

## **Answering Your Questions about the Vaccine**

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### **Question 1: I am autoimmune compromised. Will the vaccine trigger my condition?**

Your concern is very valid, and it's shared by many people who are autoimmune compromised and immunosuppressed. In fact, a study done in February 2021 which researched the "perspective of patients with autoimmune diseases on COVID-19 vaccination" noted that many of their participants who had autoimmune conditions had "concerns about adverse events and aggravation of the underlying autoimmune disease."

There will always be a chance that the vaccine might trigger your condition because the clinical trials that tested the effectiveness of vaccines included very few people who are immunosuppressed and/or autoimmune compromised, and the people that were included represent a very narrow range of autoimmune conditions.

According to the National Advisory Committee on Immunization (NACI), interpreting the data from clinical trials is tricky because people living with different autoimmune conditions have very different amounts of autoimmunity "depending on the underlying condition, the severity and progression of disease, and use of medications that impact immune function."

The first study that I mentioned was published in the Lancet, which is a well-respected scientific journal written and reviewed by experts. The authors of that study concluded that "although data are still scarce, results of previous studies on vaccines against other viruses are reassuring; few adverse events and disease flares in patients with autoimmune diseases have been described."

Considering that "previous studies suggest that these patients [who have autoimmune conditions] can be at increased risk of severe COVID-19 disease", the authors of this study say that "the possibility of the occurrence of adverse events should therefore not be a reason to not recommend vaccination against SARS-CoV-2 in patients with autoimmune diseases."

In other words, according to these medical experts, doctors should not recommend against vaccination based on the concern that the vaccine might trigger their autoimmune condition. The risks of getting COVID-19 are more severe than the risk of COVID-19 vaccines triggering a flare-up.

A study in another well-respected, peer-reviewed scientific journal called Nature also mentions that "disease activity was not increased after vaccination in studies evaluating vaccination of patients with an autoimmune inflammatory rheumatic disease (AIRD)."

After reviewing the data from clinical trials and real-world evidence on mRNA vaccines, NACI had this to say: “Emerging safety data from observational studies in individuals with autoimmune conditions indicates that the frequency and severity of adverse events in this population is comparable to that of individuals without autoimmune conditions and what was reported in clinical trials.”

In other words, the data that is currently available show that negative side effects from mRNA COVID-19 vaccines are similar for both people who have autoimmune conditions and people who don't. The Moderna and Pfizer vaccines are examples of mRNA vaccines. However, safety data for people with autoimmune conditions is not available for viral vector vaccines, such as AstraZeneca. NACI also says that “The efficacy and effectiveness of COVID-19 vaccines in individuals with autoimmune conditions is unknown”, however “immune responses were diminished only in participants who were also receiving immunosuppressive therapy.”

People who are immunocompromised, including people who are receiving immunosuppressant therapy “may have a diminished immune response to the vaccine”, so NACI recommends getting both doses of a COVID-19 vaccine “at least two weeks before initiation of immunosuppressive therapies where possible.”

Healthline recommends that people with autoimmune conditions “may need to work with their physician to adjust the timing of their medications around their vaccination.”

Sources:

1. <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html>
2. [https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913\(21\)00037-0/fulltext](https://www.thelancet.com/journals/lanrhe/article/PIIS2665-9913(21)00037-0/fulltext)
3. <https://www.nature.com/articles/nrrheum.2014.206>
4. <https://www.healthline.com/health-news/what-to-expect-from-a-covid-19-vaccine-if-you-have-a-chronic-condition?c=386147949072>

**Question 2: I have Guillain-Barré syndrome (GBS). The first dose of the COVID-19 vaccine triggered an attack. In my case, how long should I wait for the second dose?**

In an interview with GBS/CIDP Foundation International, neurologist Dr. Peter Donofrio said that, in general, an ideal time for people who receive intravenous immunoglobulin (IVIg) to receive the COVID-19 vaccine does exist. It depends on where they're at in the infusion cycle of IVIg.

He says that most experts believe that you should wait to get the COVID-19 vaccine at least a week or two weeks after you've received IVIg. Also, after you've received the COVID-19 vaccine, you should wait at least a week or week and a half before getting IVIg again.

Dr. Donofrio says that this is because IVIg gives your body “an infusion of antibodies that may block the effectiveness of the vaccine that you're getting”, which includes a number of

vaccines, not only COVID-19 vaccines. However, he comments that this rationale is theoretical and hasn't been scientifically proven.

For people whose GBS is active or recent, Dr. Donofrio still recommends getting vaccinated because "if you have Guillain-Barré recovering, the last thing you want is a natural infection from COVID... particularly if you're older."

For more guidance on your specific situation, please feel free to contact your general practitioner, and if you don't have one, you can call Telehealth Ontario at 1-866-797-0000 and ask a registered nurse for their opinion.

Source:

1. <https://www.gbs-cidp.org/covid-19-vaccines-and-the-gbscidp-community/>, specifically <https://www.youtube.com/watch?v=lxZaoPQ1t4M&t=685s>

### **Question 3: What do we know about the Pfizer vaccine's efficacy against the Delta plus variant?**

Many health experts have said that the Delta variant of COVID-19 (first identified in India) is more resistant to COVID-19 vaccines. Since then, the Delta variant has mutated again to become the Delta plus variant, which has a mutation called "K417N."

This mutation in the spike protein of the virus is also seen in the Beta variant of COVID-19 (first identified in South Africa). Like the original Delta variant, the Beta variant has also been able to escape the antibodies given by COVID-19 vaccines. So, there's a chance that COVID-19 vaccines won't protect against the Delta plus variant as much as the original strain of COVID-19.

A study by Public Health England was recently published on June 25. It mentioned that the results from "very preliminary" studies on vaccine efficiency against the Delta plus variant is "reassuring, however further testing is required." The study also notes that "further investigations of K417N genomes are being undertaken."

For the original Delta variant, not the Delta plus variant, according to NACI's most recent update, "emerging research" suggests that two doses of the Pfizer vaccine is 87.9% effective against symptomatic illness, and two doses of the AstraZeneca vaccine is 59.8% effective against symptomatic illness ([page 51](#)).

"Emerging research" means that these studies haven't been confirmed yet, so keep in mind that these numbers might change later. The document didn't mention anything about the effectiveness of the Moderna or Janssen/Johnson & Johnson vaccines against the Delta variant.

Sources:

1. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/997418/Variants\\_of\\_Concern\\_VOC\\_Technical\\_Briefing\\_17.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/997418/Variants_of_Concern_VOC_Technical_Briefing_17.pdf)

2. <https://scroll.in/article/999282/explained-whats-the-delta-plus-variant-and-will-covid-19-vaccines-work-against-it>
3. <https://www.theguardian.com/world/2021/jun/15/the-covid-delta-variant-how-effective-are-the-vaccines>
4. <https://www.canada.ca/content/dam/phac-aspc/documents/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines/recommendations-use-covid-19-vaccines-en.pdf>

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If you think you may be experiencing symptoms of COVID-19, take the self-assessment at [www.ontario.ca/coronavirus](http://www.ontario.ca/coronavirus). Follow all directions from your medical provider or your local health unit at the following phone numbers:

Telehealth Ontario: 1-866-797-0000

Toronto Public Health: 416-338-7600

Peel Public Health: 905-799-7700

Durham Region Health Department: 905-668-7711

York Region Public Health: 1-877-464-9675