

Debunking Myths Surrounding COVID-19 and Vaccines



Myth



I don't need vaccines if I had COVID-19 in the past.

The safety of COVID-19 vaccines has not been adequately tested.

COVID-19 vaccines are dangerous.

COVID-19 vaccines using mRNA technology will change your DNA.

COVID-19 vaccines are not effective because you can still catch and spread the virus.

COVID-19 vaccines may lead to infertility in women.

COVID-19 is not dangerous. It is just like the seasonal flu (influenza).

Fact



Vaccines provide higher levels of immunity to the virus than having been previously infected.

Testing was conducted at a faster rate due to the pressure to curb the spread of the virus. No safety measures were skipped. In addition, mRNA technology has been in development for decades.

Common flu-like side effects of the vaccines are a good sign that your body is working hard to produce a natural immune response and build protection against the virus. The vaccine is also meant to trigger an inflammatory response in order to **increase immunity**, often causing soreness at the site of injection. Severe side effects are rare.

It is **impossible** for Messenger RNA to alter your DNA, as it does not enter the cell's nucleus where genetic material is located.

No vaccines exist that are 100% effective. While "breakthrough" infections may occur, **symptoms are far less severe**.

Tests show no adverse pregnancy outcomes or safety concerns. There are no risks of miscarriage or damage to the placenta. On the other hand, contracting COVID-19 can be dangerous to the mother and developing child.

Both infections may display similar symptoms. However, COVID-19 is more contagious. It may take longer to show symptoms, allowing people to spread the virus unknowingly. People also tend to remain contagious for longer. **It can generally result in more serious symptoms, causing sudden serious illness, even in young and previously healthy people. There is a higher rate of hospitalization and death.** In addition, there is the chance of developing "long COVID"—sustaining symptoms weeks or months after infection.

Background of vaccines available in Canada

The Pfizer-BioNTech and Moderna vaccines for COVID-19 **use a technology called messenger ribonucleic acid (mRNA)**. Synthetic mRNA is introduced into muscle cells (without impacting DNA in any way). mRNA is a safe, small amount of genetic code that teaches cells how to build proteins and immunity (see below).

The AstraZeneca and Janssen (Johnson & Johnson) vaccines for COVID-19 **use a technology called adenovirus vector vaccine**. These types of vaccines introduce a vector—a modified and harmless version of a virus (not the COVID-19 virus). These vectors also provide instructions for our cells to build proteins and immunity.

For both types of vaccines: These vaccines **do not** insert any live COVID-19 virus into your body in order to cause infection. Rather, once receiving a vaccine, your body is able to recognize and attack the real virus if you are exposed to COVID-19.

References:

- (2021, August) AstraZeneca vs. Pfizer Vaccine Healthline. <https://www.healthline.com/health/astrazeneca-vs-pfizer-vaccine>
- (October, 2021) Recommendations on the use of COVID-19 vaccine. Government of Canada. <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html>
- Blackadar, K. (2021, September) Busting myths about COVID-19 vaccines and fertility. UBC News. <https://news.ubc.ca/2021/09/23/busting-myths-about-covid-19-vaccines-and-fertility/>
- Chow, D. (2021, November) What is mRNA? How Pfizer and Moderna tapped new tech to make coronavirus vaccines. NBC News. <https://nbcnews.com/science/science-news/what-mrna-how-pfizer-moderna-tapped-new-tech-make-coronavirus-n1248054>
- Katella, K. (2021, November) Comparing the vaccines. How are they different? Yale Medicine. <https://www.yalemedicine.org/news/covid-19-vaccine-comparison>
- Kelen, D.H. & Maragakis, L. (2021, September) COVID-19 Vaccines: Myths Versus Fact. Johns Hopkins Medicine. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-19-vaccines-myth-versus-fact>
- Lee, B.Y. (2021, August) CDC: COVID-19 reinfections for unvaccinated over twice as likely compared to vaccinated. Forbes. <https://www.forbes.com/sites/brucelee/2021/08/08/cdc-covid-19-reinfections-for-unvaccinated-over-twice-as-likely-compared-to-vaccinated/?sh=301b8e214ee8>



Pagpapabulaan sa mga Mito Tungkol sa mga Bakuna Laban sa COVID-19



Mito



Hindi ko kailangan ng bakuna kung ako ay nagkaroon na ng COVID-19.

Ang kaligtasan ng mga bakuna laban sa COVID-19 ay hindi pa sapat na nasusubukan.

Mapanganib ang mga bakuna ng COVID-19.

Babaguhin ang inyong DNA ng mga bakuna laban sa COVID-19 na gumagamit ng teknolohiyang mRNA.

Ang mga bakuna laban sa COVID-19 ay hindi epektibo dahil makukuha mo pa rin at maikakalat ang mikrobyo.

Ang mga bakuna laban sa COVID-19 ay nagdudulot ng pagkabaog sa mga babae.

Ang COVID-19 ay hindi mapanganib. Katulad lamang ito ng trangkaso.

Katotohanan



Ang mga bakuna ay nagbibigay ng mas mataas na antas ng panlaban sa mikrobyo kumpara sa kung ang isang tao ay nagkaroon na ng sakit.

Pinabilis ang pagsubok sa mga bakuna dahil kailangang mapigilan ang pagkalat ng mikrobyo. Walang iwinaksing mga hakbang para sa kaligtasan. Idagdag pa na ang teknolohiyang mRNA ay ilang dekada nang binubuo.

Ang mga mala-trangkasong side effect ng mga bakuna ay senyales na ang katawan ay gumagawa ng natural immune response at panlaban sa mikrobyo. Layon din ng bakuna ang mag-udyok ng inflammatory response para **magkaroon ng mas malakas na panlaban sa sakit**, na karaniwang nagpapasakit sa pinagturukan ng bakuna. Bihira ang mga malalang side effect.

Imposibleng baguhin ng Messenger RNA ang inyong DNA dahil hindi naman ito pumapasok sa nucleus ng selula na nagtaglay ng genetic material.

Walang bakunang siyento porsiyento ang bisa. Bagama't maaari pa ring mahawaan kahit na nabakunahan na, **ang mga sintomas ay kadalasan hindi kalubhaan**.

Nakita sa mga pagsubok na walang masamang epekto sa pagbubuntis ang mga bakuna. Walang panganib ng pagkakalaglag ng sanggol o pinsala sa inunang. Sa kabilang banda, ang pagkakaroon ng COVID-19 ay mapanganib sa ina at sa nabubuong bata.

Maaaring ang dalawa ay mayroong magkatulad na sintomas, subalit ang COVID-19 ay mas nakahahawa. Mas matagal din bago magpakita ang mga sintomas kung kaya't hindi alam ng mga taong mayroon na nito na sila ay nanghahawa. Ang mga tao ay may posibilidad na manatiling nakahahawa nang mas matagal. **Karaniwan itong nagreresulta sa mas malalang sintomas na nagdudulot ng mas malalang pagkakasakit, kahit na sa mga bata at malulusog na tao. Mas mataas din ang tsansang maospital at mamatay.** Idagdag pa ang tsansang magkaroon ng "long COVID" – at patuloy na magkaroon ng mga sintomas ilang linggo o buwan pagkatapos magkaroon ng COVID-19.

Background ng mga bakunang nasa Canada

Ang mga bakunang Pfizer-BioNTech at Moderna para sa COVID-19 ay **gumagamit ng teknolohiyang tinatawag na messenger ribonucleic acid (mRNA)**. Ipinapasok ang sintetikong mRNA sa kalamnan (na hindi naaapektuhan ang DNA ng tao sa anumang paraan). Ang mRNA ay isang ligtas na maliit na genetic code na nagtuturo sa mga selula kung paano gumawa ng mga protina at panangga sa sakit.

Ang mga bakunang AstraZeneca at Janssen (Johnson & Johnson) para sa COVID-19 ay **gumagamit ng teknolohiyang tinatawag na adenovirus vector vaccine**. Ang ganitong klase ng bakuna ay nagpapasok ng isang vector – isang hindi nakapipinsalang bersyon ng isang mikrobyo (hindi ang mikrobyong COVID-19). Ang mga vector na ito ay nagbibigay ng instruksyon sa mga selula na gumawa ng mga protina at panangga sa sakit.

Para sa dalawang naturang klase ng bakuna: Ang mga bakunang ito ay **hindi** nagpapasok ng buhay na mikrobyong COVID-19 sa inyong katawan para magkaroon ng impeksyon. Kung natanggap na ang bakuna, makikilala ng inyong katawan ang tunay na mikrobyo kapag kayo ay na-expose sa COVID-19.

Mga Sanggunian:

- (2021, August) AstraZeneca vs. Pfizer Vaccine Healthline. <https://www.healthline.com/health/astrazeneca-vs-pfizer-vaccine>
- (October, 2021) Recommendations on the use of COVID-19 vaccine. Government of Canada. <https://www.canada.ca/en/public-health/services/immunization/national-advisory-committee-on-immunization-naci/recommendations-use-covid-19-vaccines.html>
- Blackadar, K. (2021, September) Busting myths about COVID-19 vaccines and fertility. UBC News. <https://news.ubc.ca/2021/09/23/busting-myths-about-covid-19-vaccines-and-fertility/>
- Chow, D. (2021, November) What is mRNA? How Pfizer and Moderna tapped new tech to make coronavirus vaccines. NBC News. <https://nbcnews.com/science/science-news/what-mrna-how-pfizer-moderna-tapped-new-tech-make-coronavirus-n1248054>
- Katella, K. (2021, November) Comparing the vaccines. How are they different? Yale Medicine. <https://www.yalemedicine.org/news/covid-19-vaccine-comparison>
- Kelen, D.H. & Maragakis, L. (2021, September) COVID-19 Vaccines: Myths Versus Fact
- Johns Hopkins Medicine. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-19-vaccines-myth-versus-fact>
- Lee, B.Y. (2021, August) CDC: COVID-19 reinfections for unvaccinated over twice as likely compared to vaccinated. Forbes. <https://www.forbes.com/sites/brucelee/2021/08/08/cdc-covid-19-reinfections-for-unvaccinated-over-twice-as-likely-compared-to-vaccinated/?sh=301b8e214ee8>