

MUST KNOW!

“COVID-19 vaccine”



As of 27/04/2021

01

Vaccine fact sheet

02

Who should be vaccinated?

03

Possible side effects

04

Vaccination for Expats

05

Frequently asked Q&A
























01

Vaccine fact sheet

Updates on Vaccines

- Current situations of COVID-19
 - Domestic VS. Global
 - Variants in African and UK
- Vaccine Development
 - Approved vaccines by USA FDA
 - Moderna
 - Pfizer-BioNTech
 - Astra Zeneca
 - Sputnik V
 - Johnson & Johnson
 - Trends of vaccination

How some of the Covid-19 vaccines compare

Company	Type	Doses	Storage
 Oxford Uni- AstraZeneca	Viral vector (genetically modified virus)	x2 	 2 to 8°C (6 months)
 Moderna	RNA (part of virus genetic code)	x2 	 -25 to -15°C (7 months)
 Pfizer-BioNTech	RNA	x2 	 -80 to -60°C (6 months)
 Gamaleya (Sputnik V)	Viral vector	x2 	 -18.5°C (liquid form) 2 to 8°C (dry form)
 Sinovac (CoronaVac)	Inactivated virus (weakened virus)	x2 	 2 to 8°C
 Novavax	Protein-based	x2 	 2 to 8°C
 Janssen	Viral vector	x1 	 2 to 8°C (3 months)

Source: UK government, Reuters

Vaccine Benefits

- **Reducing chance of infection**
 - Efficacy widely varies among different manufacturers (50 % - 90%)
- **Mitigating disease severity**
 - Decreased severe symptoms
 - Minimized complications
- Add to the number of people in the community who are protected from getting COVID-19 — making it harder for the disease to spread and contributing to **“herd immunity”**
- Prevent the COVID-19 virus from spreading and replicating, which allows it to mutate and possibly become **more resistant to vaccines**

Vaccine Limitations



- **Benefits VS. Risks (long-term studies)**
- **Special populations**
 - Adolescent < 18 years
 - Pregnancy and breastfeeding
- **Immunization patterns**
 - Repeated dose (s)
 - Lasting efficacy
- **Interchangeability of vaccines**

As of 27/04/2021

Types of COVID-19 Vaccine

Inactivated virus vaccine

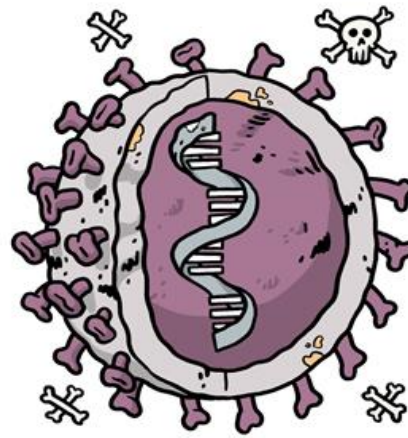
Viral vector vaccine

mRNA vaccine

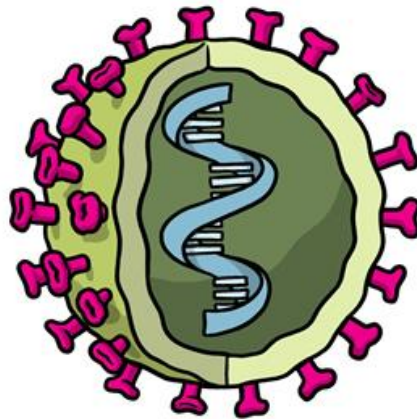
Protein subunit vaccine

- Different administration intervals
- A variation in efficacy among different age groups

<https://www.who.int/news-room/feature-stories/detail/the-race-for-a-covid-19-vaccine-explained>



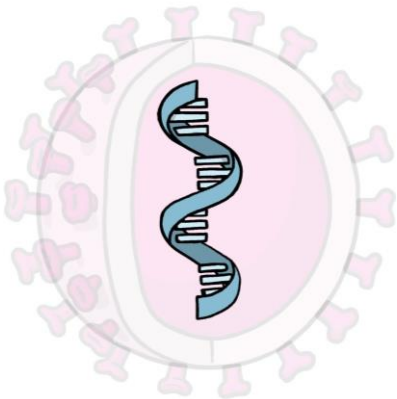
Inactivated vaccine



Viral vector vaccine



Parts that trigger the immune system



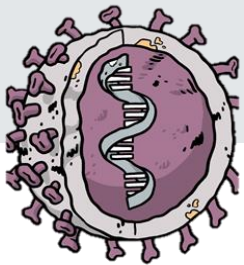
Just the genetic material

As of 27/04/2021

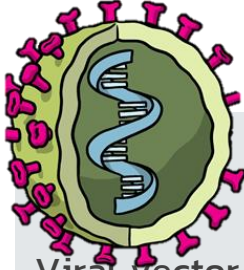
Types of COVID-19 vaccine

Inactivated virus vaccine:

Inactivated virus vaccine uses SARS-CoV-2 viruses whose genetic materials have been destroyed either by chemicals, radiation or heat. Thus they cannot replicate, but can still trigger an immune response to build up antibodies to fight against the disease.



01



Viral vector vaccine:

Viral vector vaccine uses a modified version of a different virus, called the vector, to deliver important instructions to our cells. For COVID-19 viral vector vaccine, the vector (harmless virus) inserted with genetic material of SARS-CoV-2 enters a cell in our body and then uses the cell's machinery to produce a harmless piece of the virus – a spike glycoprotein that causes COVID-19. Later on, our immune system recognizes it as a foreign substance which triggers our immune system to begin producing antibodies and activating other immune cells to fight off the disease.

02

Messenger RNA (mRNA) vaccine:

COVID-19 mRNA vaccine gives instructions for our cells to make a harmless piece of viral spike glycoprotein. Once this genetic material gets into human cells, it uses our cells' protein factories to produce the antigen that subsequently triggers an immune response to fight against the disease.



03



Protein subunit vaccine:

Protein subunit vaccine uses only fragments of specific protein of SARS-CoV-2 virus to trigger an immune response. By doing so, it boosts up immunity to fight off COVID-19 without causing any harm to the body.

04



02

Who should be
vaccinated?

Who should be vaccinated ?

- Different regulations worldwide
- **Priority of COVID-19 vaccination in Thailand**
 - Medical personnel in government and private sectors
 - Patients with underlying conditions, e.g. respiratory and cardiovascular diseases
 - People aged over 60
 - Immigration parties
 - General public

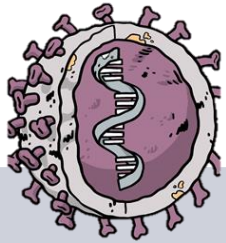


Contraindications

- People **< 18 years** of age (need more clinical studies)
- Previous history of **serious allergic reactions** to any vaccine
- Previous history of **blood transfusion**, plasma or other blood component exchange, including immunoglobulin, antiviral drugs or antibody therapy against COVID-19 in the last 90 days
- Patients with **confirmed SARS-Cov-2 infection** in the last 10 days (COVID-19 vaccine can be considered at least 3 months after being infected).
- Patients with **underlying diseases** with uncontrollable symptoms:
 - chest discomfort
 - difficulty breathing
 - shortness of breath and palpitation
- Patients with **neurological diseases** or nervous system disorders. If needed, vaccination needs to be advised by the specialists.
- **Pregnant or breastfeeding women** or women who have planned for pregnancy. Vaccination might be considered if the expert's opinion can be obtained.
- **Immunocompromised patients** or patients who take immunosuppressant drugs. If needed, vaccination needs to be advised by the specialists.
- People with **coagulation disorders**, e.g. bleeding and low platelet count (thrombocytopenia) and patients who take anticoagulant or antiplatelet medicines. If needed, vaccination needs to be advised by the specialists.



COVID-19 Vaccines available in Thailand*

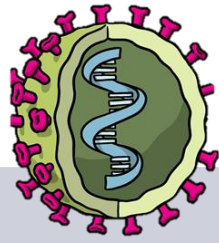


SinoVac

Inactivated
vaccine

0.5 ml IM x 2 doses
(2-4 weeks apart)

Age 18-59

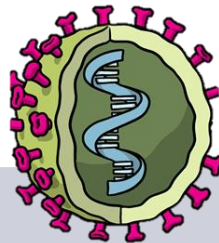


AstraZeneca

Viral vector
vaccine

0.5 ml IM x 2 doses
(4-12 weeks apart)

Age over 18



Johnson&Johnson

Viral vector
vaccine

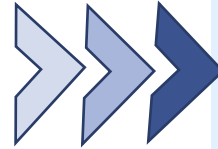
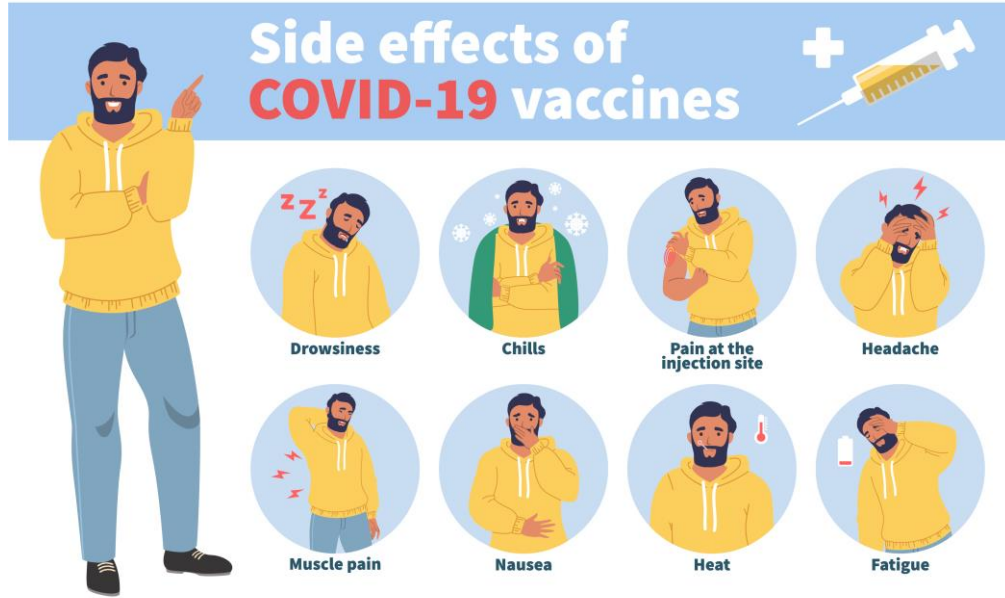
0.5 ml IM
single dose

Age 18-59



03 Possible side effects

Possible side effects



Mild to moderate side effects

- Pain, redness or swelling at the injection site
- Low-grade fever
- Headache
- Nausea/ Vomiting
- Fatigue

Serious side effects

- + High-grade fever / Chills
- + Heart palpitation
- + Difficulty breathing or chest discomfort
- + Weakness or paralysis of the face or lip
- + Muscle weakness or severe joint pain
- + Unusual bruise, spots or bleeding
- + Skin rash on the body or blood blisters under the skin
- + Swollen face, throat or all over the body
- + Convulsion
- Unconsciousness



“Medical attention is urgently needed”

Post-vaccination care



Adverse reaction observation

- **A 30-minute observation** at vaccine clinic
- Special concern: **1-night package** as IPD case with vital sign and side effect monitoring under supervision of physician



Vaccination booklet and tracking

- Vaccination tracking : หมอพร้อม application (Mho-Prom)
- Vaccination booklet for international traveling

As of 27/04/2021



04

Vaccination for Expats

Vaccination for Expats

- **Individual and corporate services**
 - Mobile services
- **Service Location:**
 - COVID-19 Vaccination Clinic, 1st floor, R-Building, Bangkok Hospital Headquarter
- **Price (per shot):**
 - Single dose
 - Single dose with 1-night stay each dose
 - Complete dose
 - Complete dose with 1-night stay each dose
- **Visit arrangement (group reservation)**





05

Frequently
asked Q&A

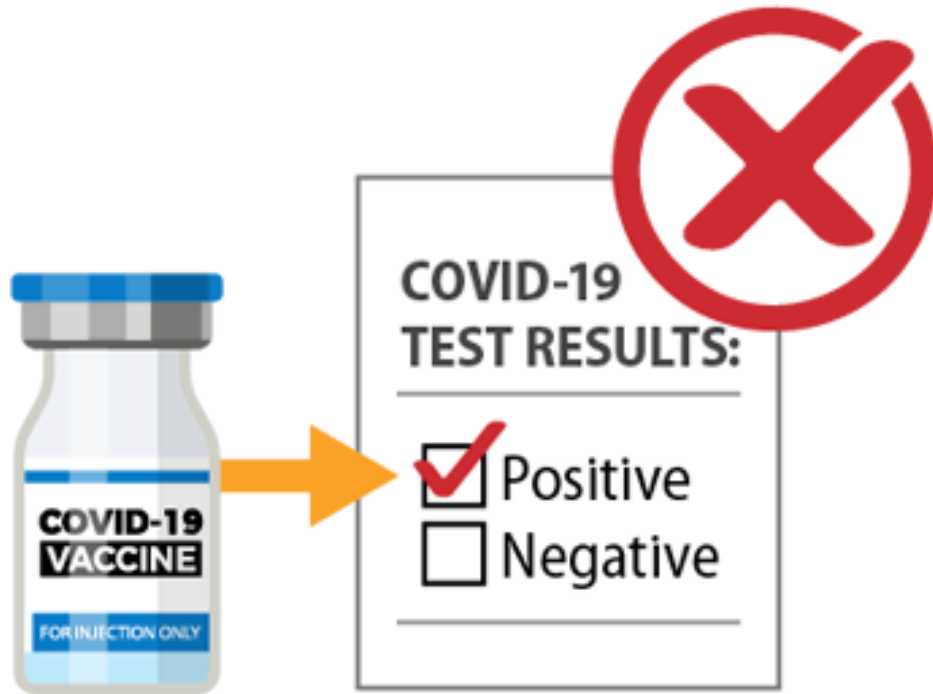
Can a COVID-19 vaccine make me sick with COVID-19?



ANSWER: NO!!

- None of the authorized and recommended COVID-19 vaccines contains the live virus that causes COVID-19.
- COVID-19 vaccine **CANNOT** make you sick with COVID-19.
- It typically takes a few weeks for the body to build immunity (protection against the virus that causes COVID-19) after vaccination.
- A person could be infected with the virus that causes COVID-19 just before or just after vaccination and still get sick. This is because the vaccine has not had enough time to provide protection.

After getting a COVID-19 vaccine, will I test positive for COVID-19 on a viral test?



ANSWER: NO!!

- Neither the recently authorized and recommended vaccines nor the other COVID-19 vaccines currently in clinical trials can cause you to test positive on viral tests, which are used to see if you have a current infection.
- If your body develops an immune response—the goal of vaccination—there is a possibility you may test positive on some antibody tests.
- Antibody tests indicate you had a previous infection and that you may have some level of protection against the virus.
- Experts are currently looking at how COVID-19 vaccination may affect **antibody testing results**.

If I have already had COVID-19 and recovered, do I still need to get vaccinated with a COVID-19 vaccine?

ANSWER: YES!!



- Yes, you should be vaccinated regardless of whether you already had COVID-19.
- That is because experts do not yet know how long you are protected from getting sick again after recovering from COVID-19.
- Even if you have already recovered from COVID-19, it is possible—although rare—that you could be infected with the virus that causes COVID-19 again.
- Viral testing to assess for acute SARS-CoV-2 infection or serologic testing to assess for prior infection is not recommended for the purposes of vaccine decision-making.

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>

<https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html>

Is it safe for me to get a COVID-19 vaccine if I would like to have a baby one day?



ANSWER: YES!!

- If you are trying to become pregnant now or want to get pregnant in the future, you may receive a COVID-19 vaccine when one is available to you.
- There is currently **NO evidence** that COVID-19 vaccination causes any problems with pregnancy, including the development of the placenta.
- There is **NO evidence** that fertility problems are a side effect of any vaccine, including COVID-19 vaccines.

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html>

Should you mix and match COVID-19 vaccines?

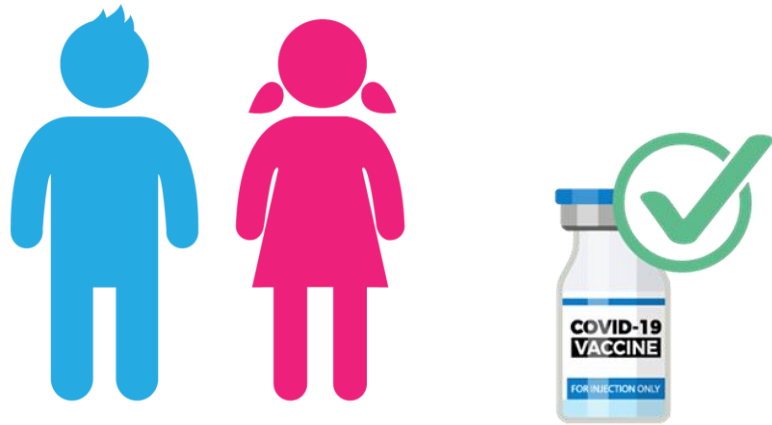


ANSWER: Need more studies

- If some combinations work, they may provide needed flexibility whenever production of a vaccine falters, as often happens.
- And there is even a chance that mixing doses of two different vaccines may boost the protection against COVID-19.
- First trial: examining matching a dose of the Sputnik V vaccine with a booster dose of AstraZeneca (similar vaccine type).
- Second trial: examining a combination of the AstraZeneca and Pfizer-BioNTech vaccines, which mixes two different technologies, is just getting started, and others are under discussion.
- The U.S. Centers for Disease Control and Prevention has **discouraged people from mixing vaccines unless there are “exceptional situations,”** such as a shortage of the vaccine they received first because of production or distribution hiccups. In the United Kingdom, Public Health England has taken a similar position.

Can children and adolescents be vaccinated?

ANSWER: Need more studies



- Adolescents aged 16–17 years are included among people eligible to receive the Pfizer-BioNTech COVID-19 vaccine under the EUA.
- While vaccine safety and efficacy data in this age group are limited, there are no biologically plausible reasons for safety and efficacy profiles to differ from those observed in people 18 years of age and older.
- Adolescents aged 16–17 years who are part of a group recommended to receive a COVID-19 vaccine may be vaccinated with the Pfizer-BioNTech COVID-19 vaccine with appropriate assent. Children and adolescents younger than 16 years of age are not authorized to receive the Pfizer-BioNTech COVID-19 vaccine at this time.
- Children and adolescents younger than 18 years of age are not authorized to receive the Moderna or Janssen COVID-19 vaccines at this time.

Can I get a COVID-19 vaccine if I have an existing health condition

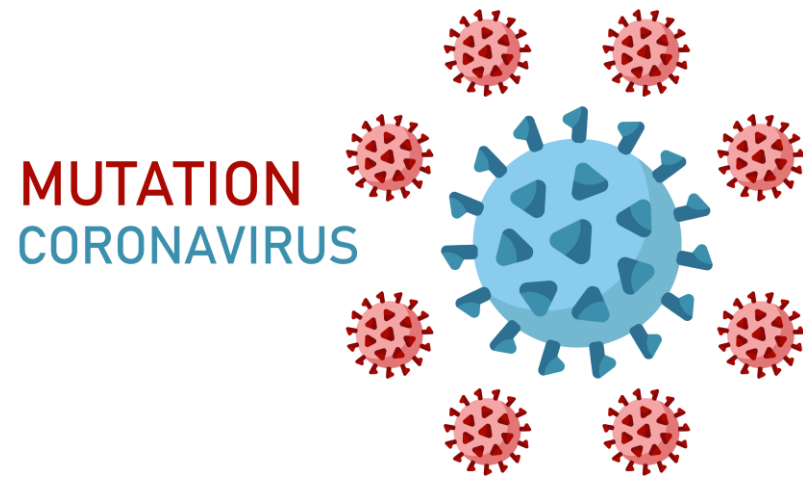


ANSWER: So far, YES!!

- Yes, if you have an existing health condition you can get a COVID-19 vaccine — as long as you haven't had an allergic reaction to a COVID-19 vaccine or any of its ingredients.
- But there is limited information about the safety of the COVID-19 vaccines in people who have weakened immune systems or autoimmune conditions.

<https://www.cdc.gov/vaccines/covid-19/info-by-product/clinical-considerations.html>

Do the COVID-19 vaccines protect against the COVID-19 variants?



ANSWER: Need more studies

- The COVID-19 vaccines were developed based on the spike glycoprotein before it contained the mutations identified in the variants.
- While research suggests that COVID-19 vaccines have **lower efficacy against the variants**, the vaccines still appear to provide protection against severe COVID-19.
- **Further research is needed.**
- Vaccine manufacturers are also creating **booster shots** to improve protection against variants.

<https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-vaccine/art-20484859#vaccine-benefits>

Other expected problems

- Which vaccine is the best? Both efficacy and safety aspects.
- Is there any chance to get Pfizer, Moderna and J&J vaccines approved in Thailand?
- How much does it cost (per shot/per course)?
- When will it be available in BHQ?
- Will it be available in network B+ hospital?
- What should I do if I develop side effects after vaccination?
- Can different brands be used in combination?
- What are future trends of vaccine?
- Do we have to test for immunization after vaccination? When?
- Is this vaccine covered by insurance or corporate payers?

Question:

1. What is the vaccine program for expats (non Thais) in Thailand?

Ans. Vaccine services will be available for both Thais and expatriates as soon as health authorities officially imposes. Services, as planned, include:

- Vaccination with 30-minute observation as OPD cases
- Vaccination with hospitalization for observation as IPD cases

2. Can we register at hospitals? If so, which hospitals and what is the process, requirements and cost

Ans. Yes, registration for vaccination can be done at Bangkok Hospital Headquarters.

Process involves:

- Registration (as individual and corporate) with valid original passport
- Reservation via email / contact center
- Vaccine administration as scheduled and observation of possible side effects
- Tracking process with MhoPrompt application

Costs during vaccination (per shot):

- OPD case: vaccine / hospital and doctor fees
- IPD case: vaccine / IPD room/ meals/ hospital and doctor fees / medical supplies

Question:

2. What are the differences of vaccine types and any restrictions on what will be supplied in Thailand?

- Recently, there are 4 main types of COVID-19 vaccines. More vaccine developments against variants
- Restrictions on supply: Vaccine supply for private sectors is instructed by health authorities, depending on national policy. All brands as allowed will be available at Bangkok Hospital Headquarters.

Thank you

