

## AstraZeneca COVID-19 Vaccine Facts

**Getting a vaccine is a personal choice.** Below are facts about the AstraZeneca COVID-19 vaccine to help you make a choice about getting vaccinated.

### How does the AstraZeneca COVID-19 vaccine work?

- AstraZeneca is a **viral vector vaccine**. Viral vector vaccines work in following way:
  - 1) Scientists use a safe virus as a 'carrier' to deliver the spike protein gene from the COVID-19 virus through a vaccine.
  - 2) The vaccine enters the cells and the spike protein gene tells the cells to make spike proteins just like those on the virus.
  - 3) The body's immune system reacts, produces antibodies and activates T-cells to destroy cells with the spike protein.
  - 4) If the person later comes into contact with COVID-19, the antibodies and T-cells remember how to attack the spike protein and can fight the coronavirus.
- The vaccine **cannot** damage or change our DNA.
- The vaccine does not contain the live virus and **cannot** give us COVID-19.

### Is the AstraZeneca vaccine safe? Does it work?

- Health Canada carried out careful reviews of the vaccine and approved it as safe and effective for adults aged 18 and older.
- The AstraZeneca vaccine is associated with extremely rare cases of blood clots. These cases represent a very small percent of the tens of millions of doses that have been given. While the cases are concerning enough to need investigation, it's important to remember that the risk is very small, especially compared to the proven high risk of blood clots associated with COVID-19 infection.
- The vaccines were developed and tested faster than in the past because of:
  - improved science and technology,
  - increased funding, and
  - scientists working together.
- Clinical trials showed 100% effectiveness against severe COVID-19 illness.
- 62% effectiveness in preventing mild to moderate COVID-19 infection in initial clinical trials and 76% effective in the recently-completed US/South American clinical trial when variants were also present.
- The most common side effects are pain in the arm where you got the shot, feeling tired, headache, body aches, chills, and fever. These side effects **are normal** and **expected**. Serious side effects and allergic reactions are uncommon.

Contact your health care provider if you have any questions about the COVID-19 vaccines.

Visit: <https://www.hamilton.ca/coronavirus/covid-19-vaccine-frequently-asked-questions> for vaccine questions and answers.

## What else do I need to know?

- COVID-19 infections can spread easily in crowded spaces where masking and physical distancing are difficult or impossible to practice.
- The COVID-19 vaccines **are free**.
- Vaccination against COVID-19 is not mandatory.
- The more people in the community who are vaccinated, the harder it is for COVID-19 to spread.
- If you have a health condition, talk to your health care provider about getting the COVID-19 vaccine. They know your health conditions and can give you the best information to help you make your decision.
- For the currently approved COVID-19 vaccines **two doses** of the vaccine are required for better protection.
- 23,848 people participated in the clinical trials for AstraZeneca. Approximately 10% of participants in the clinical trials for AstraZeneca identified as Black.

## What is still to be learned about the COVID-19 vaccines?

- How long vaccination protects you against COVID. We also don't know how long immunity after COVID infection lasts.
- If there are long term side effects. This may take several years to study. It is more common for vaccines to have side effects that happen right away rather than many months or years later.
- How well the vaccine will work in pregnant women, children and young teens, because they were not included in the vaccine trials.
- How well the vaccine will work to protect a person from new variants of COVID-19 though early data for AstraZeneca shows that it protects well against the U.K. variant (B.1.1.7).
- If the vaccine reduces the chances of you transmitting the infection to others. For this reason, it will be important after vaccination to follow public health measures such as masking and physical distancing in the coming months.

**All of these will be better understood with time and with more people being vaccinated.**

## More Information

### Hamilton Public Health Services

[www.hamilton.ca/coronavirus](http://www.hamilton.ca/coronavirus)

[www.hamilton.ca/COVIDvaccines](http://www.hamilton.ca/COVIDvaccines)

### If you have general questions about the COVID-19 vaccine:

- Call the COVID-19 Hotline at (905) 974-9848, option 7
- Email [phscovidvaccine@hamilton.ca](mailto:phscovidvaccine@hamilton.ca)