14 common myths about COVID-19 vaccines, busted

Many myths about COVID-19 vaccines that arose from the pandemic still persist today. These myths can be concerning and worrying to hear or read – but they are misinformation and therefore false. This factsheet debunks some of the most common COVID-19 vaccine myths to help you be more informed and feel more confident when it comes to getting vaccinated.

Misinformation vs. disinformation: What is the difference?

**Misinformation** is information that is inaccurate/false but is spread innocently and without the intention to cause harm. For example, people may read of or talk about a vaccine myth, not knowing that the information is incorrect. This would be considered misinformation. **Disinformation**, on the other hand, is information fabricated by a person or group to deliberately confuse, manipulate or cause harm to others.

**Myth:** Influenza (flu) vaccines also protect against COVID-19.

**Fact:** False. Influenza vaccines (flu shots) protect only against influenza. COVID-19 vaccines protect only against COVID-19. If you want to get a vaccine that protects against COVID-19, you would need to receive a COVID-19 vaccine.
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**Myth:** It is better to catch COVID-19 than to get the COVID-19 vaccine.

**Fact:** False. COVID-19 can be **very serious** and can lead to pneumonia, organ failure, blood clots, and hospitalization, among other potential outcomes. In fact, as of November 11, 2023, **55,275 people** in Canada have died due to COVID-19. Some people who catch COVID-19 will have symptoms that last for weeks to years. **Getting immunized against COVID-19 is the best way to protect against it.**

**Myth:** The COVID-19 vaccine can cause fertility problems and will affect my ability to have a baby.

**Fact:** There is **no evidence** that the COVID-19 vaccine affects fertility in anyone who receives it. The COVID-19 vaccine is **safe** to receive if you are planning a pregnancy, trying to become pregnant, pregnant, or breastfeeding.

**Myth:** COVID-19 vaccines can change your DNA.

**Fact:** False. There is **no evidence** that COVID-19 vaccines can change your DNA. The mRNA (messenger RNA) vaccines introduce COVID-19 mRNA (genetic material) into the cells of your body to help teach your immune system how to recognize COVID-19 and protect you against it. But this mRNA **never interacts with or changes your DNA**, as it **never enters the nucleus of the cell** – the place where your DNA is located. Also, the COVID-19 mRNA vaccines only instruct your cells on how to recognize a small piece of the COVID-19 virus. The vaccines **do not use the whole virus**. This means that the COVID-19 vaccines **cannot cause you to become sick with COVID-19**. The mRNA is also broken down quickly in your cells, so it is not in your body for long.

**Myth:** There is a 2-in-1 vaccine that protects against both influenza (flu) and COVID-19.

**Fact:** False. There is **no vaccine** that protects against both influenza and COVID-19. However, you can receive your COVID-19 vaccine and your influenza vaccine at the same visit, one in each arm.
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Myth: The COVID-19 vaccines can cause cancer.

Fact: False. There is no evidence that COVID-19 vaccines can cause cancer. In fact, there is no evidence that vaccines can cause cancer in general. However, there are vaccines that can protect against certain types of cancer, such as the HPV (human papillomavirus) vaccine and the hepatitis B vaccine.

Myth: The COVID-19 vaccines were developed too quickly. They’re not safe.

Fact: Vaccines are some of the most rigorously tested and strictly regulated medical products in the world. In Canada and internationally, vaccines must prove that they meet strict standards of safety and effectiveness (how well they work) before they are approved for use, and the COVID-19 vaccines have been no exception. Due to the pressing health threats the COVID-19 pandemic posed, scientists came together from all over the world and collaborated to create the COVID-19 vaccines. Because of this amazing show of collaboration, we were able to have COVID-19 vaccines developed and approved in record time, without sacrificing vaccine safety.
**Myth:** The COVID-19 vaccine doesn’t work; vaccinated people are still catching COVID-19.

**Fact:** It is important to remember that no vaccine is 100% effective. For this reason, it was expected that some people who were vaccinated against COVID-19 would catch it (these are called breakthrough infections). But catching COVID-19 after getting vaccinated against it doesn’t meant the vaccines don’t work. In fact, they are very effective at protecting you against hospitalization and severe disease caused by COVID-19. They also make it less likely that you will experience long-term COVID-19 symptoms. As the COVID-19 virus continues to mutate and as new variants pop up, staying up to date with your COVID-19 vaccines gives you the best protection possible against the disease and its symptoms.

**Myth:** The mRNA technology used to make some of the COVID-19 vaccines is too new. It’s not safe.

**Fact:** mRNA (messenger RNA) technology is not as new as you might think! Scientists have known about and have studied mRNA since the 1960s, and research into mRNA vaccine technology actually began in the 1990s. So, the COVID-19 mRNA vaccines may be the first approved mRNA vaccines in the world, but the technology is not new. We owe the creation and success of these vaccines to decades of research.

**Myth:** COVID-19 vaccines can connect you to the Internet/5G networks.

**Fact:** False. There is no evidence that COVID-19 vaccines can connect you to the Internet or 5G networks. Neither the COVID-19 virus, nor viruses in general, nor the cells in our bodies have the ability to connect to the Internet or 5G networks. For more information on where this myth came from, please see this article in The Conversation by Dr. Archa Fox.
Myth: COVID-19 vaccines can make you magnetic.

Fact: False. There is no evidence that COVID-19 vaccines make you magnetic. They do not contain any materials that could cause you to become magnetic.

Myth: The COVID-19 vaccine can cause heart problems. It’s not safe.

Fact: While it is true that the COVID-19 vaccine can lead to myocarditis (inflammation of the heart muscle) and pericarditis (inflammation of the lining of the heart), these side effects are rare and typically clear up quickly. You are much more likely to experience heart problems if you catch COVID-19. In fact, COVID-19 can lead to myocarditis, pericarditis, blood clots, stroke, arrhythmias, and heart attacks – complications the COVID-19 vaccine protects you against if you catch COVID-19 from someone after being immunized.

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