

# Everything about Vaccination and Covid-19

What is a vaccination?

A vaccination can protect children, youth and adults from diseases: It prepares our immune system against certain pathogens. In the event of later contact with the pathogen, the body can then quickly and effectively defend itself against these pathogens.

History

Already in 200 BC in China, smallpox was dried and sniffed by healthy people so as to not fall ill themselves. In the 1800s, the vaccination against smallpox was developed in Europe. People realised, that being infected with smallpox once protects against further infection through smallpox, which means it makes them immune. Therefore, researchers tried to protect people through deliberate infections. Thanks to global vaccinations, there have been no more smallpox infections since 1977 and the disease can be considered to be eradicated.

Covid- 19

The SARS-CoV-2-Virus (Corona Virus) causes the COVID-19 illness. COVID-19 is very infectious. Those affected then complain of a cough, fever, running nose and sore throat. But there are also serious illnesses. Those affected can then no longer breathe. Or they get ill with pneumonia. **More than 95,000 people** in Germany had died of or with COVID-19 by mid-October 2021.

Covid-19 vaccination

**Vaccines in Germany are safe.** This applies to all vaccines, including the corona vaccines.

**Studies:** Vaccines are thoroughly tested in clinical studies before they are allowed to be used. The vaccines are continuously to be reviewed even after they have been approved. New findings are considered.

**Vaccine reaction:** It is normal for the body to react after a vaccination. You may feel pain on the part where you get the injection. Or you may feel tired and exhausted.

Even a fever and chills are normal. These symptoms usually go away after **2 to 3 days**.

**Side effects:** There are very rarely other side effects such as inflammation of the heart muscle. Very rarely means that less than **0.01%** of those vaccinated have this side effect. If the side effects do not go away after a few days, please see your family doctor.

**No long-term harm:** There is no evidence that vaccination causes long-term harm. Vaccination also does not affect the ability to have children.

**The vaccination is voluntary and are available free of any costs.**

At the moment, there are 4 approved vaccinations in Germany:

- **Comirnaty (BioNTech/Pfizer)**
- **Moderna**
- **AstraZeneca**
- **Johnson & Johnson**

Questions and Answers

**Why can COVID-19 vaccines be approved so quickly and at the same time be safe?**

In order for a vaccine to be approved, its quality, safety and effectiveness must be proven in clinical studies (phase 1-3). In addition, its benefits must clearly outweigh the risks. COVID-19 vaccines are also developed and approved according to this principle. However, different methods lead to saving time enormously.

# 1 Saving time through early and continuous scientific advice to drug authorities.

# 2 Saving time through certain assessment procedures that allow the authorities to carry out preliminary assessments (so-called rolling review procedures). The evaluation process starts early and questions can be answered earlier.

# 3 Saving time by combining clinical trials that are otherwise often carried out one after the other.

# 4 Time saved through research into other coronaviruses

## **Vaccination with genetic material sounds dangerous to me. What is an RNA vaccine?**

mRNA vaccines contain small parts of the genetic material of the coronavirus SARS-CoV-2. During the vaccination, these parts, a kind of blueprint, are injected into a person. The genetic components of the virus are broken down in the body after a short time. They cannot be built into our genome. Our genetic material, the DNA, lies in the cell nucleus. And the mRNA vaccine cannot access that. Vector vaccines like the one from Johnson & Johnson contain DNA and get into the cell nucleus. However, the virus DNA and the human DNA cannot combine in the cell nucleus.

## **Can I have kids after the vaccination?**

No COVID vaccine has harmed human fertility in the studies. People who want to have children can therefore also be vaccinated against COVID-19 without risk.

## **How do I know there are no late side effects?**

There is no 100% security to any vaccination or medication. However, tests to date have only shown serious late-stage side effects in very rare cases. The vaccines are continuously monitored by the authorities.

## **I am young and feel fit. Do I even need the vaccination?**

Young healthy people can also contract COVID-19. Sometimes even seriously. A vaccination protects the vaccinated and everyone else, regardless of their age.