

COVID-19 mRNA Vaccine Facts

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

How do the COVID-19 mRNA vaccines work?

- Messenger RNA (mRNA) is a genetic blueprint that tells your body how to make a protein found on the surface of the COVID-19 virus, called the spike protein.
- Once vaccinated, your body's immune system makes fighter cells and antibodies against the COVID-19 spike protein. If you come in contact with the COVID-19 virus in the future, your immune system will attack the virus and protect you from getting sick with COVID-19.
- mRNA vaccines **cannot** damage or change our DNA.
- The COVID-19 mRNA vaccines do not contain the live virus and **cannot** give us COVID-19.
- The COVID-19 vaccines are the first time that mRNA knowledge will be used widely in vaccines. mRNA has been studied by researchers for many years.

Are the COVID-19 vaccines safe? Do they work?

- Health Canada carried out careful reviews of the Pfizer BioNTech and Moderna vaccines and approved them as safe and effective.
- The clinical trials included over 70,000 volunteers from across the world. Several hundred people in the trials self-identified as American Indians or Alaska Natives. This number was too small to tell us if there were any differences in how the vaccine works in Indigenous people. Race shouldn't affect the protection offered by the vaccine.
- Between 35-40% of the participants were Black or African American, Latinx and Hispanic in both vaccine clinical trials (Pfizer BioNtech and Moderna).
- The vaccines were developed and tested faster than in the past because of:
 - improved science and technology,
 - increased funding, and
 - scientists working together.
- The Pfizer vaccine is 95% effective and Moderna is 94% effective in preventing COVID-19 infections and severe illness from COVID-19.
- 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.

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.
- 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
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
- **Government of Ontario**
www.ontario.ca/coronavirus
www.ontario.ca/covidvaccines