Doctors Stand Up For Vaccination

Frequently Asked Questions
31 August 2021

What are the ingredients in the Pfizer vaccine?

The Pfizer vaccine contains:

- Messenger RNA that encodes for the spike protein which is on the outside of the virus that causes COVID-19
- Fats
- Salts
- Sugar

The vaccine does not contain DNA, fetal material, blood products or any products derived from animals or human cell lines.

A full list of ingredients is available at the following link:

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-how-vaccine-works?fbclid=IwAR1imycNMKa3PqwoX7nxTfyV4Jw7_ZWnI425GXmwK8fBmRoeaQbq6HXjv1E#protection

How does the vaccine work?

mRNA is the recipe that your body uses to instruct cells to make proteins. When the mRNA vaccine is injected into the arm, it tells the cells to make the “spike protein” which is a part of the outside of the virus that causes COVID-19. After this, the cells rapidly break down the mRNA.

The spike protein is broken down inside the cell into fragments. These fragments are displayed on the cell surface for recognition by the immune system. The cells are able to learn that the spike protein is foreign, form a memory of what the spike protein looks like, therefore if they see it again in the future the immune cells act quickly and destroy the virus.

The mRNA vaccine cannot enter the nucleus of your cell and it cannot alter your DNA. The amount of spike protein produced by vaccination is tiny compared with that produced when someone has a COVID-19 infection. **The vaccine cannot cause COVID-19 infection.**

Read more at the following links:

https://covid.immune.org.nz/covid-19-vaccines-nz/comirnaty-mrna-pfizerbiontech-vaccine/how-comirnaty-vaccine-works-and

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-how-vaccine-works#mrna

How effective is vaccination against COVID-19 for preventing severe illness?

Studies have shown that 2 doses of the Pfizer vaccine are approximately 90-97% effective at protecting against severe illness from COVID-19.

Figures from areas with good vaccine coverage show that **those who are fully vaccinated are largely protected from dying of or needing hospitalisation for COVID-19 illness,** whereas those who have not been vaccinated continue to have high death and hospitalisation rates.

Analysis indicates that the vaccination programme in the United Kingdom has directly prevented over 82,100 hospitalisations, approximately 23.96 million infections and 95,200 deaths.

For more information, read the following links:

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-vaccine-effectiveness-and-protection?fbclid=IwAR0ZJuS-JI2_5HsorzsU7ZvnrCksflsgKqncdNcdwYX5jz-LFnk7aCY6kBU#catching

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1012420/Vaccine_surveillance_report_-_week_33.pdf

Will the Pfizer vaccine stop me passing on COVID-19 to other people?

The most recent evidence shows that receiving 2 doses of the Pfizer vaccine reduces the chances of contracting and transmitting COVID-19.

Some cases of “breakthrough” COVID-19 can still occur following vaccination, but at a lower rate than in the unvaccinated. These cases are usually mild. Such “breakthrough” cases may pass COVID-19 on to someone else, but at a much lower rate than transmission from people who are not vaccinated.

Therefore, the current recommendation is that vaccinated people should continue to practice good public health measures such as physical distancing, washing hands and wearing masks.

Read more about this evidence at the following link:

https://www.health.govt.nz/system/files/documents/pages/science_updates_7_may_2021.pdf

What are the side effects of the vaccination?

The data shows that the benefits of vaccination with Pfizer vaccine outweigh the risk of experiencing a side effect. The majority of side effects are mild and short-lived. They include discomfort at the injection site, feeling tired, muscle aches, headache, joint pain and nausea. Some patients describe feeling generally unwell for a day or two. Brief swelling of the lymph nodes in the armpit may also occur.

Severe allergic reactions (anaphylaxis) are extremely rare but are closely monitored for and treated if they occur. All vaccination centres are equipped to deal with anaphylaxis if it occurs.

There have been rare reports of temporary inflammation of the heart wall (myocarditis). People who develop chest pain, shortness of breath or feeling of a racing or pounding heart in the days following the vaccine should seek medical attention for assessment. Fortunately, these cases are almost always mild and improve on their own. However careful assessment and monitoring is required as myocarditis can very uncommonly be serious.

Myocarditis is seen in people with COVID-19 infection, at a much higher rate than is seen with the vaccine.

Temporary one-sided facial weakness may also rarely occur following the vaccination although some studies indicate this is no higher than occurs in the population with no vaccination.

Read more about at the following links:

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-vaccine-side-effects-and-reactions?fbclid=IwAR0K8i2Kd_055EvzA95-sjY1LSgg3AdDLR7hQF9HCbE8s0zjmCHMsRPNvHI

https://www.medsafe.govt.nz/safety/Alerts/comirnaty-myocarditis-alert.htm

How were the vaccines developed so quickly?

The vaccine is an mRNA vaccine. mRNA was discovered in the 1960s and mRNA research has been underway for over two decades, including with the SARs and MERS pandemics in 2003 and 2012. When the pandemic occurred, due to global need for measures to combat the global spread of COVID-19, collaboration between scientists and governments allowed vaccine development and trials to be prioritised.

The vaccine still underwent the same trials you would expect with phase one, two and three trials performed. **No short cuts were taken.**

The speed of the trials was aided by the fact that recruiting volunteers for the vaccines was quicker than it often might be, due to the interest and need for a vaccine. The high incidence of COVID-19 in some countries also meant that it was possible to see the efficacy in vaccinated people quickly as exposure to COVID-19 in some of the trial countries was such a common occurrence. Due to the pressing need, manufacturing plants were built to produce the vaccine and reduce wait time. The result was a very efficient vaccine development that occurred at a time of global need.

Read more about this at the following links:

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-vaccine-clinical-trials-and-testing

https://covid.immune.org.nz/resources/video/how-mrna-vaccines-work-simply-explained

How is the safety of the COVID-19 vaccine being monitored?

The Pfizer vaccine has been used in hundreds of millions of people throughout the world with a large amount of data collected. Aotearoa New Zealand is leading a collaborative global initiative called the Global Vaccine Data Network, which collects data from over 17 countries to monitor vaccine safety. Such large numbers allow detection of even extremely rare side effects. In addition, Medsafe continues to closely monitor data about the safety of the Pfizer vaccine across the world, and produces reports weekly. In Aotearoa New Zealand, any adverse events occurring after immunisation are reported to the Centre for Adverse Reactions Monitoring (CARM). Reports can be submitted by a health professional or a member of the public and people are encouraged to do so.

Because a symptom or event in the weeks after a vaccine may have occurred despite the vaccine and may not be related to the vaccine, a team investigates these reports and looks at whether the rate of any events are higher than would be expected to happen normally. When something is happening at a higher rate than would be expected, this is called a 'safety signal' and this is then investigated more thoroughly.

Read more about the Global Vaccine Data Network at the link below:

https://www.globalvaccinedatanetwork.org/

If I have had COVID-19 infection should I still get the vaccine?

Yes. Getting vaccinated after already having COVID-19 infection further reduces the risk of being reinfected by COVID-19.

Read more at the following link:

https://www.healthline.com/health-news/people-whove-had-covid-19-should-still-get-vaccinated-heres-why?fbclid=IwAR2sHah8_-NSCuCKcAK5MXcS833neDEcAmUR14R3Y1rrx7iYBs-Lzv_CHp4

Can I have the vaccine if I am pregnant or trying to get pregnant?

Yes. We know that women who are pregnant are at an increased risk of complications from COVID-19 infection. Therefore, pregnant women are a priority group for COVID-19 vaccination and can receive it at any stage of pregnancy.

Women who are trying to become pregnant do not need to delay vaccination or avoid becoming pregnant after receiving the vaccination.

Vaccination in pregnancy can provide some protection to the unborn baby. A large number of pregnant women have received the vaccine and there have been no additional safety concerns. **There is no evidence of increased risk of miscarriage or birth defects with the COVID-19 vaccine.** Global evidence has shown that the Pfizer vaccine is safe for pregnant women. We suggest that women who are still concerned or who want to discuss timing of other vaccinations in pregnancy talk further with their health care professionals.

Read more at the following links:

https://covid.immune.org.nz/sites/default/files/2021-07/COVID-19%20vaccination%20pregnancy%20and%20lactation%20fact%20sheet.pdf

https://ranzcog.edu.au/statements-guidelines/covid-19-statement/covid-19-vaccination-information

Can I breastfeed after receiving the vaccine?

Yes. COVID-19 vaccination can provide protection against COVID-19 to babies by transferring antibodies through breastmilk. The mRNA in the vaccine is rapidly broken down in the body and does not appear in the breastmilk.

Read more at the following link:

https://ranzcog.edu.au/statements-guidelines/covid-19-statement/covid-19-vaccination-information

If I have cancer or my immune system is impaired can I have the vaccine?

Yes. Immunocompromised people, people with cancer and people with HIV can all receive the vaccine.

There has been a lot of work looking into the vaccine for patients with cancer or an impaired immune system. The vaccine remains safe for these patients. However, the response to the vaccine may not be as strong as for other people.

People with suppressed immune systems are at risk of more severe COVID-19 disease if they catch it. **For these reasons it is very important that people close to those with cancer or impaired immune systems are vaccinated, and that we have good community rates of vaccination.**

We suggest people on strong immunosuppressive treatment or treatment for cancer discuss the timing of the vaccine with their doctor. It may be possible to time the vaccination correctly with rounds of treatment to allow the best immune response to the vaccine.

Read more at the following link:

https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-getting-vaccine/covid-19-underlying-health-conditions-vaccine-advice#conditions

Who should not receive the COVID-19 vaccine?

The COVID-19 vaccine should not be given to anyone who has had anaphylaxis to a previous dose of the COVID-19 vaccine or to any of the ingredients in the vaccine.