

Second Dose for Pfizer and Moderna (mRNA) COVID-19 Vaccine Recipients

Information

Both mRNA vaccines (Pfizer and Moderna) lower the risk of getting sick from COVID-19 infection, especially the risk of needing hospital care or dying. These vaccines have been important, life-saving parts of Alberta's COVID-19 Immunization Program. In Alberta, as of June 15, over 650,000 doses of Moderna have been given to adults 18 years of age and older and over 2.5 million doses of Pfizer have been administered to those 12 years of age and older.

Two doses of mRNA vaccine are needed to be fully immunized. Generally, the same vaccine will be used for both doses in a vaccine series. However, given what we know about the basic principles of vaccinology, people who have had one dose of one mRNA vaccine can safely complete the series with the other mRNA vaccine recommended for use

in that age group should the initial vaccine product not be readily available at the preferred immunization site or time. Individuals can:

1. Complete the series with the same mRNA vaccine (i.e., Pfizer-Pfizer or Moderna-Moderna), or
2. Complete the series with the other mRNA vaccine (i.e., Pfizer-Moderna or Moderna-Pfizer).

Note: One exception relates to individuals who are 12 to 17 years of age. These individuals must receive the Pfizer vaccine as their second dose, given that the Moderna vaccine is not yet licensed for those under the age of 18 (although those turning 18 this year may be offered Moderna).

Important points to consider

Effectiveness and Safety

- The same vaccine is generally used for all doses in a vaccine series because that is how the vaccine is studied by the vaccine manufacturers.
- No data currently exist on the mixing of mRNA vaccines. However, there are no reasons to believe that mRNA vaccine mixing will result in any additional safety issues or reduction in protection. Research is currently underway in the UK and Canada to study the effectiveness and safety of mixing mRNA vaccine products.
- Pfizer and Moderna COVID-19 vaccine are made using the same technology and have similar efficacy in clinical trials and similar effectiveness in the real world.
 - Pfizer vaccine effectiveness after two doses in Alberta is estimated to be 90%, while Moderna vaccine effectiveness after two doses in Alberta is estimated to be 93%.
- Based on what we know about vaccine science, it is expected that combining different COVID-19 vaccines that induce an immune response against the same COVID-19 protein will lead to a robust immune response.
- There have been no confirmed safety signals with either mRNA vaccine.

Side Effects

- Adverse events after both mRNA vaccines are also similar, most of which are mild or moderate and resolve within a few days. These include pain at the injection site, fatigue, headache, muscle pain, chills, joint pain, and fever.
 - Some adverse events, including fever, are more frequent after the second dose.

Complete Series

- Both options are valid, and having two doses of mRNA vaccines will count as a complete immunization series in Canada.
- There is still some uncertainty if receiving two different mRNA vaccines will be considered a complete immunization series by all international jurisdictions.

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Second dose timing

Wait at least 28 days between receiving your first and second dose of mRNA vaccine.

How to book your second dose of mRNA vaccine

- A. Book with Alberta Health Services (AHS) online or by calling 811.
- When booking your second dose appointment online with AHS, the system will ask which vaccine you were given for your first dose and will direct you to sites offering that vaccine.
 - If there are no appointments available for that same vaccine in your geographic area or within the timeframe you prefer, you can choose to:
 - Book a second dose appointment online with AHS to receive the same mRNA vaccine at a later date, or
 - Book a second dose appointment online with AHS to receive the other mRNA vaccine sooner, or
 - Book a second dose appointment with a [participating pharmacy](#) that carries the same vaccine that you received for your first dose.
- B. Book with any [participating pharmacy](#).

Safety data on the COVID-19 vaccines in use in Canada

- Health Canada publishes information about each authorized vaccine, posted on the Health Canada website at <https://covid-vaccine.canada.ca/>.
- Health Canada also publishes information and case counts of all Adverse Events Following Immunizations (AEFI) at <https://health-infobase.canada.ca/covid-19/vaccine-safety/>.