

Common questions about Flu Vaccination...

Q. How long does it take for the flu vaccine to work in my body?

The flu vaccine takes up to 2 weeks to provide protection following vaccination. Some studies have observed protective levels of antibodies developing as early as 4 - 6 days following vaccination. It is recommended that the flu vaccine be given in April – June, before the flu transmission season begins and prior to peak influenza activity during the winter months. If you are exposed to a flu virus shortly before - or within - 2 weeks of being vaccinated, you may still catch the flu.

Q. Does flu vaccination work?

YES, the flu vaccine does work. Influenza vaccination reduces hospitalisation and deaths by 20% to 50%.

Q. What strains does the 2020 flu vaccine protect me from?

The antigen composition and strains for the approaching influenza season are determined by the World Health Organisation (WHO) and the Commission of the European Community. This year's flu vaccine contains the following strains:

- ~ an A/Brisbane/02/2018 (H1N1) - pdm09 - like virus (i.e. covering the pandemic (H1N1) 2009 "swine flu" virus);
- ~ an A/South Australia/34/2019 (H3N2) - like virus
- ~ a B/Washington/02/2019 - like virus (B/Victoria/2/87 lineage)
- ~ a B/Phuket/3073/2013 - like virus (B/Yamagata/16/88 lineage)

Q. Will having the seasonal flu vaccine protect me from getting "swine flu"?

YES, the 2020 vaccine contains an A/Brisbane/02/2018 (H1N1) - like virus strain that covers pandemic (H1N1) 2009 "swine flu".

Q. How long does flu protection last, and, why should I have a flu vaccination every year?

Immunity to the strains in a flu vaccine generally wanes within 6 to 12 months following vaccination, so it is important that annual flu vaccinations be administered. The changing nature of the influenza virus means that new flu strains are constantly appearing. Influenza viruses are capable of evading the body's immune system by undergoing continuous genetic variation and may change from flu season to flu season. In most years, a new flu vaccine is developed to provide protection against the predominant flu strains predicted by the World Health Organisation (WHO) to be circulating in that particular year.

Q. Can you get influenza ("the flu") from having the vaccine?

NO. Flu vaccines do not contain the whole virus - only the part of the virus that triggers your body to produce antibodies.

Q. Will receiving a flu vaccination protect me against the common cold?

NO. By vaccinating against the flu, you are providing protection against a serious viral illness - that is, influenza. A flu vaccination may provide some cross protection against an influenza virus not present in the flu vaccine. However, flu vaccination does not protect you against the common cold.

Q. Will an anti-viral prevent me developing influenza?

NO. Antivirals will only help relieve symptoms but not prevent infection from the influenza virus.

Q. Can anyone have a flu vaccination?

If you have a temperature before vaccination, or have had a previous reaction to any vaccination, please discuss this with the Nurse prior to receiving your vaccination. You will need to discuss influenza vaccination with your Specialist if you have in the past, or if you are currently receiving, any of the following four cancer treatments: 1) atezolizumab (TECENTRIQ®), 2) ipilimumab (YERVOY®), 3) pembrolizumab (KEYTRUDA®), 4) nivolumab (OPDIVO®).

Q. Are there any side effects?

Pain, swelling, redness, and/or, tenderness around the injection site are the most frequent side effects, but, in general are mild and of short duration. The majority of side effects disappear within 1 to 2 days.

Q. I am (or could be) pregnant. Can I have the flu vaccine?

YES. The seasonal flu vaccine is strongly recommended for women who will be pregnant during the flu season (refer to page 286 of the Immunisation Handbook 2017 entitled "Pregnant women and neonates"). Because there is no registered or effective vaccine for children aged under 6 months, vaccination during pregnancy is highly recommended to improve maternal foetal passive antibody transfer. Influenza vaccination of pregnant women has been shown to significantly decrease influenza in their newborn babies. Breastfeeding is also recommended, to deliver passive immunity to the infant. In a 2016 Australian study, influenza immunisation during pregnancy showed that stillbirth was 51% less likely among vaccinated mothers compared to unvaccinated mothers. There is no evidence that influenza vaccine prepared from inactivated virus causes damage to the foetus.

In Summary...

There are obvious advantages to influenza vaccination:

- ~ **less** time off work – less loss of income
- ~ **less** burden on your family, relatives and work colleagues
- ~ **less** strain on medical resources
- ~ **reduced** absenteeism at work
- ~ **YOU** don't feel miserable!

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Common questions about Flu Vaccination (cont)...

Q. I don't need a flu vaccination - I'm too healthy.

Being fit and healthy will not protect you from getting the flu. Healthy individuals are still at risk of influenza and may have flu symptoms for up to 10 days. On average, people with the flu will miss 3 to 5 work days.

Q. How effective is a flu vaccination against flu strains not included in the vaccine?

Effectiveness is reduced by the degree of difference between circulating virus strains and vaccine strains. There may be some cross protection against an influenza virus not in the vaccine. The influenza virus keeps changing and new vaccines are formulated for each Northern and Southern hemisphere flu season. WHO devotes significant resources to maintaining global surveillance on dominant flu strains each year in the Northern and Southern hemispheres.

Q. Who supplies the flu vaccine?

PHARMAC has the contract in New Zealand to source supply for "funded" flu vaccines from global flu vaccine manufacturers. AfluriaQuad® is the seasonal influenza vaccines that will be available in NZ for the 2020 season.

Afluria® Quad is produced by Seqirus (formerly bioCSL) who are the only vaccine manufacturers in the Southern Hemisphere. Seqirus is the second largest influenza vaccine company in the world.

Background about the quadrivalent flu vaccination...

Q. What is quadrivalent (4-strain) flu vaccination?

Quadrivalent (4-strain) flu vaccine is designed to protect against 4 (as opposed to 3 in the previously available trivalent (3-strain) flu vaccination) different flu viruses; two influenza A viruses and two influenza B viruses. Therefore, the difference between the previously available trivalent (3-strain) and the newer quadrivalent (4-strain) flu vaccine is the addition of another ('B' strain) vaccine virus in the quadrivalent (4-strain) flu vaccine.

Q. Why was the quadrivalent (4-strain) flu vaccine developed?

Before 1978, flu vaccines were designed to protect against only 2 different influenza viruses. From 1978 until recently, flu vaccines were designed to protect against 3 (i.e. trivalent) different flu viruses. Trivalent (3-strain) vaccines include an influenza A H1N1 virus, an influenza A H3N2 virus, and, one influenza B virus.

Since 2001, there have been two very different lineages of influenza B viruses that have co-circulated during most flu seasons. Experts had to choose annually only one influenza B virus to be included in the trivalent (3-strain) flu vaccine.

Adding another influenza B virus to the trivalent (3-strain) flu vaccine - that is, including both lineages of influenza B viruses to make the quadrivalent (4-strain) flu vaccine - aims to give broader protection against circulating flu viruses.

Experts expect that the addition of a second strain of influenza B virus - and creating the quadrivalent (4-strain) flu vaccine - will prevent the vast majority of type B influenza infection. Historically, B strains have caused epidemics every 2 to 4 years. On average, influenza associated hospitalisation and mortality rates are higher with type B than with type A (H1N1) influenza.

Q. Is the quadrivalent (4-strain) flu vaccine safe?

YES. Quadrivalent (4-strain) flu vaccines are made in the same way that trivalent (3-strain) flu vaccines were made for many years. Studies overseas have shown that quadrivalent (4-strain) flu vaccines have a safety profile similar to trivalent (3-strain) flu vaccines, with similar - mostly mild - side effects. Quadrivalent (4-strain) flu vaccines cannot cause influenza illness because the vaccine viruses used to make it are 'inactivated' (i.e. killed).

Q. Are quadrivalent (4-strain) flu vaccines successfully used overseas?

YES. The 2013 - 2014 season was the first season that quadrivalent (4-strain) flu vaccines were available in the United States. Of the 135 million flu vaccine doses distributed in the 2013 - 2014 United States season, 23% - that is, nearly a quarter of distributed flu vaccine doses - were quadrivalent (4-strain) flu vaccine.

In the 2019 - 2020 United States season, manufacturers estimate that 114 to 124 million doses (of the 162 to 169 million flu vaccine doses projected to be available) - that is, about 3/4's of available flu vaccine doses - will be quadrivalent (4-strain) flu vaccine.

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Common questions about novel coronavirus (COVID-19)

For the latest, and frequently updated, information about novel coronavirus (COVID-19), see The Ministry of Health's website:
<https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-covid-19>

For the most up to date answers to novel coronavirus (COVID-19) questions, see The Ministry of Health's website:
<https://www.health.govt.nz/our-work/diseases-and-conditions/novel-coronavirus-covid-19/novel-coronavirus-covid-19-questions-and-answers>

Q. What is novel coronavirus (COVID-19)?

Coronaviruses are a large and diverse family of viruses which include the common cold. The most recent diseases caused by coronaviruses include severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). In January 2020, officials identified a new coronavirus called SARS-CoV-2 (formerly known as 2019-nCoV). The disease caused by the new virus has been named COVID-19.

Q. What are the signs and symptoms of novel coronavirus (COVID-19)?

Symptoms of COVID-19 are similar to a range of other illnesses such as influenza and do not necessarily mean that someone has novel coronavirus (COVID-19). Symptoms of novel coronavirus (COVID-19) include:

- fever
- coughing
- difficulty breathing. Difficulty breathing is a sign of possible pneumonia and requires immediate medical attention.

If you have these symptoms and have recently been to mainland China or have been in close contact with someone confirmed with COVID-19, please contact Healthline (for free) on 0800 358 5453, or, your doctor immediately.

Q. How does novel coronavirus (COVID-19) spread between people?

As of 12th February 2020, the scientific evidence confirms that novel coronavirus (COVID-19) is spread by droplets. This means that when an infected person coughs, sneezes, or, talks, they may generate droplets containing the virus. The virus droplets are too large to stay in the air for long, so they quickly settle on surrounding surfaces. An individual who comes into contact with an object or surface with viral particles on the surface can then transfer the virus droplets to themselves - or others - by touching their mouth, nose, or, eyes.

Droplet-spread diseases can be spread by:

- coughing or sneezing
- close personal contact
- contact with an object or surface with viral particles on it and then touching your mouth, nose, or, eyes.

Q. How do I protect myself and others from novel coronavirus (COVID-19)?

You should always practice good hygiene by:

- covering coughs and sneezes with disposable tissues or clothing
- washing hands with water and soap for at least 20 seconds, and, then drying them thoroughly:
 - before eating or handling food
 - after using the toilet
 - after coughing, sneezing, blowing your nose or wiping children's noses
 - after caring for sick people.

People with symptoms of acute respiratory infection should practice good cough etiquette (i.e. maintain distance, cover coughs and sneezes with disposable tissues or clothing, and, washing hands).

Q. Is there a vaccine against novel coronavirus (COVID-19)?

There is currently no vaccine for novel coronavirus (COVID-19) as it is a new virus. Researchers are in the early stages of developing a vaccine. However, any vaccine that is developed has to be proven to not only be effective, but also to be safe in humans before it can be used. Therefore, even at its fastest possible pace this process will take months - if not years.

For more information on the process of making a vaccine, see the following link to Nanogirl Michelle Dickinson's brief article in The NZ Herald on 1st February 2020 titled 'Why does it take so long to make a vaccine'

https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12304642.

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