



## FAQ on COVID-19 Vaccination

### Section I: General Information on COVID-19 Vaccines

<b>Q1</b>	<b>How many types of Covid-19 vaccines are there?</b>
	<p>As of 2 December 2020, WHO lists 51 vaccine candidates in clinical trials, and 163 in pre-clinical studies. Vaccines in Phase 3 studies fall into 5 main categories:</p> <ul style="list-style-type: none"><li>a. mRNA vaccines: e.g. Pfizer-BioNTech, Moderna, Arcturus</li><li>b. virus vectored vaccines: e.g. Astra-Zeneca, Gamaleya, Can-Sino</li><li>c. inactivated virus vaccines: e.g. Sinovac, Bharat</li><li>d. protein subunit vaccines: e.g. Novavax, Sanofi-Pasteur</li><li>e. virus-like particle (VLP) vaccines: e.g. Medicago</li></ul>
<b>Q2</b>	<b>How do mRNA vaccines work?</b>
	<p>The COVID-19 mRNA vaccine consists of messenger ribonucleic acid (mRNA) that carry instructions to make the spike protein of the virus. The mRNA used in the vaccine is synthesised and not extracted from actual viruses. After being given by intramuscular injection, the vaccine mRNA is taken up by cells which then produce the spike protein. This stimulates the production of a good antibody and cellular immune response to the spike protein that protects the vaccinated person because the spike protein is an important part of the SARS CoV-2 virus. The spike proteins are however incapable of forming SARS CoV-2 viruses or causing COVID-19 infection. The vaccine mRNA only persists for two days before it is naturally broken down by the body. It does not enter the nucleus of cells and hence cannot interfere with the DNA of the vaccine recipient.</p>
<b>Q3</b>	<b>Are mRNA vaccines a form of genetic modification?</b>
	<p>No, they are not a form of genetic modification. The mRNA vaccine is in a form that is cannot be converted back to DNA. Since our human genome is made up of DNA, there is no possibility that the COVID-19 mRNA will interfere with or modify human DNA. The mRNA is completely degraded within 48 hours of introduction to the human body.</p> <p>The spike protein generated through the introduction of the COVID-19 mRNA is recognised by the body's immune system to develop an immune response (e.g. generation of antibodies), similar to what happens in a natural infection against COVID-19.</p>

<b>Q4</b>	<b>Are the COVID-19 vaccines halal?</b>
	The Islamic Religious Council of Singapore (MUIS)'s position is that COVID-19 vaccines are permissible for Muslim use. Please refer to MUIS' religious position on the COVID-19 vaccine here : <a href="https://www.muis.gov.sg/Media/Media-Releases/13-Dec-20-Religious-Position-on-COVID-19-Vaccine">https://www.muis.gov.sg/Media/Media-Releases/13-Dec-20-Religious-Position-on-COVID-19-Vaccine</a>
<b>Q5</b>	<b>I understand that there may be more than one strain of COVID-19. Will the vaccine cover us fully against all strains? What about the recent COVID-19 variants in UK, will the vaccines protect against such variants or future variants?</b>
	There is no evidence at this time suggesting that the Pfizer-BioNTech and Moderna's vaccines do not protect against specific COVID-19 strains, including the UK's reported variant. HSA and the EC19V are closely monitoring this issue.

## **Section II: Safety and Efficacy of the COVID-19 Vaccine**

<b>Q1</b>	<b>Which vaccine is approved for use in Singapore?</b>
	<p>The Health Sciences Authority (HSA) has assessed that the Pfizer COVID-19 vaccine meets safety and efficacy standards. HSA has authorised its use locally under the Pandemic Special Access Route (PSAR) which facilitates early access to vaccines and medicines during a pandemic, such as COVID-19.</p> <p>This is supported by the Expert Committee on COVID-19 Vaccination (EC19V) which has also reviewed the clinical data on the Pfizer COVID-19 Vaccine*. Only vaccines deemed suitable for use in target population subgroups, and where overall benefits outweigh the known risks, are recommended for use by the expert committee.</p> <p>To date, there has been no increase in the rates of major serious adverse effects attributable to the vaccine seen in the Phase 3 studies which have involved over 40,000 people. The Pfizer-COVID-19 Vaccine has been scrutinised and authorised by the US FDA and regulatory authorities in the UK and Canada. The vaccine manufacturers will continue to monitor safety and efficacy for 1-2 years.</p> <p><b>* Press Releases (27 Dec 2020)</b></p> <p><b>1. Expert Committee Submits Recommendations on Singapore's COVID-19 Strategy</b>  <a href="https://www.moh.gov.sg/news-highlights/details/expert-committee-submits-recommendations-on-singapore-s-covid-19-vaccination-strategy">https://www.moh.gov.sg/news-highlights/details/expert-committee-submits-recommendations-on-singapore-s-covid-19-vaccination-strategy</a></p> <p><b>2. Government Accepts Recommendations of Expert Committee on COVID-19 Vaccination</b>  <a href="https://www.moh.gov.sg/news-highlights/details/government-accepts-recommendations-of-expert-committee-on-covid-19-vaccination">https://www.moh.gov.sg/news-highlights/details/government-accepts-recommendations-of-expert-committee-on-covid-19-vaccination</a></p>

<b>Q2</b>	<b>Vaccines for COVID-19 have been approved for use in a shortened timeframe compared to other vaccines or drugs. How can we be sure that scientific rigour has not been compromised?</b>
	<p>An accelerated development timeline for vaccines against COVID-19 was possible given the following:</p> <ul style="list-style-type: none"> <li>a. Significant investment and dedication of resources from vaccine manufacturers to the ramping up of vaccine production; moreover, the mRNA technology platform had already been in development for many years prior to the COVID-19 pandemic.</li> <li>b. Strong global partnerships between many different partners including international organisations, governments, researchers and manufacturers;</li> <li>c. Given the pandemic situation, recruitment for and conduct of the randomised controlled trials to identify the differences in disease risk between those given vaccines and placebo, are able to be conducted more quickly than in the absence of a pandemic.</li> <li>d. Many trials have performed their trial phases concurrently, allowing for sufficient data to be produced in a shorter time.</li> </ul> <p>Safety, scientific or ethical integrity have not been compromised, and no short-cuts have been made, but the unique circumstances and factors described above have allowed accelerated development.</p>
<b>Q3</b>	<b>How effective is the vaccine? How long does the protection last?</b>
	<p>For the vaccines for which Phase 3 trial data is available (i.e. Pfizer-BioNTech and Moderna), analyses showed that efficacy in preventing symptomatic COVID-19 disease after completion of the vaccine regimen is about 95%. Studies are still ongoing on the extent and duration of immunity provided by the vaccines.</p> <p>In particular, at the point of submission with HSA for PSAR authorisation, with data from median follow-up of 2 months, the Pfizer-BioNTech COVID-19 Vaccine demonstrated a high vaccine efficacy of 95% in reducing symptomatic COVID-19 disease in vaccinated persons aged 16 years and older, with no signs of waning protection. We will continue to monitor and review further data on the duration of immunity.</p>
<b>Q4</b>	<b>If it is a single dose, what will the efficacy be?</b>
	<p>For the Pfizer-BioNTech COVID-19 Vaccine, protection for a single dose has not been formally studied by current trials. Based on inference from data from phase 3 trials, the efficacy is around 50% after one dose. Current trials will not be able to provide data for durability of the protection based on a single dose.</p>

	Based on vaccines for other diseases, completion of the recommended doses of the vaccine is required for long-term protection.
<b>Q5</b>	<b>Can vaccinated persons get infected with COVID-19? Are they less able to transmit the disease?</b>
	<p>Vaccination was shown to be around 95% effective in preventing symptomatic disease. That means that some vaccinated persons may still be vulnerable to infection.</p> <p>We are awaiting further data on whether vaccination will completely prevent onward transmission of infection. Based on experience with vaccination for other diseases, there is likely to be some increase in protection against onward transmission, even if it is not 100% protection. Most vaccines that protect from viral illnesses also prevent transmission of the virus by those that are vaccinated. We will be monitoring the Pfizer-BioNTech COVID-19 Vaccine data as it is rolled out both overseas and here.</p>
<b>Q6</b>	<b>[Added 30 Jan] Who should not get the COVID-19 vaccines?</b>
	<p>The COVID-19 vaccines are not recommended for pregnant women, severely immunocompromised persons, and children under the age of 16 years for now, until more efficacy and safety data become available for these subgroups.</p> <p>It is also not advisable for those with a history of anaphylaxis or severe allergic reactions to receive COVID-19 vaccine. Severe allergic reactions include eye, mouth, or facial swelling, difficulty in breathing and/or a fall in blood pressure. Anyone who develops anaphylaxis to the first dose of COVID-19 vaccine should not receive the second dose.</p> <p>For lactating women, EC19V's recommendation is that they can get vaccinated but are recommended to abstain from breastfeeding for 5 to 7 days post-vaccination.</p>
<b>Q7</b>	<b>[Added 30 Jan] Which groups are at risk for anaphylaxis and should not be vaccinated?</b>
	<p>Persons who had history of an allergic reaction to a previous dose of the Pfizer-BioNTech COVID-19 Vaccine or any of its components <b>SHOULD NOT</b> be vaccinated with this vaccine.</p> <p>Persons with a history of anaphylaxis which include severe angioedema, bronchospasm and/or hypotension, to other drugs, vaccines, food, insect stings, or unknown trigger (idiopathic) also <b>SHOULD NOT</b> receive this vaccine because of severe allergic reactions reported with this vaccine in other countries in individuals with a history of anaphylaxis or a severe allergic reaction.</p>

	<p>A history of having been prescribed an Epi-Pen suggests anaphylaxis risk and such persons <b>SHOULD NOT</b> receive the Pfizer-BioNTech COVID-19 Vaccine at this time</p> <p>Severe drug reactions which are not type 1 hypersensitivity reactions include:</p> <ul style="list-style-type: none"> <li>a) Stevens-Johnsons Syndrome (SJS)</li> <li>b) Toxic Epidermal Necrolysis (TEN)</li> <li>c) Drug Rash with Eosinophilia and Systemic Symptoms (DRESS)</li> <li>d) Drug-induced Hypersensitivity Syndrome (DiHS)</li> </ul> <p>Nevertheless, persons with any of the above severe drug reactions <b>SHOULD NOT</b> receive the Pfizer-BioNTech COVID-19 Vaccine at this time until more information is available over the next few months.</p> <p>Persons for whom the Pfizer-BioNTech COVID-19 Vaccine is contraindicated at this time may be able to get vaccinated later if data become available that it is safe to vaccinate them, or they may be able to get vaccinated with other COVID-19 vaccines.</p> <p>Persons with atopy (such as eczema, allergic rhinitis or well-controlled asthma) can be vaccinated. Although there may be some increased risk of hypersensitivity reactions to the Pfizer-BioNTech COVID-19 Vaccine, these conditions are common and there is not enough evidence to contraindicate the vaccine at this time.</p> <p>A person with a family history (but NOT a personal history) of anaphylaxis <b>CAN</b> be vaccinated.</p> <p>NSAID-induced angioedema is generally not considered an allergic (type 1 hypersensitivity) reaction. Nevertheless, persons with a history of NSAID-induced angioedema may be at some increased risk of anaphylaxis from the Pfizer-BioNTech COVID-19 Vaccine, and are advised to defer at this time. However, if the clinical risk/benefit strongly favours vaccination, then vaccination should be conducted in a healthcare facility with immediate access to anaphylaxis treatment.</p> <p>Similarly, persons with multiple allergies without anaphylaxis, who have never had severe angioedema, respiratory or circulatory involvement, may be at some increased risk of anaphylaxis, and are advised to defer receiving the Pfizer-BioNTech COVID-19 Vaccine at this time. However, if the clinical risk/benefit strongly favours vaccination, then vaccination should be conducted in a healthcare facility with immediate access to anaphylaxis treatment.</p>
<p><b>Q8</b></p>	<p><b>[Added 30 Jan] Can persons with prior COVID-19 infection be vaccinated?</b></p>

	<p>Currently available data do not indicate any safety concerns or risks of vaccination in those with prior COVID-19 infection. However, persons with prior COVID-19 infection are likely to be protected for at least the first 3 months after infection, and probably longer. Priority would therefore be given to vaccinate those with no COVID-19 immunity. Persons with prior COVID-19 infection can be vaccinated but are advised to postpone COVID-19 vaccination until after the COVID-19 naïve community have received their vaccinations.</p> <p>No routine testing by PCR or serology is required before getting COVID-19 vaccination to determine eligibility for vaccination.</p>
<b>Q9</b>	<b>[Added 30 Jan] Can a woman who is breastfeeding receive the Pfizer-BioNTech COVID-19 Vaccine?</b>
	<p>Women who are breastfeeding can be vaccinated. Out of an abundance of caution, women can consider suspending breastfeeding for 5-7 days after receiving the vaccine. If a woman feels she is unable to suspend breastfeeding and still wishes to get vaccinated, she can be vaccinated.</p>
<b>Q10</b>	<b>[Added 30 Jan] How soon after vaccination can a woman try to conceive? Can a woman be vaccinated if she is pregnant? If she received the first dose of vaccine and then became pregnant, can she get the second dose?</b>
	<p>Women who are planning a pregnancy are advised to consider deferring conception for 1 month after completing the second dose, out of an abundance of caution. This does not apply to male vaccine recipients.</p> <p>There is currently not enough evidence to advise on the use of COVID-19 vaccines during pregnancy. It is recommended that pregnant women defer vaccination until more data become available. They may receive the COVID-19 vaccine after delivery.</p> <p>Women who become pregnant after the first dose and before the second dose should not receive the second dose of vaccine, but should postpone it until after delivery.</p>
<b>Q11</b>	<b>Is COVID-19 vaccination safe for those with chronic illnesses such as hypertension, high cholesterol and diabetes?</b>
	<p>The study population for Pfizer-BioNTech’s phase 3 trials included persons with medical comorbidities, who were at risk of serious, life-threatening disease and death from COVID-19 infection, and there were no safety concerns reported in this group. Persons with chronic illnesses are recommended to receive the vaccine for personal protection as well as protecting their loved ones.</p>
<b>Q12</b>	<b>What other information is not yet available for the COVID-19 vaccination at this stage?</b>

	<p>We are conducting further review and monitoring of long-term data from ongoing vaccine trials with regard to the following uncertainties:</p> <ol style="list-style-type: none"> <li>Duration of protection and long-term persistence of efficacy.</li> <li>Vaccine efficacy against asymptomatic infection and severe disease, and the extent the vaccine is able to prevent transmission.</li> <li>Vaccine safety and efficacy for specific subgroups which have not been adequately studied. This includes children under 16 years old, pregnant and lactating women, and immunocompromised individuals.</li> <li>Very rare serious adverse events (e.g. vaccine-associated disease enhancement risk), which may only be picked up in the longer-term.</li> </ol>

### **Section III: Singapore's COVID-19 Vaccination Programme**

<b>Q1</b>	<b>Which groups are prioritised groups to receive the vaccination, and what is the rationale for prioritising them?</b>
	<p>There is a general consensus globally on the need to prioritise vaccination based on the following principles:</p> <ol style="list-style-type: none"> <li>Sustain healthcare and COVID-19 response systems</li> <li>Reduce morbidity and mortality among those at greatest risk</li> <li>Protect those at increased risk due to their living or working conditions (e.g. settings with the potential for rapid transmission and large outbreaks)</li> <li>Maintain the function of society as a whole with a view to maximise benefits and minimise harms.</li> </ol> <p>As vaccine supply will arrive in Singapore in batches over several months as manufacturers increase their production of vaccines, vaccination should start with groups who are at greater risk and hence most in need of COVID-19 vaccination, including healthcare workers and COVID-19 frontline workers, as well as vulnerable groups at greater risk of severe disease from COVID-19 infection, such as the elderly.</p>
<b>Q2</b>	<b>Are PRs, persons on Long Term Visitor Pass, Employment Pass, S Pass, Work permit, and dependant pass holders considered long-term residents in Singapore, and eligible for vaccination for free?</b>
	<p>Yes, persons on Long Term Visitor Pass, Employment Pass, S Pass, Work permit, and dependant pass holders will be eligible for COVID-19 vaccinations for free when it is made available to them.</p>
<b>Q3</b>	<b>Will Singaporeans and Permanent Residents residing overseas be given the vaccines?</b>
	<p>Vaccinations will be offered in Singapore, and Singaporeans and Permanent Residents medically eligible for the vaccinations will be able receive them here (i.e. if they fly back to Singapore) when it is made available to them.</p>

<b>Q4</b>	<b>Which vaccine will we get? Will we be able to choose which brand of vaccines we receive?</b>
	To date, only the Pfizer-BioNTech COVID-19 vaccine has been authorised for pandemic use by the Health Sciences Authority (HSA). We will also consider which vaccines are most appropriate for different population subgroups in Singapore.
<b>Q5</b>	<b>How is the vaccine administered?</b>
	This vaccine is given as an injection into the muscle of your upper arm and consists of 2 doses. You need both doses to have the full vaccine protection, and for the protection to last as long as possible.
<b>Q6</b>	<b>[Updated 30 Jan] How will the government assist persons who suffer from serious side effects following vaccination? Do current insurance policies cover serious side effects related to vaccines?</b>
	<p>As with all medications and established vaccines, there is a small risk of serious side effects that may occur post-vaccination. Such serious side effects may not be attributable to a specific individual or party, but are unintended.</p> <p>In the rare event of serious side effects that are assessed to be related to the COVID-19 vaccines administered in Singapore, MOH has introduced a vaccine injury financial assistance programme for COVID-19 vaccination (VIFAP) to provide financial assistance for affected persons. VIFAP is intended to give a greater peace of mind for those taking the vaccination.</p> <p>To qualify for the VIFAP, individuals must be a Singapore Citizen, Permanent Resident or long-term pass holder who had received the COVID-19 vaccination in Singapore [1] and experienced a serious side effect that is potentially life-threatening or fatal that required inpatient hospitalisation or caused persistent incapacity or disability. A doctor must assess if the serious side effects are linked to the COVID-19 vaccination received by the individual.</p> <p>As the severity of serious side effects can be broad-ranging and the clinical assessment by doctors may vary, all VIFAP applications will be assessed and adjudicated by a MOH-appointed independent clinical panel comprising experts in relevant fields such as neurology, immunology and infectious diseases.</p> <p><i>[1] Using COVID-19 vaccines which are approved under the Health Sciences Authority (HSA)'s Pandemic Special Access Route (PSAR) and/or registered under the Health Products Act.</i></p>
<b>Q7</b>	<b>[Added 30 Jan] What type of financial assistance will I receive from the Vaccine Injury Financial Assistance Programme (VIFAP)?</b>



	<p>The VIFAP will provide the following tiers of financial assistance:</p> <ol style="list-style-type: none"> <li>i. A one-time pay-out of up to \$10,000 will be provided to an eligible individual who is hospitalised but subsequently recovers from medically significant serious side effects caused by the COVID-19 vaccination; and</li> <li>ii. A one-time pay-out of \$225,000 will be provided to an individual who dies or suffers permanent severe disability as a result of the COVID-19 vaccination.</li> </ol> <p>Any individual who experiences serious side effects after their COVID-19 vaccination can receive financial support through applicable healthcare schemes, such as MediShield Life and subsidies at our public healthcare institutions. If you have private insurance, you may wish to check with your insurance provider on your coverage details.</p> <p>Please refer to this press release for more details on VIFAP <a href="#">&lt;link to MOH Press Release “Updates on COVID-19 Vaccination Programme” (issued on 28 Jan 2021)&gt;</a></p>
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#### **Section IV: Post-vaccination matters**

<b>Q1</b>	<b>Are there any side effects? What should I do if I suffer from any side effects?</b>										
	<p>The vaccine has been assessed to be safe for use. However, you may experience common side effects, similar to other vaccines. Most side effects are mild or moderate, and usually get better within a few days. The table below lists some common side effects that have been reported with this vaccine, and how to manage them:</p> <table border="1" data-bbox="320 1473 1385 1818"> <thead> <tr> <th data-bbox="320 1473 852 1518"><b>Side Effects</b></th> <th data-bbox="852 1473 1385 1518"><b>How to Manage</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="320 1518 852 1599">Pain, redness, swelling at the injection site</td> <td data-bbox="852 1518 1385 1693" rowspan="3">Paracetamol 1 to 2 tablets every 6 hours as needed</td> </tr> <tr> <td data-bbox="320 1599 852 1644">Fever, chills</td> </tr> <tr> <td data-bbox="320 1644 852 1693">Headache, muscle pain, joint pain</td> </tr> <tr> <td data-bbox="320 1693 852 1738">Tiredness</td> <td data-bbox="852 1693 1385 1738">Rest</td> </tr> <tr> <td data-bbox="320 1738 852 1818">Lymph node swelling at neck or arms</td> <td data-bbox="852 1738 1385 1818">Usually gets better by itself in a week or so</td> </tr> </tbody> </table> <p>See a doctor if:</p> <ul style="list-style-type: none"> <li>• The side effects persist or get worse</li> <li>• The fever persists for more than 48 hours (2 days)</li> </ul>	<b>Side Effects</b>	<b>How to Manage</b>	Pain, redness, swelling at the injection site	Paracetamol 1 to 2 tablets every 6 hours as needed	Fever, chills	Headache, muscle pain, joint pain	Tiredness	Rest	Lymph node swelling at neck or arms	Usually gets better by itself in a week or so
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	<p>In very rare cases, this vaccine can cause a severe allergic reaction. Signs of a severe allergic reaction include: difficulty breathing, swelling of your face, throat, eyes or lips, a fast heartbeat, dizziness and weakness, a bad rash all over your body. <b>If you experience a severe allergic reaction, seek medical attention immediately.</b> Call 995 or go to the nearest A&amp;E immediately.</p>
<b>Q2</b>	<b>How long do we have to observe and report the side effects from the vaccine? Which side effect takes the longest to manifest?</b>
	<p>Most side effects will resolve within 3 days. Though uncommon, lymphadenopathy (lymph node swelling) can be vaccine-related, and takes around 7 to 10 days to resolve.</p>
<b>Q3</b>	<b>Would there be post-vaccination monitoring in place, e.g. will some staff and residents continually be tested for COVID-19 virus antibodies, to determine durability of the vaccination response?</b>
	<p>As a condition for the interim authorisation under PSAR, vaccine companies including Pfizer-BioNTech are required to monitor the longer term efficacy of the vaccine to determine the duration of protection against COVID-19, as well as follow up on the safety of the vaccine for a longer period of time to determine its full safety profile. Vaccine companies must continue submitting the longer term follow up data to HSA to assure the continued effectiveness and safety of the vaccine. HSA will actively review the data to ensure that the benefits of the vaccine continue to outweigh the known risks. When sufficient data is available for full registration, the companies will be required to file an application to transit the status of the product from PSAR interim authorisation to full registration.</p> <p>Research studies will be conducted to better understand the impact of the COVID-19 vaccination, including the durability and the extent the vaccine is able to prevent transmission. Hence, vaccinated persons may be recruited for such studies.</p>
<b>Q4</b>	<b>With COVID-19 vaccines deployed, is there still a need for public health measures such as donning of full PPE among healthcare workers?</b>
	<p>We are still monitoring clinical data on the duration of the vaccine's protection and its effectiveness in preventing transmission. As such, until a significant proportion of the population is vaccinated, we will need to continue to practice public health measures, such as safe distancing, mask wearing and good hand hygiene, so that we can continue to protect ourselves and our loved ones.</p>

<b>Q5</b>	<b>What sorts of activities will vaccinated persons be allowed to do (e.g. karaoke)? Will they be exempted from measures such as pre-event and/or pre-departure/ entry to Singapore testing? What about public health measures such as quarantine?</b>
	<p>While there is evidence that COVID-19 vaccines are effective in preventing symptomatic disease, the extent of their ability in preventing transmission to others is still being studied.</p> <p>Hence, vaccinated persons should still continue to adhere to public health and general safe management measures.</p>
<b>Q6</b>	<b>Can I use the proof of vaccination for travel purposes? Will it be recognised by other countries?</b>
	Jurisdictions have different travel restrictions and requirements, please verify jurisdictions' restrictions and requirements before you travel.
<b>Q7</b>	<b>Will existing measures such as RRT, ARI testing and donning of PPE by staff still be required for those who are vaccinated?</b>
	Public health measures, such as safe distancing, mask wearing and good hand hygiene, should continue to be practised. MOH will continue to assess the local situation in the review of the various public measures. Amongst others, this will take into account considerations such as the take-up of vaccine in the population, the availability of data on the vaccine's duration of protection and the extent of its ability to prevent transmission.