



DANISH HEALTH  
AUTHORITY

# Childhood Immunisation Programme

Vaccination offers protection

Health for all ♥ + ●



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# Vaccination of children

In Denmark all children are offered vaccination against multiple infectious diseases. They are potentially dangerous diseases that can cause severe illness. In a worst case scenario they can even lead to death. The Danish Childhood Immunisation Programme has existed since 1943.

When your child follows the immunisation programme they are well protected against serious diseases, such as measles, polio and whooping cough.

## Why are children offered vaccination?

When we vaccinate children they are protected against severe illness and it helps protect those around them as well.

Many of the diseases we vaccinate against are almost eliminated in Denmark – and one of the main causes is so many being vaccinated. When a very large number of people are vaccinated, the diseases have difficulty spreading. These diseases still exist in many countries and can return to Denmark if we don't continue to vaccinate. In Denmark all children are offered vaccinations against multiple infectious diseases. They are potentially dangerous

diseases that can cause severe illness. In a worst case scenario they can even lead to death.

Your child will be offered the first vaccination at the age of 3 months and the last vaccination is given when they turn 12 years of age.

The Childhood Immunisation Programme is voluntary and free of charge for all children. As a parent, you will receive a letter in your Digital Post when it is time for your child to be vaccinated. You must then yourself book a vaccination appointment with your doctor.



# When should I have my child vaccinated?

Here you can see which vaccinations the Danish Health Authority recommends and when it is recommended that your child get the various vaccinations. It is important that your child is vaccinated as close as possible to the recommended time. The child is often vaccinated in correlation with a general examination at the general physician.



## 3 months

Vaccination against diphtheria, tetanus, whooping cough, polio, Hib bacterium + pneumococcal disease

## 5 months

Vaccination against diphtheria, tetanus, whooping cough, polio, Hib bacterium + pneumococcal disease

Examination

## 12 months

Vaccination against diphtheria, tetanus, whooping cough, polio, Hib bacterium + pneumococcal disease

Examination

## 15 months

MMR vaccination against measles, mumps and rubella



## 4 years

MMR vaccination against measles, mumps and rubella

Examination



## 5 years

Booster vaccination against diphtheria, tetanus, whooping cough and polio

Examination



## 12 years

HPV vaccination against cervical cancer, anal cancer and genital warts (twice)

## Q&A about vaccination

### *What are the expected side effects after a vaccination?*

Vaccines, like medicine, may cause side effects. For most children, the side effects experienced will mostly be mild and quickly go away again. The most common side effects may result in fever, swelling, redness and tenderness around the injected area. It is also common that some children may become irritable, drowsy, sleep fitfully, vomit, have diarrhoea or reduced appetite. The side effects will quickly go away again.

Allergic reactions are rare. In rare cases, a lump may appear underneath the skin where the injection was given. There may be itching and a rash. This is caused by a reaction from the immune system. It is harmless and will disappear.

Especially for the MMR vaccine, which the child receives at the age of 15 months and 4 years, respectively, there may, one to two weeks after vaccination, be symptoms that are mildly similar to measles, mumps and rubella, which are the diseases the child is vaccinated against. This is due to the vaccine containing a live, weakened virus that can cause mild symptoms similar to those caused by the natural virus.

### *Is it possible to postpone the vaccination, for example in case of illness?*

It is essential that your child receives vaccinations as close to the recommended time as possible. This gives the best protection. This especially applies for vaccinations given to very young children at 3, 5, and 12 months of age to protect against diseases such as whooping cough, from which an unvaccinated child can become very ill at that age.

It may be necessary to postpone a vaccination, for example, if your child is ill and has a fever. However, it is possible for your child to get vaccinated if they have a cold. Talk to your doctor, who can help assess whether your child's vaccination is to be postponed.

### *What if my child is missing a vaccination?*

If your child has missed a vaccination, you should speak with your doctor if vaccination can be completed. You can find out which vaccinations your child has been given and when they need to be vaccinated again on the following website, [sundhed.dk](http://sundhed.dk).

### *How does a vaccine work?*

Vaccination ensures that the body's immune system is exposed to an inactive or weak part of a virus or bacterium (antigen) that cannot cause disease. However, the antigen will trigger the immune system to respond as if it were an actual virus and mount a defence such as antibodies. As a result, your child may, for example, develop a mild fever.

The immune system can then remember this if the child is later exposed to the virus or bacterium against which it has been vaccinated. The immune system recognises and kills virus or bacteria, and the child therefore does not become ill. The immune system's ability to remember the various vaccinations varies. Therefore, some vaccinations must be repeated after a few years – this applies, for example, to tetanus and diphtheria.

### *Where on my child's body will the injection be administered?*

The doctor will typically vaccinate small children in the thigh and older children in the upper arm. Although, it varies depending on the individual vaccine and the doctor's assessment.

# What vaccinations do my child need to have?

## Vaccination against diphtheria, tetanus, whooping cough, polio and Hib bacterium

The vaccination against the diseases is given as a single injection. The vaccine is given at the same time as the vaccine against pneumococcal disease, which is also a single injection. The two injections are given by the doctor in different areas on the child's body, typically on the outside of each thigh.

### When?

Your child is to be vaccinated against diphtheria, tetanus, whooping cough, polio and Hib bacterium at the age of **3, 5 and 12 months**.

When your child is **5 years** old, he or she is to be revaccinated against diphtheria, tetanus, whooping cough and polio.

## **Diphtheria**

Diphtheria is an infectious respiratory infection that is transmitted via droplets such as coughs and sneezes. Diphtheria may cause a severe sore throat, which, in the worst of cases, can be life-threatening for the child.

## **Tetanus**

Tetanus is caused by a bacterium found in soil and can enter the body through wounds, among other places. Tetanus can cause muscle stiffness and seizures, which, in extreme cases, can cause brain damage or be fatal.

## **Whooping cough (pertussis)**

Whooping cough is a highly contagious disease that can develop with violent and prolonged coughing attacks. The coughing attacks are exhausting for very young children and may, in the worst of cases, cause shortage of breath. In very rare cases whooping cough can be life-threatening to infants who have yet to be vaccinated.

## **Polio (infantile paralysis)**

Polio is an acute viral infection of the nervous system, which may, at worst, cause permanent paralysis and be life-threatening for the child if the child's breathing becomes paralysed.

## Meningitis and other severe diseases caused by Hib bacterium

Hib (Haemophilus influenzae type b) is a bacterium that, particularly in young children, can cause serious diseases and potentially life-threatening diseases such as meningitis (inflammation of the protective membranes surrounding the brain and spinal cord) and severe sore throat.

Meningitis (inflammation of the protective membranes surrounding the brain and spinal cord) caused by the Hib bacterium may also cause permanent injuries, such as hearing impairment or brain damage. At worst, it can be lethal. In connection with severe sore throat, the child may have difficulty breathing and, in the worst of cases, the child's airways may be blocked due to swelling.



## Vaccination against pneumococcal disease

The vaccine against pneumococcal disease is given at the same time as the vaccine against diphtheria, tetanus, whooping cough, polio and Hib bacterium. The doctor gives the two injections in different places on the child's body – normally on the outside of each thigh.

### When?

Vaccination against pneumococcal disease is given when your child is at the age of **3, 5 and 12 months**

The pneumococcal bacterium can lead to acute middle ear infection (otitis media) and sinus infection (sinusitis), which are rarely serious. If the bacterium spreads to the bloodstream, it may, in a few cases, cause serious illness, such as meningitis (inflammation of the protective membranes surrounding the brain and spinal cord) or blood poisoning, which, in rare cases, may be life-threatening for the child. The vaccination also helps protect elderly and vulnerable persons, who are at higher risk of serious illness caused by the pneumococcal bacterium.

## Vaccination against measles, mumps and rubella (MMR vaccination)

### When?

Vaccination against measles, mumps and rubella, also called MMR vaccination, is given when your child is at the age of **15 months and 4 years**

### Measles

Measles is a highly contagious disease, which, in rare cases, can become serious and, for example, lead to meningitis (inflammation of the protective membranes surrounding the brain and spinal cord), which may cause permanent brain damage, deafness and be lethal in the worst of cases.

Prior to the availability of the vaccine, most children in Denmark became ill with measles. Measles has become remarkably rare in Denmark; however, it continues to be common in several European and non-European countries.

Adults who have not previously been smitten or been vaccinated against measles are eligible for a free vaccination.

## Mumps

Mumps is caused by a virus that can cause inflammation and swelling of the salivary glands, a slight fever and a feeling of uneasiness. In rare cases, the virus can lead to meningitis (inflammation of the protective membranes surrounding the brain and spinal cord), which may, at worst, be lethal.

Mumps can cause inflammation of the testicles in boys during or after puberty. This can result in a temporary or permanent reduction in sperm production, which may reduce the ability to have children.

## Rubella

Rubella is caused by a virus that is typically characterised by mild illness in children with a slight fever, common cold symptoms and a red rash. We vaccinate children against rubella to prevent them from getting the disease and infecting pregnant women. If a pregnant woman gets rubella in the first half of her pregnancy, there is a risk of serious malformations in the foetus.

Women of childbearing age can also be vaccinated against rubella free of charge if they have not already had the disease or been vaccinated.

Rubella no longer occurs in Denmark.

## Vaccination against cervical cancer, anal cancer and genital warts (HPV vaccination)

### When?

HPV vaccination is recommended for both boys and girls at the age of **12 years**.

The child must have 2 vaccinations at an interval of minimum 5 months and maximum 13 months.

If the intervals are not observed, or if the child has reached the age of 15 years before the first injection, a total of 3 vaccinations must be given.

HPV is a virus that is primarily transmitted through sexual contact. Vaccination should therefore preferably be given before sexual debut. Infection with HPV is very common, especially among young people. Often, people do not have any symptoms, and, in most cases, the HPV infection goes away on its own. In some people, however, the virus does not disappear and may result in cellular changes which can cause cancer many years later. Some types of HPV may cause genital warts, while other types may cause cervical cancer or more rare cancer types, such as cancer of the rectum.

There are many types of HPV that may cause infection. The vaccination protects against the types of HPV that cause the majority of cases that develop into cancer.

## Find more information

Read more about the Danish Childhood Immunisation Programme and the diseases against which we vaccinate on the Danish Health Authority's website:  
[www.sst.dk/da/boernevaccination](http://www.sst.dk/da/boernevaccination)



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