



Vaccination against Corona: Medical officer answers the most frequently asked questions

Currently, many people have questions or feel unsure about coronavirus vaccination. In this context, Gesundheitsregion^{plus} has collected some of the most frequently asked questions and put them to Dr. Heidi Brandl, a doctor who works at the public health department in Passau.

Why can a coronavirus infection be dangerous?

During an infection, the virus enters the cell and triggers certain defence processes. In some cases, the body's immune system overreacts, resulting in a severe form of the disease that causes organ damage. Viruses can also attack vital organs; most recently, we have even seen cases with destroyed blood vessels in the brain.

Should I be worried about the coronavirus vaccines and possible long-term side effects?

As of 21 November, 58.6 million people in Germany had received at least one dose of vaccine. By 10 November, a total of 44 million people had received Biontech's mRNA vaccine.

More than **one billion people** worldwide have already been vaccinated with an mRNA vaccine manufactured by Biontech/Pfizer or Moderna. It has been proven that these vaccines are extremely safe. (...) To date, heart inflammation has been recorded as a rare side effect in young men, which then typically cleared up spontaneously.

Is there any evidence that these mRNA vaccines will harm my body and alter my genetic make-up?

The mRNA in the vaccine does not damage the human genome. The mRNA enters the muscle cells as a blueprint, where the spike proteins of the coronavirus are then built and presented to the immune system. Both antibodies and the cell-bound defences are activated. The mRNA does not enter the cell nucleus and is completely degraded within hours.



Does it make sense to wait until inactivated vaccines are available?

It will take too long to develop protein-based vaccines. Right now, the risk of becoming infected in the next few weeks is extremely high. Therefore, the opportunity to be vaccinated should be taken as soon as possible.

Currently, we are seeing a large number of infections among vaccinated people. Does this mean the vaccines are ineffective?

The latest infection rates among vaccinated people clearly demonstrate the high efficacy of the COVID-19 vaccines. Vaccination prevents severe symptoms if you are infected with the virus. In addition, vaccinated people are less likely to require hospitalisation if they become infected. Despite the fact that the vaccines' effectiveness decreases over time, they still offer good protection against severe illness.

Among unvaccinated people, there are significantly more cases that require hospital treatment. The risk of contracting Long Covid is also significantly higher for unvaccinated people than for vaccinated people.

Which age group is most at risk?

Most hospital admissions in Germany are in the 60+ age group. Since 13% of this group is unvaccinated, the risk is particularly high for these people.

To prevent or mitigate another wave of the disease, 85% of 12–59 year olds and 90% of 60+ year olds need to be vaccinated. We are still a long way from achieving this goal.

Why, in particular, are young women anxious about being vaccinated?

The coronavirus vaccines have been linked with a risk of infertility on social media. However, there is no scientific evidence whatsoever to support such claims.

No link has been identified between the vaccines and either miscarriages or complications in pregnancy. On the contrary, unvaccinated pregnant women face an increased risk of falling seriously ill in the event of a coronavirus infection. Vaccination can prevent this in the vast majority of cases.

There is also talk about the vaccines' influence on the menstrual cycle. It's true that in some cases menstrual bleeding can be delayed. However, this phenomenon is



associated with all kinds of vaccines. The cycle then returns to normal again after some time. The number of pregnancies in countries with particularly high vaccination rates, such as Portugal, has not changed.

Are there any good reasons not to get vaccinated?

Only in extremely rare cases. For example, if you have a severe intolerance/allergy to the vaccine's components. If you are worried or anxious about this, I recommend contacting a specialist doctor or clinic. In most cases, any concerns you may have can be addressed. The risk of a severe case of COVID-19 is significantly higher.

Who needs a booster vaccination?

Everyone over 18 years of age whose last coronavirus vaccination was more than five months ago.

Should you have your antibody levels checked beforehand?

That is not necessary. The relevance of antibody levels with regard to the timing of a booster vaccination is unclear at present.

Why do I need a booster vaccination?

The third dose of vaccine not only protects the recipient but also prevents the further spread of the virus. Compared to double-vaccinated people who received their last dose over five months ago, the percentage of triple-vaccinated people avoiding severe illness (81%) or death (92%) following infection is significantly higher. Scientists believe that three doses of coronavirus vaccine are necessary to achieve full protection. German data from the Robert-Koch Institut (RKI) also confirms that this vastly reduces the likelihood of developing symptoms and severe illness. The booster vaccination takes effect after about five to seven days.

Are the vaccines' side effects being concealed from the public?

No, on the contrary, every side effect that occurs is recorded and every death is carefully investigated by an independent monitoring body to check for any link to the vaccination programme. The Paul Ehrlich Institute continuously updates its [safety reports](#) on the COVID-19 vaccines.

Some people have fallen ill immediately after receiving their first dose of the vaccine. Has the vaccine compromised their immune system?

No, immune cell activity is detectable very soon after a coronavirus vaccination. However, with the predominant delta variant, the protective effect only occurs once all required doses of the vaccine have been received. If there is an outbreak of COVID-19 in the local area, the risk of contracting the virus is extremely high. This means it is all the more important to follow the AHA rules and social-distancing guidelines until fully vaccinated.

Every vaccinated person counts – this is our only way out of the pandemic. Make an appointment with your GP or at a vaccination centre.



An interview with Dr. Heidi Brandl – a doctor at the public health department, specialist in public health (MPH) and head of the department for prevention and health promotion