

NLCC After Sunday Podcast - COVID 19 and Vaccine Hesitancy Q & A

Please note that information about the COVID-19 virus is frequently and rapidly evolving. The info below is current as of May 3rd but might change!

Q: Can I get COVID-19 from one of the immunizations?

A: No, this will not happen. None of the vaccines being used in Canada contain any live virus¹. This is the huge benefit of acquiring immunity against COVID-19 from a vaccine versus the actual virus - we get the immunity without being at risk of suffering a severe or fatal case of COVID-19 or suffering any long term effects that are possible from even a mild cases of COVID-19. Of note, is that it takes about 2 weeks for your immunity against COVID-19 to develop so if you were exposed to the virus shortly before or during this time, you may still contract COVID-19².

Q: I've been concerned about the use of thimerosal and aluminum in previously developed immunizations. Do any of the COVID -19 immunizations contain these ingredients?

A: No, none of the vaccines currently being used contain thimerosal or aluminum. Check out the endnotes for links to the exact ingredients in each vaccine³.

Q: I have pre-existing health conditions and/or allergies. Should I still get immunized?

A: Because many pre-existing health conditions put people at higher risk for severe or fatal COVID-19 illness, BC has been offering immunizations to people with conditions considered 'clinically extremely vulnerable' and born in 2005 or earlier during phase 3 of the vaccine roll-out. While each individual should consult with their doctor about their specific condition, medical professionals are for the most part recommending those considered extremely vulnerable to be immunized⁴

Currently, the only health reason to explicitly not get the COVID-19 immunization is if you have severe allergies to any components of the vaccine or have had a previous anaphylaxis reaction to a COVID-19 immunization⁵. The most common ingredient that could cause an allergic reaction in the mRNA vaccines (Pfizer and Moderna) is called polyethylene glycol (PEG) which is an ingredient found commonly in other products such as some bowel preparations, laxatives, cough syrups, cosmetics, contact lens solution, skin care products, and in some food and drinks⁶.

Polysorbate 80 is the most common allergy inducing ingredient in the AstraZeneca and Johnson & Johnson immunizations. This ingredient is found in cosmetics and other medical preparations such as vitamin oils and tablets⁷

Severe allergic reactions are rare at about 1 out of every 1 million immunized.⁸

Q: Should I be concerned about potential long term side effects of an mRNA vaccination since they haven't been around as long as other types of vaccinations? (Pfizer and Moderna)

A: Great question! Because the vaccines are new, we don't have concrete or absolute information about long term effects. We have to make the decision based on the things that we DO know and hold the tension of what we do not know for sure. What we DO know is that the technology has been studied for decades (against other diseases and cancer) and long term side effects have not been shown⁹.

Based on the dozens of years of studies available, serious side effects generally occur within the first 6 weeks after receiving a vaccination. Because of this, the FDA asked the drug companies to provide data from their clinical trials about the safety of their vaccines for 8

weeks after the last dose before deeming it safe for use. As mentioned in the podcast, our cells break down the mRNA quickly in the cells and even if for some reason it didn't get broken down, within a week of the injection, the mRNA stops making proteins regardless of how the body is responding to the immunization so the mRNA isn't active fairly soon after the injection¹⁰.

Check out the endnotes for a great video by Dr. Paul Offit in which he explains further why the COVID-19 vaccines are not expected to cause long-term side effects¹¹.

Q: I've heard of something called 'long haulers' - does this have to do with any long term effects from the vaccine?

A: 'Long haulers' is the current title given to people who have had a COVID-19 infection - even a mild case - who still have health problems for weeks or months after being free of the virus. It cannot be caused by immunizations but only from contracting the live COVID-19 virus. These symptoms can include, but are not limited to persistent fatigue, joint, muscle, or chest pain, cognitive problems such as having trouble concentrating and remembering, headaches, mental health challenges, breathing, and cardiac challenges¹². Many people in BC are struggling with this, enough so that 3 long hauler specific clinics have opened (at St. Paul's and Vancouver General Hospital in Vancouver and the Jim Pattison Outpatient Care and Surgery Centre in Surrey).

Q: I have a good immune system! Statistically speaking, and because I have a good immune system, I will likely be ok if I contract COVID so doesn't that make it a bigger risk to get the vaccine versus taking my chances with how sick I might get?

A: As discussed in the podcast, we must consider the possible risks and benefits, especially when there are factors that we do not know for sure, such as the possible long term effects of the vaccines and how we will fair if we contract COVID-19. When considering the risks of vaccines, it is wise to concurrently consider the risks of COVID-19 as saying no to a vaccine also means accepting the risks that come with potentially becoming sick with COVID.

Currently in BC, there are number of variants of concern that spread easier and may cause more severe cases of COVID-19¹³. Hospitalizations in younger age groups is much higher now than ever before in the pandemic.

One possible explanation for how hard the new variants are hitting younger people actually has to do with how well their immune systems work! Doctors have found patients with good immune systems struggling because of something called 'cytokine storm.' Basically, the immune system starts fighting the COVID-19 virus way more than it actually needs to! Think of it like sending a SWAT team to a mild fender bender at slow speed. Interestingly, for most hospitalized COVID-19 patients, steroids are prescribed to help their immune systems actually simmer down a bit¹⁴. So just because you have a good immune system, it doesn't actually help determine ahead of time at all how you will fair against COVID-19.

Q: How likely is it that I will get a serious blood clot from the AstraZeneca (AZ) vaccine?

A: You've probably heard a lot about this in the news lately! As evidence of possible blood clots resulting from the AZ vaccine surfaced, countries halted its use. As more evidence became available, this vaccine has been slowly rolled out by age groups, after evidence suggested that the risks of blood clots did not outweigh the benefits of receiving this vaccine. To date, millions of doses of the AZ vaccine have been administered¹⁵. The current estimation used in BC of risk of a serious blood clot developing from the AZ vaccine is 1 in 100,000¹⁶. While this is a risk that should not be ignored, it is prudent to consider the possible risks of blood clots from other sources to put the risk from AZ into perspective.

It is nearly impossible to do direct comparisons as previous health history, age, gender, lifestyle etc. are all factors when it comes to the risk of blood clots. Additionally, the types and severities of blood clots differ. With that being said, let's take a look at some stats!

Risk of blood clots¹⁷:

AstraZeneca: 10 in 1 million = 0.001%

General population: 1-2/1000 per year = 0.1-0.2%

Flying greater than 4 hours: 1/4600-1/6000 = 0.017-0.022%

Contracting COVID-19: 1%

Hospitalized with COVID-19: 5%

In the ICU with COVID-19: up to 20%

Based on current research, we are at a greater risk of developing a blood clot from COVID-19 than from the vaccines.

Q: Which vaccine is best? Should I get AstraZeneca now or wait for Pfizer or Moderna later?

A: You may have heard people say, "The first vaccine you are offered is the best vaccine!" In a large way, this is true. While each of the vaccines have a different efficacy rating from their clinical trials, these trials were done at different times and in different locations in the world. Perhaps because of these factors, Pfizer and Moderna might have higher efficacy ratings from the original COVID-19 virus, but Johnson & Johnson and AstraZeneca might have higher effectiveness against variants. It is too soon to say whether one is going to be better, overall, than another. If you have some time, this 7 minute video does a great job of explaining it all! Check out: <https://www.youtube.com/watch?v=K3odScka55A>

British Prime Minister Boris Johnson said of the vaccines, that they are all safe, but "the thing that isn't safe is catching COVID."

Q: How do I get immunized?

A: Thank you for making this choice! You can register online or by phone. Visit <https://www.getvaccinated.gov.bc.ca/s/> to get started.

Q: I've decided to not get immunized. How can I help end this pandemic?

A: Thank you for wanting to be a part of the solution! Please follow the public health orders. Stay home when you are sick. Get tested if you have ANY symptoms of COVID-19. Stay informed! Don't meet indoors with people outside of your household. Don't travel. Basically, do everything you can to ensure that if you contract COVID-19 that you will not pass it on to anyone else.

¹ <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/awareness-resources/know-vaccine.html>

² Refer to the “After the vaccine” section at <https://immunizebc.ca/covid-19-vaccine-frequently-asked-questions>

³ Pfizer info and ingredients: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/pfizer-biontech.html#a1.1>

Moderna info and ingredients: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/moderna.html>

AstraZeneca info and ingredients: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/astrazeneca.html>

Johnson & Johnson info and ingredients: <https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/vaccines/janssen.html>

⁴ For a list of all conditions considered ‘clinically extremely vulnerable’ visit here: <https://www2.gov.bc.ca/gov/content/covid-19/vaccine/cev>

⁵ <https://immunizebc.ca/ask-us/questions/are-there-certain-groups-people-can't-safely-receive-covid-19-vaccines-because>

⁶ See question 30 at http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Immunization/Vaccine%20Info/COVID-19_Immunization_Program_QandA.pdf

⁷ BC Healthlink File about Covid - 19 Vaccines can be viewed at: <https://www.healthlinkbc.ca/healthlinkbc-files/covid-19-vaccines>

⁸ Click above link for more info on possible reactions.

⁹ Further info addressing concerns about long term effects: <https://immunizebc.ca/ask-us/questions/are-there-long-term-side-effects-caused-mrna-covid-19-vaccines-how-do-we-know>

¹⁰ The Children’s Hospital of Philadelphia has more Q & As, including more info about long term side effect concerns: <https://www.chop.edu/centers-programs/vaccine-education-center/making-vaccines/prevent-covid>

¹¹ <https://www.chop.edu/centers-programs/vaccine-education-center/video/what-are-the-long-term-side-effects-of-covid-19-vaccine>

¹² Learn more about long haulers at <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-long-haulers-long-term-effects-of-covid19>

¹³ Variants of Concern in BC: <http://www.bccdc.ca/health-info/diseases-conditions/covid-19/about-covid-19/variants>

¹⁴ Video describing why the immune system sometimes works too well and causes harm amidst a COVID-19 infection: <https://www.youtube.com/watch?v=xnlCjudODyI>

¹⁵ Thorough summary of vaccination rates and types worldwide: <https://ourworldindata.org/covid-vaccinations?country=~CAN>

¹⁶ Refer to BC Healthlink files: <https://www.healthlinkbc.ca/healthlinkbc-files/covid-19-vaccines>

¹⁷ ¹⁷ <https://thrombosiscanada.ca/covid-19-vaccines-and-blood-clots-faqs/>