

# COVID-19 Vaccines

## NOTE

*This paper is an update to, and supersedes, 21SAB09, of the same name.*

## SUMMARY

Vaccines against SARS-CoV-2 virus are widely available in many parts of the world and aircrews are being vaccinated. Vaccination should be voluntary, although it is strongly recommended. The risks of COVID-19 are considered to be greater than the risks of vaccinations. Pilots are encouraged to take any COVID-19 vaccine approved by their public health and/or aviation authority when it is offered to them.

## BACKGROUND INFORMATION ON COVID-19 VACCINES

There are three main ways that vaccines for viruses work to trigger an appropriate immune system response:

1. They use a deactivated version of the whole virus;
2. They use just the parts of the virus;
3. They use genetic material that provides instructions to the body for making specific proteins which simulate parts of the virus.

All these methods are used in different COVID-19 vaccines to train the immune system to recognize and fight the SARS-CoV-2 virus. Most of the vaccines that have been approved currently require two doses.

Detailed information on each vaccine is available on the WHO website:

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines/explainers>

## SHOULD COVID-19 VACCINATION BE MANDATORY?

No, vaccinations should not be mandatory. However, they are highly recommended for personal protection, herd immunity, and to slow the spread of the virus. The position of ICAO at the time of publication is that vaccines should not be required for travel. There are many open questions about vaccination requirements on the operator level (can the operator require that crews take the vaccine?), the national level (will vaccination be required for entry?), and the global level (will all vaccines approved at a national level be

accepted by other States?). Developments in these areas should be closely monitored by Member Associations.

### VACCINATION AFTER HAVING HAD COVID-19

Immunity after infection is unpredictable. For some people, natural immunity may be strong and long-lasting whereas some do not develop immunity at all. COVID-19 vaccines generate both antibody and T cell immune responses which are often much stronger and more consistent than immunity from natural infection. In addition, some new COVID-19 variants may not be recognized by a person's natural immunity, but the vaccines may recognize them. Therefore, it is recommended that pilots who have already had COVID-19 should still be vaccinated.

### DO DIFFERENT VACCINES HAVE DIFFERENT RATES OF EFFICACY?

All the approved vaccines have been shown to prevent severe cases of COVID-19. Thus far, it is not possible to recommend any one specific vaccine over another. The efficacy rates of each vaccine have many variables, including the population studied and the prevalence and different variants of the virus.

The efficacy of the vaccine seems to decrease with time. IFALPA encourages that required levels of immunity and timelines for booster vaccination be determined by WHO and standardized globally.

The recommendation is to take any vaccine offered as long as it is approved by your public health and/or aviation authority. If you are unsure if the vaccine is approved, consult your aeromedical examiner. If you are given a choice of vaccines, it is advisable to seek professional medical advice and make an informed decision.

More data on the efficacy of vaccines will be available soon. One possible scenario is that SARS-CoV-2 virus will remain a circulating virus which continues to change in a similar way as the influenza virus. This could mean that there is a need for annual vaccinations, with adaptations made to each year's vaccine to protect against new variants of the virus.

### POSSIBLE SIDE EFFECTS

Every vaccine may have side effects. These are usually mild and much less serious than developing COVID-19 or complications associated with COVID-19. Side effects usually resolve within a few days. Common side effects of the COVID-19 vaccine include tenderness, swelling and/or redness at the injection site, headache, muscle ache, feeling tired, and fever (temperature above 37.8°C).

It is recommended to seek medical advice if you experience intense, long lasting, or uncommon/unexpected side effects.

### GROUNDING PERIOD AFTER VACCINATION

There is no universal recommendation for a specific grounding period after vaccination. IFALPA recommends following your own Authorities' recommendations when available. For example, the FAA and EASA recommend a 48 hour no-fly interval after vaccination. In any case, pilots should not have any symptoms from side effects upon returning to flight duties.

### PRIORITIZATION OF AIRCREW

IFALPA and ITF (International Transport Federation) have published a Joint Statement calling for aviation workers to be given priority for vaccination against COVID-19 once health care workers and vulnerable groups have been protected. A similar Joint Statement by ICAO, ILO, IMO, IOM, and the WHO was published in March 2021.

### TESTING AND QUARANTINE MEASURES FOR THE IMMUNIZED

ICAO CART recommendation 19 calls Member states to consider alleviating or exempting testing and/or quarantine measures for individuals who have been fully vaccinated or those with a history of previous SARS-CoV-2 infection who are no longer infectious. The alleviations and exemptions should be made in accordance with a State's accepted risk threshold, national framework, the COVID-19 situation, and the multilayer risk management framework described in the Take-off: Guidance for Air Travel through the COVID-19 Public Health Crisis.