

## Can I get my first dose from one vaccine brand, and my second dose from another brand?<sup>1-5</sup>

- If you have received either Pfizer or Moderna mRNA vaccine as your first dose, you can receive either Pfizer or Moderna mRNA vaccine as your second dose depending on availability.<sup>5</sup>
- You received first dose of AstraZeneca vaccine:
  1. If you developed Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT, a rare type of blood clot that is associated with low platelet counts) after first dose of AstraZeneca vaccine, you are strongly recommended to receive an mRNA vaccine as the second dose.<sup>5</sup>
  2. If you did NOT develop VITT or experience symptoms of thrombocytopenia:
    - You are recommended to receive a second dose of mRNA vaccine (i.e. Pfizer or Moderna) as current data show that a subsequent mRNA vaccine dose offers a strong immune response and is safe for you.
    - You may choose to receive a second dose of AstraZeneca vaccine, especially if you have known allergy to one of the mRNA vaccine ingredients.

**Note:** if you have received two doses of AstraZeneca vaccine, you are considered fully protected against COVID-19 infection.

- Current data on effectiveness and safety of mixing first dose AstraZeneca with a second dose Pfizer vaccine show<sup>1,2,5</sup>:
  - Similar or increased effectiveness against COVID-19.<sup>1,2</sup>
    - Mixing doses may increase protection against variants of concern.
  - Similar safety profile to two dose AstraZeneca or Pfizer vaccination.<sup>1,2</sup>
    - You can expect to experience less, similar or more mild-to-moderate side effects within 48 hours after receiving a second dose mRNA vaccine, as compared to first dose AstraZeneca vaccine.
    - All of the potential side effects are not serious and will go away a few days after you received the second vaccine shot.
- The data on effectiveness and safety of mixing vector-based and mRNA vaccines continue to evolve as ongoing research studies continue. Please refer to the Public Health Agency of Canada website for the latest recommendation:

<https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html#a7.4>

- Please refer to your provincial government website on the latest vaccination plan. For the province of Ontario, please visit: <https://covid-19.ontario.ca/covid-19-vaccines-getting-your-second-dose#accelerating-second-doses>
- Bring the receipt from your first vaccine appointment to your second vaccine appointment. This way, your nurse/ pharmacist/healthcare provider will know which vaccine you have received before.

## Will I get blood clots from AstraZeneca vaccine?

- A rare type of blood clot that is associated with low platelet counts (thrombocytopenia) and may occur in the brain (such as cerebral venous sinus thrombosis) or elsewhere may be linked to the AstraZeneca COVID-19 vaccine; this side effect is called Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT).<sup>6</sup>
- Most cases of VITT were among women under 55 years of age, while some cases were reported among men as well.<sup>5,7</sup>
- **The symptoms of VITT generally occur between 4 and 28 days after you have received the AstraZeneca vaccine shot.**<sup>5-7</sup>
- The symptoms of VITT are related to where the blood clot may be located and can include the following:
  - Shortness of breath

- Difficulty speaking
  - Seizure
  - Severe headaches or blurred vision that does not go away
  - Chest pain
  - New serious swelling, pain or color change in an arm or leg
  - Difficulty moving part of your body
  - Serious abdominal pain that goes on for days
  - Skin bruising (other than at the site of vaccine shot)
- If you had a first dose AstraZeneca vaccine without experiencing VITT, you can safely take any of the Pfizer, Moderna or AstraZeneca as a second dose of COVID-19 vaccine.<sup>5</sup>
    - If you experienced symptoms of VITT after a first dose AstraZeneca vaccine, you are recommended to take a second dose mRNA vaccine.
  - The recommendations on vaccine use are updated based on the latest data; please refer to the Public Health Agency of Canada website for current recommendations: <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html#b2>.
  - For the province of Ontario, please check the latest provincial vaccination plan and updates here: <https://covid-19.ontario.ca/ontarios-covid-19-vaccination-plan>.
  - Please consult with your provincial ministry of health websites for province-specific guidelines.

# References

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3. Miller K, Grindrod K, Ivers N, Jeimy S, Kiran T. "I got AstraZeneca for my first dose. Which vaccine should I get for my second?"- A guide to help you make an informed decision about your second COVID-19 vaccination. [Unpublished internal document].
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5. Public Health Agency of Canada. Recommendations on the use of COVID-19 vaccines. aem. Published July 22, 2020. Accessed August 9, 2021. <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html#b2>
6. Pai M, Grill A, Ivers N, et al. Vaccine-Induced Immune Thrombotic Thrombocytopenia (VITT) Following Adenovirus Vector COVID-19 Vaccination: Interim Guidance for Healthcare Professionals in the Outpatient Setting. Published online May 10, 2021. doi:10.47326/ocsat.2021.02.20.2.0
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