

Protective Vaccination against the Flu (Influenza)

In **Germany**, seasonal influenza waves usually occur in the winter semester following the turn of the year. In a comparative analysis of the flu waves of the last three seasons, the rapid decline in influenza activity is conspicuous for the past year 2020 as is the absence of a flu wave for early 2021. Certainly, the measures taken to contain the Corona pandemic have also been effective in limiting the spread of influenza viruses.

The flu virus as well as corona viruses are transmitted among humans via airborne droplet infection, i.e., when coughing or sneezing on another person. However, shaking hands can also lead to a transmission of viruses. A rather moderate pathogenesis without fever is rather common and favors a rapid spread of the flu.

The characteristic flu begins two to three days after infection, suddenly (within hours) with a rapid deterioration of general condition and high fever, as well as a dry and painful cough and severe headache, limb and muscle pain. In contrast to the simple common cold, a rhinitis seldom occurs. Recovery takes place within days to weeks.

Vaccine composition 2021/2022 for hen's-egg-culture-based vaccines according to WHO (northern hemisphere):

The composition of strings differs in two positions compared to 2020/2021:

- | | |
|--|---|
| ○ A/Victoria/2570/2019 (H1N1)pdm09-like virus – 15 µg HÄ | ○ B/Washington/02/2019 (B/Victoria lineage)-like virus 15 µg HÄ |
| ○ A/Cambodia/e0826360/2020 (H3N2)-like virus– 15 µg HÄ | ○ B/Phuket/3073/2013 (B/Yamagata Lineage)-like virus 15 µg HÄ |

The most important protection from the flu is the Influenza vaccination, which should be repeated annually.

Vaccination is particularly recommended for people who have an increased risk of severe disease or who are particularly susceptible to influenza infection. The influenza vaccines recommended for adults in Germany are inactivated vaccines. Thus, the vaccination itself cannot cause the disease, nor can vaccine viruses be passed on to third parties. The vaccination is carried out as a single inoculation into the upper arm muscle, the most favourable time being September to November. The protective effect begins about 1-2 weeks after vaccination and prevents more than half of all flu infections.

The Standing Committee on Immunization at Robert-Koch-Institute (STIKO) recommends vaccination for:

- **Individuals with an increased health risk** as a result of a underlying disease (e.g. asthma or heart disease, diabetes, liver or kidney disease or MS)
- **All pregnant women**, STIKO recommends vaccination as of the second trimester of pregnancy
- **Individuals with an increased occupational risk, such as medical personnel**
- **Individuals who may be a source of infection** for persons at risk under their care
- Individuals with increased risk via direct contact to poultry and wild birds
- Travelers according to risk and vaccine availability, in the event of an impending or expected epidemic in accordance with the recommendations of the health authorities
- **Individuals above the age of 60**, a high-dose vaccine is recommended. However, the influenza vaccination with the standard dose is also possible: when vaccinated with the standard dose, a slightly weaker protective effect is likely.
- Children and adolescents aged 2-17 years for whom influenza vaccination is indicated, vaccination is recommended either with nasally administered quadrivalent live influenza vaccine (LAIV) or with the inactivated influenza vaccine (IVV) if there is no contraindication.

Possible vaccination reactions and side effects

The flu vaccination is generally well tolerated; even pregnant women have been vaccinated for many years in the USA. Occasionally, the stimulation of the immune system after vaccination may cause redness or swelling at the injection site, which can also be painful. Similarly, general symptoms such as chills, fatigue, nausea or muscle aches may occur in the first three days after the vaccination. Such vaccination reactions usually subside after one to three days.

Side effects are very rare. In less than one in 10,000 people vaccinated, allergic reactions were observed on the skin and in the bronchi. Small blood vessels may also very rarely become inflamed, or the number of platelets (responsible for blood clotting) can temporarily decrease.

Important note: If you have a proven severe allergy to chicken egg protein, you should not be vaccinated against influenza.

Further detailed and reliable information can be found on the Internet at [informedhealth.org](https://www.informedhealth.org) - topic flu vaccination