the heart and nervous system and, in severe cases, can kill. Before diphtheria vaccine was introduced in the UK, there were up to 70,000 cases of diphtheria and around 5,000 deaths a year. Diphtheria can be spread from person to person through close contact.

### Tetanus

Tetanus is a disease affecting the nervous system. It causes muscle spasms and breathing problems, and can kill. It is caused when germs found in soil and manure get into the body through wounds or burns. Tetanus cannot be passed from person to person.

### Pertussis (whooping cough)

Whooping cough is a disease that can cause long episodes of coughing and choking, making it hard to breathe. It can last for up to 10 weeks, and babies under one year old are most at risk. The disease is very serious and can kill.

Before the whooping cough vaccine was introduced, the average number of cases reported each year in the UK was 120,000, and 92 children died in the year before the vaccine was introduced. Whooping cough is usually spread by coughs and sneezes.

## Polio

Polio is a virus that can attack the nervous system and can cause permanent paralysis of the muscles. If it affects the chest muscles or the brain, it can kill.

Before the polio vaccine was introduced, there were as many as 8,000 cases of polio in the UK in years when there were epidemics. Polio is spread mainly by swallowing material which contains the virus.

## Hepatitis B

Hepatitis B is a virus that infects the liver and can lead to serious liver disease. There are about 250 million people infected with hepatitis B in the world at any one time. About 600 to 800 new cases a year are reported in England and Wales. That is around 30 new cases each year in Wales, but many more people will carry the virus in their blood and liver.

The hepatitis B virus is present in the blood and some other body fluids of infected people.

## Hib (Haemophilus influenzae type b) disease

Hib is an infection caused by Haemophilus influenzae type b bacteria. It can lead to a number of serious illnesses such as blood poisoning (septicaemia), lung infection (pneumonia) and meningitis (an infection of the covering of the brain). The illnesses caused by Hib can kill if it is not treated quickly.

Before the Hib vaccine was introduced, there were about 800 cases of Hib in young children every year in the UK. The bacteria can spread in the air from other people's coughs and sneezes. The Hib vaccine only protects against the type of meningitis caused by Haemophilus influenzae type b bacteria. It does not protect against any other type of meningitis, so you still need to know the signs and symptoms of the disease.



Symptoms may appear in any order and some may not appear at all. See the illustration below for symptoms.

## Babies and toddlers



Fever, cold hands and feet



Refusing food and vomiting



Fretful, dislike being handled



Drowsy, floppy, unresponsive



Rapid breathing or grunting



Pale, blotchy skin  
Spots or rash  
(see glass test)



Unusual cry, moaning



Tense bulging fontanelle  
(soft spot)



Stiff neck, dislike bright lights



Convulsions or seizures

## Children and adults



Fever, cold hands and feet



Vomiting



Drowsy, difficult to wake



Confusion and irritability



Severe muscle pain



Pale, blotchy skin  
Spots or rash  
(see glass test)



Severe headache



Stiff neck



Dislike bright lights



Convulsions or seizures

Source: © meningitisnow.org

# What should I do if I suspect meningitis?

If someone is ill and getting worse, do not wait for a rash as symptoms can appear in any order and some may not appear at all, so 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 go to the emergency department of your nearest hospital.



## The glass test

- Press the side of a clear glass firmly against the skin.
- Spots or a rash (or both) may fade at first.
- Keep checking.
- Fever with spots or a rash (or both) that do not fade under pressure is a medical emergency.
- If your child is ill and getting worse, get medical help immediately.
- On dark skin, the spots or rash can be more difficult to see.

## When is the 6-in-1 vaccine offered?

Your child will be offered this vaccine at two, three and four months.

## How will I know when my child's vaccinations are due?

Children are sent an appointment to attend for their routine 6-in-1 vaccine at the appropriate age. Most surgeries and health centres run special vaccination or baby clinics.

## What happens at the appointment?

The nurse or doctor will explain about the vaccinations and answer your questions. With babies, the vaccine is given by injection into the thigh. In children over the age of 12 months, injections are usually given into the upper arm.

## Can the vaccine be given if my child is unwell on the day of the appointment?

If your child has a minor illness without a fever, such as a cold, they should have their vaccinations as normal. If your child is ill with a fever on the day the vaccination is due, delay the vaccination until they have recovered.





## Are there any reasons why the vaccine should not be given?

There are very few reasons why children cannot be vaccinated. This vaccine should not be given to children who have had a severe (life-threatening) reaction to a previous dose of the vaccine or any ingredient in the vaccine.

If your child:

- has a bleeding disorder (for example haemophilia, where their blood does not clot properly), or
- has had a fit not caused by fever,

Speak to your doctor, practice nurse or health visitor before your child has any vaccination.

## My baby was born early. When should premature babies have their vaccine?

Babies born early may be at more risk of getting an infection. They should start their vaccinations two months after they were born, no matter how early they were born.

## What if I miss the appointment?

You should cancel an appointment if you can't make it. If you do miss the appointment or have to delay the vaccination, make a new appointment as soon as possible. Vaccinations can still be given, but your child will be without protection for longer.



**Remember, it's important to catch up on most missed vaccinations. If your child has missed a vaccination and is older than the recommended age, talk to your GP, practice nurse or health visitor.**

## Does the vaccine have any side effects?

Millions of doses of the vaccine have been used and it has a very good safety record. Children can sometimes get a sore leg or arm where the injection was given. Some may develop a small lump where the needle was put in. This is normal and may last some weeks. It does not need any treatment. They may also get a raised temperature (fever) over 38°C, seem unsettled and may not want to eat much. If your child has a raised temperature and appears unwell, keep them cool by:

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

A dose of the correct-strength paracetamol liquid may help reduce your child's fever. Read the instructions on the bottle very carefully. You may need to give another dose four to six hours later.



**If you are worried about your child after the vaccination you should speak to your health visitor, doctor or practice nurse or call NHS 111 Wales on 0845 4647 or 111 if available in your area.**

## Does my child have to be vaccinated?

In the UK, parents can decide whether or not to have their children vaccinated. Vaccination is recommended because it gives your child protection against serious diseases, most of which can kill. Around the world, many children are now routinely protected with vaccines. Because of this, some of the world's most serious diseases may soon disappear.



# Where can I get more information?

If you have any questions or want more information, you can visit **111.wales.nhs.uk**, talk to your doctor or nurse or call **NHS 111 Wales**.

If **111** is not available in your area, please call **0845 46 47**. Calls from landlines and mobiles cost 2p per minute (plus your telephone provider's usual charge).

You can find out more about the vaccine, including its contents and possible side effects at **www.medicines.org.uk/emc**. You will need to enter the name of the vaccine (Infanrix hexa) in the search box. You can also see the patient leaflet online.

You can find more information on the 6-in-1 (DTaP/IPV/Hib/HepB) vaccine at:  
**111.wales.nhs.uk/livewell/vaccinations**

A schedule showing which vaccinations are routinely offered in Wales is available from  
**111.wales.nhs.uk/pdfs/adultschedule.pdf**

To order more copies of this leaflet, visit:  
**www.publichealthwales.org/HealthInformationResources**

To find out how the NHS uses your information, visit: **111.wales.nhs.uk/lifestylewellbeing/yourinfoyourrights**