

Second dose for AstraZeneca/COVISHIELD recipients

Information

The AstraZeneca vaccine lowers the risk of getting sick from COVID-19 infection, especially the risk of needing hospital care or dying. This vaccine has been an important and life-saving part of Alberta's COVID-19 vaccine roll-out. Over 258,000 doses have been given to adults 18 years of age and older in Alberta.

Two doses of AstraZeneca vaccine are needed to be fully immunized. Usually, the same vaccine is used for all doses in a vaccine series. However, given the rare risk of blood clots following vaccination with the AstraZeneca vaccine found

during the vaccine roll-out, the current large and steady supply of mRNA vaccines in Alberta, and emerging evidence on mixed vaccine schedules, people who have had one dose of the AstraZeneca COVID-19 vaccine now have two choices to complete their vaccine series. These are:

1. Complete the series with AstraZeneca vaccine.
2. Complete the series with an mRNA vaccine (Pfizer/Moderna).

There are some important things to think about before you make a choice.

Completing the series with AstraZeneca vaccine

Effectiveness | The same vaccine is generally used for all doses in a vaccine series because that is usually how the vaccine is studied by the vaccine companies. In clinical trials, the AstraZeneca COVID-19 vaccine prevented 60% to 80% of sickness from COVID-19 starting two weeks after the second dose. There was an even greater protection against hospitalization and death from COVID-19. Similar protection has been seen in real-world use too.

Side Effects | Most local and whole-body reactions like headache and tiredness after getting AstraZeneca vaccine are mild or moderate and short-lived. These side effects are rarer and even milder after the second dose of the vaccine.

Safety | A very rare but serious condition of blood clots combined with low levels of blood platelets (Vaccine-Induced Immune Thrombotic Thrombocytopenia, or VITT) has been reported following immunization with AstraZeneca or COVISHIELD vaccines in Europe, the United Kingdom, and Canada. These rare cases of VITT mostly happen between 4 and 28 days after the AstraZeneca vaccine. People who get an AstraZeneca vaccine should watch themselves for symptoms like severe and constant headache, belly pain, and difficulty breathing from 4 days to 42 days after the vaccine. In Canada, after the first dose, there has been one case of VITT reported for every 55,000 doses of vaccine given. In Alberta, there have been 5 cases of VITT with one death. The rate of VITT after a second dose is not clear yet, but after giving about 9 million second doses of AstraZeneca vaccine, the United Kingdom has reported 15 VITT cases. This is 1 case per 600,000 doses, which is much rarer than after first doses, however it is possible this could change over time.

Completing the series with an mRNA vaccine

Effectiveness | Most studies looking at giving an mRNA vaccine after a first dose of AstraZeneca are not finished yet, but one small study from Spain showed that immune response was greatly improved, compared with no second dose, when Pfizer vaccine was given 8 or more weeks after a dose of AstraZeneca vaccine. It is possible that using different vaccines might stimulate the immune system in different ways and provide a stronger immune response, but we don't yet have studies that clearly prove this. Results from a study in the UK on this question should be ready in late June.

Side Effects | A trial from the UK showed that people who got the Pfizer vaccine 4 weeks after a dose of AstraZeneca vaccine had more general reactions like fever and aches than those who received the same vaccine for their second dose. Most symptoms happened in the 2 days after immunization and went away on their own. In the study from Spain with AstraZeneca and then Pfizer after 8 weeks, side effects were mild and went away on their own.

Safety | There have been no cases of VITT reported after getting an mRNA vaccine. There are no safety signals from either the UK trial or the one in Spain that gave people an mRNA vaccine after an AstraZeneca vaccine, however these trials were very small and there is less data on mixed vaccine series than on vaccine series with the same vaccine.

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Alberta is in the very fortunate situation where mRNA and AstraZeneca vaccine are both available and there will not be a delay in receiving either vaccine whatever option you choose. Both options are valid, and both will count as a completed series. If you choose an mRNA vaccine for your second dose, you do not need to restart a series.

All Canadian provinces and territories will recognize a first dose of AstraZeneca and a second dose of either an mRNA vaccine or AstraZeneca as a complete series. (International jurisdictions may or may not have the same criteria.) If you feel you need help with understanding the information above, please consider talking to a healthcare professional.

Second dose timing

Studies that look at how well AstraZeneca vaccine works after giving the second dose at different times show that waiting longer than 8 weeks is better than getting a second dose before then. No matter when you are eligible to book your second dose, we recommend you wait for at least 8 weeks after your first dose to get the best level of protection.

How to book your second dose

Albertans who received a first dose of AstraZeneca will have a choice:

- Book a second appointment for AstraZeneca by going to alberta.ca/vaccine and click on AHS's online booking site or calling 811, or go to a pharmacy listed on the Alberta Blue Cross website that is offering AstraZeneca, or
- Book a second appointment for an mRNA vaccine through any participating pharmacies or AHS.

More about VITT

What are the symptoms of VITT to watch for?

If you experience any of these symptoms from 4 to 42 days after the vaccination, please seek medical attention as soon as possible:

- severe headache that does not go away
- seizure
- difficulty moving part(s) of the body
- new blurry vision that does not go away
- difficulty speaking
- shortness of breath
- chest pain
- severe abdominal pain
- new severe swelling, pain, or colour change of an arm or a leg

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 counts of all Adverse Events Following Immunizations (AEFI) at <https://health-infobase.canada.ca/covid-19/vaccine-safety/>.