

# Pfizer-BioNTech COVID-19 vaccine: What you should know

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## About the Pfizer-BioNTech COVID-19 vaccine

The Pfizer-BioNTech COVID-19 mRNA vaccine (Tozinameran or BNT162b2) is used to prevent COVID-19. This disease is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

The Pfizer-BioNTech COVID-19 vaccine is manufactured by Pfizer Canada ULC and BioNTech Manufacturing GmbH. Health Canada authorized this vaccine with conditions on December 9, 2020.

### Vaccine Age Eligibility

The vaccine is approved for people who are 16 years of age and older. Its safety and effectiveness in people younger than 16 years of age have not yet been established.

### How it works

mRNA vaccines teach our cells how to make a protein that will trigger an immune response without using the live virus that causes COVID-19. Once triggered, our body then makes antibodies. These antibodies help us fight the infection if the real virus does enter our body in the future.

'RNA' stands for ribonucleic acid, which is a molecule that provides cells with instructions for making proteins. [Messenger RNA \(mRNA\) vaccines](#) contain the genetic instructions for making the SARS-CoV-2 spike protein. This protein is found on the surface of the virus that causes COVID-19.

When a person is given the vaccine, their cells will read the genetic instructions like a recipe and produce the spike protein. After the protein piece is made, the cell breaks down the instructions and gets rid of them.

The cell then displays the protein piece on its surface. Our immune system recognizes that the protein doesn't belong there and begins building an immune response and making antibodies.

## How it's given

The vaccine is given by an injection (0.3 mL) into the muscle of the arm. For the vaccine to work best, **you need to get 2 doses**: a single dose and then **a second dose 21 days later**.

Based on studies in about 44,000 participants, the Pfizer-BioNTech COVID-19 vaccine was 95% effective in preventing COVID-19 beginning 1 week after the second dose. ***This means that people may not be fully protected against COVID-19 until at least 7 days after the second dose.***

## Possible side effects

In general, the side effects observed during the clinical trials are similar to what you might have with other vaccines.

The side effects that followed vaccine administration in clinical trials were mild or moderate. They included things like pain at the site of injection, body chills, feeling tired and feeling feverish.

These are common side effects of vaccines and do not pose a risk to health.

As with all vaccines, there's a chance that there will be a serious side effect, but these are rare. A serious side effect might be something like an allergic reaction. Speak with your health professional about any serious allergies or other health conditions you may have before you receive this vaccine.

Health Canada has conducted a rigorous scientific review of the available medical evidence to assess the safety of the Pfizer-BioNTech COVID-19 vaccine. No major safety concerns have been identified in the data that we reviewed.

## Ingredients

Medicinal ingredient	Non-medicinal ingredients cont...
<ul style="list-style-type: none"><li>mRNA</li></ul>	<ul style="list-style-type: none"><li>1,2-Distearoyl-sn-glycero-3-phosphocholine</li><li>cholesterol</li><li>dibasic sodium phosphate dihydrate</li><li>monobasic potassium phosphate</li><li>potassium chloride</li><li>sodium chloride</li><li>sucrose</li><li>water for injection</li></ul>
Non-medicinal ingredients	
<ul style="list-style-type: none"><li>ALC-0315 = ((4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl)bis(2-hexyldecanoate)</li><li>ALC-0159 = 2-[(polyethylene glycol)-2000]-N,N-ditetradecylacetamide</li></ul>	

[Recommendations for people with serious allergies \(right click to access hyperlink\)](#)

In Canada, all vaccines carry a warning about the risk of serious allergic reactions, including anaphylaxis, and immunization clinics are equipped to manage these rare events.

People with allergies to any of the ingredients of the vaccine are currently cautioned against receiving it.

Speak with your health professional about any serious allergies or other health conditions you may have before you receive this vaccine.