



**COVID-19 Vaccines Myths & Facts**  
**January 5, 2021**

As the COVID-19 vaccines have been approved and have become available in Canada and around the world, a lot of information is circulating, particularly via social media. Having access to a trusted source of information is key. To help you navigate and make an informed choice to be vaccinated, we're debunking some of the top myths circulating about the COVID-19 vaccine.

**Myth:** *The COVID-19 vaccines aren't safe because they were rapidly developed and haven't been properly tested.*

**Fact:** All vaccines must go through a rigorous and extensive evaluation process that includes stringent safety protocols to earn approval – and the COVID-19 vaccines are no exception. Canada's independent drug approval process is recognized around the world for its high standards as well as thorough and rigorous review.

The approval of the Pfizer-BioNTech and Moderna vaccines are supported by high-quality scientific evidence that they are safe and effective at preventing COVID-19.

Additionally, there are two reasons that the COVID-19 vaccines were able to be developed and approved quickly in Canada and around the world:

- Vaccine manufacturers and the scientific community quickly recognized the significant impact of the COVID-19 pandemic and focused their attention on vaccine development. While the effort warranted an urgent response, companies were still required to follow all safety protocols, testing and regulatory approvals for vaccines.

Large scale, high-quality international studies were undertaken to ensure the vaccines were safe and effective. The Pfizer-BioNTech vaccine for COVID-19 has been studied in a rigorous randomized double-blind placebo controlled clinical trial of more than 44,000 people that compared the vaccine to a placebo for both safety and prevention of COVID-19 infection. Similarly, the Moderna vaccine has been studied in a high-quality randomized controlled trial of more than 30,000 people.

- When the pandemic began, the worldwide scientific community had experience developing similar vaccines (called mRNA vaccines) and built on this expertise to develop new vaccines targeting COVID-19.

**Myth:** *The COVID-19 vaccines will change my DNA.*

**Fact: COVID-19 vaccines will not alter your DNA.** The Pfizer-BioNTech and Moderna vaccines are messenger RNA (mRNA) vaccines. mRNA vaccines teach cells in the body how to make a protein that triggers an immune response that helps you develop antibodies to destroy the coronavirus. If you are then exposed to the COVID-19 virus, your immune system remembers how to attack and eliminate it. These proteins made by your body do not reproduce and do not become viruses.

Injecting mRNA into your body will not interact or do anything to your DNA.

**Myth:** *You can get COVID-19 from the vaccine because you are injecting the virus into your body.*

**Fact: There is nothing in the vaccine that could cause COVID-19.** The vaccine does not contain a live or inactivated virus and cannot cause COVID-19. It teaches your body to fight the virus so your immune response will protect you.

**Myth:** *I already had COVID-19 so I don't need to get the vaccine.*

**Fact:** We do not have enough information at this time to say how long “natural immunity” to COVID-19 (immunity acquired from prior infection with the virus) lasts once someone has been infected. More studies are needed to determine the duration of this type of immunity.

In the meantime, Health Canada and Trillium Health Partners recommends getting the COVID-19 vaccine even if you've already had COVID-19. If you've had recent or active COVID-19, it is recommended that the vaccination should be delayed. Please speak with your doctor to discuss your vaccination options.

**Myth:** *The COVID-19 vaccines can cause severe side effects.*

**Fact:** The Pfizer-BioNTech and Moderna vaccine studies show that they are safe and as more people are vaccinated across the globe, very few adverse events have been reported.

Of the tens of thousands of people who have already been vaccinated, some have reported short-term symptoms like fever, headache, or body aches, and a few have reported allergic reactions. COVID-19 vaccine side effects are similar to many short-term mild or moderate vaccine effects that resolve without complication or injury.

To be clear, these side effects are a sign of an immune system kicking into gear and are expected in vaccines against any virus. They do not signal that the vaccine is unsafe, but rather that your immune system is responding. To date, there are no known serious, long-term side effects associated with these vaccines, which will be closely monitored as their use expands.

**Myth:** *More people will die as a result of a negative side effect to the COVID-19 vaccines than would actually die from the virus.*

**Fact:** There are claims circulating on social media that COVID-19's mortality rate is 1%-2% and that people should not be vaccinated against a virus with such a high survival rate. However, a 1% mortality rate is 10 times more lethal than the seasonal flu. Mortality rates also vary widely and are influenced by age, sex and underlying health conditions.

While some people that receive the vaccine may develop side effects as their immune system responds, this is a common reaction and is not considered serious or life-threatening.

**Myth:** *The COVID-19 vaccine was developed as a way to control the general population through microchip tracking in our brains.*

**Fact:** There is no vaccine "microchip" and the vaccine will not track people or gather personal information into a database.

This myth began following comments made by Bill Gates, from the Bill & Melinda Gates Foundation, about digital certificates of vaccine records. The technology he was referencing is not a microchip, has not been implemented in any manner, and is not tied to the development, testing or distribution of the COVID-19 vaccine.

**Myth:** *The COVID-19 vaccines were developed using fetal tissue.*

**Fact:** Current COVID-19 vaccines were not created with fetal tissue and these tissues are not used in the vaccine production process.

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