



Mae Brechu yn achub bywydau  
Vaccination saves lives



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# Protect your baby with the diphtheria, tetanus, pertussis, polio, Hib and hepatitis B (6-in-1) vaccine

This leaflet explains the 6-in-1 vaccine (DTaP/IPV/Hib/HepB).

## Key facts

### Protect your child's health

Vaccination is one of the best ways to protect your child from serious illnesses. The 6-in-1 vaccine helps protect against:

- diphtheria
- tetanus
- pertussis (whooping cough)
- polio
- Hib (Haemophilus influenzae type b), and
- hepatitis B.



Scan me for more information on 6-in-1

## Vaccination is important

Before vaccines, many children in the UK caught these diseases every year. Vaccination has reduced these cases and saved many lives.

**It is important to vaccinate to stop these diseases from coming back.**

## When to get the vaccine

Your child should get their course of the 6-in-1 vaccination at **8 weeks**, **12 weeks** and **16 weeks**.

From **January 2026** your child will also get a 6-in-1 vaccination at **18 months**.

## What does the 6-in-1 vaccine help protect against?

### Diphtheria

Diphtheria is a serious disease that usually begins with a sore throat and a raised temperature (fever). It can quickly lead to breathing problems and may damage the heart and nerves. In severe cases, it may cause death. Diphtheria spreads by coughs and sneezes or close contact with an infected person.

Diphtheria is rare in the UK. However, it is possible to catch it while travelling to other countries.

**Fact! Before the diphtheria vaccine was introduced to the UK, there were up to 70,000 cases of diphtheria and up to 5,000 deaths a year.**

## **Tetanus**

Tetanus affects the body's nerves, causing muscle spasms and breathing problems. It is a severe disease that can lead to serious health problems if not treated quickly. It's caused by germs found in soil or manure that enter the body through open cuts or burns. Tetanus cannot spread from person to person.

## **Pertussis (whooping cough)**

Pertussis, more commonly known as whooping cough, is an infection that affects the lungs and airways. Symptoms tend to develop in stages, starting with mild, cold-like symptoms. These can be followed by more severe symptoms, before an improvement.

Whooping cough can cause long bursts of coughing and choking, which make it hard to breathe. The 'whoop' noise is caused by gasping for breath after each period of coughing. Young babies don't always do this, which can make it difficult to recognise the disease.

Symptoms of whooping cough can last for two to three months. Babies under the age of one are at the greatest risk of serious illness and are at risk of dying from the disease.

Before the whooping cough vaccine was introduced, the average number of suspected cases reported each year in the UK was 120,000. In the year before the vaccine was introduced, 92 children died. Whooping cough spreads easily and can be caught by breathing

in tiny droplets that are released into the air when people with the disease cough or sneeze.

## Polio

Polio is a virus that can affect your nerves. It can cause permanent muscle weakness, usually in the legs. If polio affects the chest muscles or the brain, it can lead to very serious health problems.

You can catch polio if you come into contact with the poo of someone who is infected, or by breathing in droplets from their coughs or sneezes.

**Fact! In 1988, polio paralysed more than 1,000 children worldwide every day.**

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. Thanks to the vaccination's ongoing success, the UK hasn't seen a natural polio infection in over 30 years. The last case was reported in 1984. This is why it is important to vaccinate to stop diseases such as polio from coming back.

## Hepatitis B

Hepatitis B is a virus that infects the liver. It can lead to life-threatening infections and severe liver disease.

The hepatitis B virus is found in the blood and some other body fluids of infected people. It can be passed from mother to baby during birth. Children and adults can also get hepatitis B from contact with infected

body fluids. It's common for babies and children who get hepatitis B to have long-lasting infections.

Babies born to mothers with hepatitis B are given additional vaccines at birth to reduce the risk of them getting the infection.

**Fact! Over 250 million people around the world have hepatitis B. New cases of hepatitis B have increased in Wales in the last few years. In 2023 there were over 260 new cases. Many more people might have the virus without knowing it.**

## **Hib (Haemophilus influenzae type b) disease**

Hib is a type of bacteria called Haemophilus influenzae type b. It can cause serious illnesses such as blood poisoning (septicaemia), lung infections (pneumonia) and meningitis (an infection of the covering around the brain). If not treated quickly, these illnesses can be very dangerous.

The bacteria can spread through the air when people cough or sneeze. The Hib vaccine only protects against the type of meningitis caused by Hib bacteria. It does not protect against other types of meningitis, so it's important to know the signs and symptoms of the disease.

**Fact! Following the introduction of the Hib vaccine, cases in babies under the age of one fell by over 95%.**

**! Symptoms of meningitis may appear in any order and some may not appear at all. See 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 (use the glass text – see below)
- Unusual cry, moaning
- Tense bulging fontanelle (soft spot)
- Stiff neck, dislike bright lights
- Convulsions or seizures

**Very young babies may not have a fever. Their temperature could be normal or low.**

## **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 (use the glass test – see below)
- 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.

Someone with a fever and a rash that does not fade under pressure needs urgent medical attention. You can use the glass test to check whether a rash fades under pressure. For more information about this test, go to [www.meningitisnow.org](http://www.meningitisnow.org) (external site) or call the Meningitis Now helpline on **0808 80 10 388**.

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

Your child should get their 6-in-1 vaccination at **8 weeks, 12 weeks and 16 weeks**. From **January 2026** your child will also get a 6-in-1 vaccination at **18 months**.

## Why has my baby been invited for a vaccination appointment at 18 months?

From **January 2026** your child will be offered a 6-in-1 vaccination at **18 months**.

Having an extra 6-in-1 vaccination is safe and effective.

For more information about the 18-month appointment, go to:  
[phw.nhs.wales/vaccines/pre-school](http://phw.nhs.wales/vaccines/pre-school)

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

Children are sent an appointment for their routine 6-in-1 vaccinations at the appropriate age. Most GP surgeries and health centres run special vaccination clinics for babies and children. If you change your address, please let your GP surgery know.

## What happens at the appointment?

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

**Write down any questions you have and ask the health professional at the vaccination appointment.**

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

If your child is ill with a raised temperature (fever) on the day the vaccination is due, delay the appointment until they are better. If your child has a minor illness without a fever, such as a cold, they should have the vaccination as normal.

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

Very few children cannot have the 6-in-1 vaccination. The vaccine should not be given to children who have had a severe (life-threatening) allergic reaction to:

- any ingredient in the vaccine, or
- a previous dose of the vaccine.

If your child:

- has a bleeding disorder (such as haemophilia, where their blood does not clot properly), or
- has ever had a seizure (fit) that wasn't caused by a fever

Speak to your GP, practice nurse or health visitor before they have 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. The vaccination can still be given, but your child will be without protection for longer.

**! Remember, it's important to catch up on missed vaccinations. If your child has missed a vaccination and is older than the recommended age for it, 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.

Like all medicines, vaccines can cause side effects, but not everyone gets them. Most side effects are mild and may last a day or two. Vaccine side effects are minor compared to getting seriously ill from the diseases.

## The most common side effects include:

- a sore leg or arm where the injection was given
- a small lump where the needle was put in (this is normal and may last some weeks, but it does not need any treatment)
- a raised temperature (fever) over 38°C
- feeling unsettled, and
- loss of appetite.

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.

## Very rare side effects

Rarely, people can have a severe reaction soon after the vaccination, which causes breathing difficulties and may cause them to collapse. This is called an anaphylactic reaction, and it can also happen with other medicines and food. These reactions are extremely rare, affecting less than one in a million people. Staff who give vaccinations are trained to manage these reactions.

People who have an anaphylactic reaction can be successfully treated and usually recover within a few hours.

See the back page of this leaflet for further details on:

- the vaccine, including possible side effects, and
- reporting suspected side effects through the Yellow Card scheme.

If you have any questions about side effects, you can ask the person giving your child the vaccine.

## What should I do if my child feels unwell after the vaccination?

A dose of the correct-strength liquid paracetamol may help reduce your child's fever. Read the instructions on the bottle very carefully and give the correct dose for your child's age. You may need to give another dose four to six hours later. It is not recommended to give liquid paracetamol before vaccination to prevent a fever.

**! Remember - children under 16 should not take medicines that contain aspirin.**

If you are worried about your child after the vaccination you should speak to your health visitor, GP or practice nurse. You can also contact NHS Wales by calling **111**. Calls to NHS 111 Wales are free from landlines and mobile phones.

## Can my child still get these infections if they are vaccinated?

The 6-in-1 vaccination is one of the most effective ways to prevent severe illness from diphtheria, tetanus, whooping cough, polio, Hib and hepatitis B. No vaccine is 100% effective, so it is still important to know the signs and symptoms of these diseases, even if you or your child are vaccinated.

For more information about these diseases go to:

**NHS 111 Wales - Health A-Z : Diphtheria** (external site)

**NHS 111 Wales - Health A-Z : Tetanus** (external site)

**NHS 111 Wales - Health A-Z : Whooping cough** (external site)

**NHS 111 Wales - Health A-Z : Polio** (external site)

**NHS 111 Wales - Hib (Haemophilus influenzae type b)** (external site)

**NHS 111 Wales - Health A-Z : Hepatitis B** (external site)

The information in this leaflet is correct at the time of publication. For the most up-to-date information, please visit [phw.nhs.wales/vaccines](https://phw.nhs.wales/vaccines)

## Further information

If you have any questions or want more information, you can go to **111.wales.nhs.uk** (external site), talk to your doctor or nurse, or contact NHS 111 Wales by calling **111**.

You can find out more information on vaccines offered in Wales at **phw.nhs.wales/vaccines**

To find out more about the vaccine, including its contents and possible side effects, go to:

**medicines.org.uk/emc** (external site). You will need to enter the name of the vaccine in the search box. You can also see the patient leaflet online.

You can find the name of the vaccine at **phw.nhs.wales/6in1vaccine**

You should report suspected side effects online at **www.mhra.gov.uk/yellowcard** (external site), by downloading the Yellow Card app, or by calling **0800 731 6789** (Monday to Friday, 9am to 5pm).

To find out how the NHS uses your information, go to **111.wales.nhs.uk/AboutUs/Yourinformation** (external site).



Scan me to go to the **Public Health Wales website**



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