

## Seasonal Flu Vaccine (Influenza)

In **Germany**, seasonal influenza waves usually peak around the winter season following the turn of the year. Many symptoms of influenza are quite similar to a common cold. The main difference is that a common cold is an airway condition, whereas influenza causes systemic symptoms. It often develops quickly and could lead to serious symptoms, which usually improve within a week.

A mild course of influenza infection without fever can be common and facilitates the rapid spread of the disease. The flu virus as well as corona viruses are transmitted among humans via airborne droplets, i.e. through coughing or sneezing on another person. Hand shaking can also lead to a transmission of these viruses.

The characteristic flu symptoms begin two to three days after infection, characterized by **sudden** onset (within hours) with a **rapid systemic deterioration** and **high fever**, as well as a **dry and painful cough** and **severe headache, limb and muscle pain**. In contrast to the common cold, **rhinitis is not a frequent symptom**. Recovery takes days to weeks, fatigue and coughing could persist even longer.

**The best protection against the flu is the Influenza vaccination, which should be repeated annually.**

Vaccination is especially recommended for people who are at 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. This means, 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 between September and November. The protective effect begins about 1-2 weeks after vaccination and prevents against more than half of all flu infections.

**Vaccine composition in 2023/2024 of egg-based vaccines according to the WHO (northern hemisphere):**

The strain composition differs in only one position compared with 2022/2023:

- |   |   |
|---|---|
| ○ /Victoria/4897/2022 (H1N1)pdm09-like virus 15 µg HÄ | ○ B/Austria/139417/2021(B/Victoria lineage)-like virus 15 µg HÄ |
| ○ A/Darwin/9/2021 (H3N2)-like virus 15 µg HÄ          | ○ B/Phuket/3073/2013 (B/Yamagata lineage)-like virus 15 µg HÄ   |

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

- **Individuals with an increased health risk** as a result of an underlying disease (e.g. asthma, heart disease, diabetes, liver or kidney disease or MS)
- **All pregnant women**, STIKO recommends vaccination from the second trimester of pregnancy onwards
- **Individuals with an increased occupational risk, such as healthcare 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
- **For individuals aged 60 and above**, a high-dose vaccine is recommended. The influenza vaccine with the standard dosage is also possible: when vaccinated with the standard dose, a slightly weaker protective effect can be expected.
- Children and adolescents aged 2-17 years of age for whom influenza vaccination is indicated, vaccination is recommended either with the nasally administered quadrivalent live influenza vaccine (LAIV) or with the inactivated influenza vaccine (IVV) as long as there is no contraindication.

## Possible vaccination reactions and side effects

The flu vaccine is generally well tolerated, even pregnant women have been regularly vaccinated for many years in the USA. Occasionally, the stimulation of the immune system after vaccination may cause redness or swelling locally at the injection site, which may be painful. Similarly, systemic 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 vaccinated individuals, allergic reactions were observed on the skin and in the airways. Small blood vessels may also become inflamed in rare circumstances, 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 receive the influenza vaccine.

For further detailed and reliable information on the influenza vaccine, please visit <https://www.impfen-info.de/mediathek/printmaterialien/grippeimpfung/> (select language: english) or <https://www.informedhealth.org/influenza.html> or [www.rki.de/EN/Content/infections/infectious\\_diseases\\_node.html](http://www.rki.de/EN/Content/infections/infectious_diseases_node.html) (RKI fact sheets on vaccination)