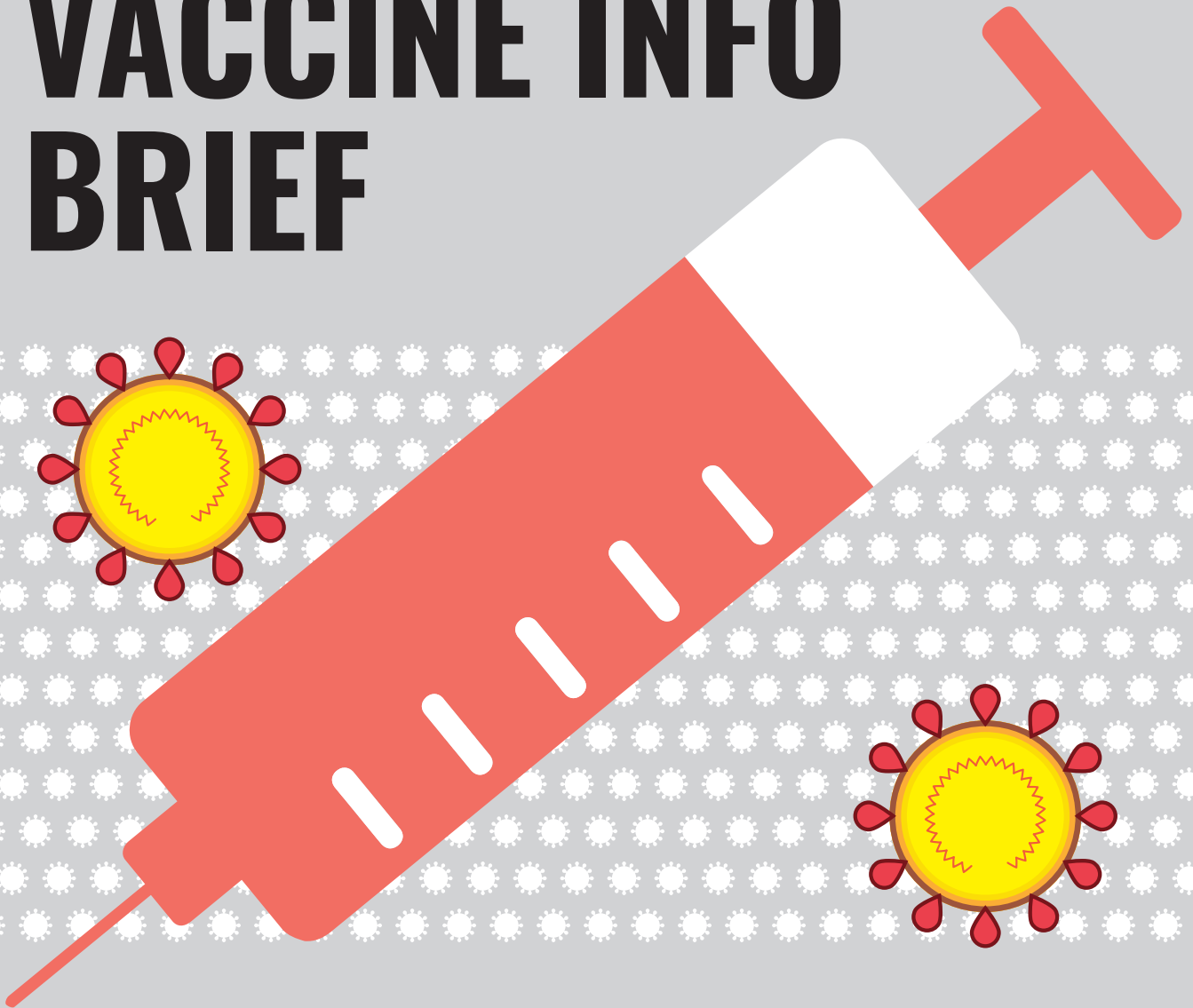


THAILAND COVID-19 VACCINE INFO BRIEF



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**THE INFORMATION IN THIS PUBLICATION CHANGES
RAPIDLY, CHECK FOR UPDATES THROUGH OFFICIAL
GOVERNMENT SITES.**

JUNE 2021

COVID-19 SITUATION IN THAILAND DASHBOARD

By the Department of Diseases Control at

<https://ddc.moph.go.th/viralpneumonia/index.php>

COVID-19 THAILAND UPDATES

By Thai MoPH at

<https://www.facebook.com/thaimoph/>

or <https://twitter.com/thaimoph>

and By the Government Public Relations Department at

<https://www.facebook.com/informationcovid19/>

or <https://twitter.com/Covid19Thailand>

COVID-19 VACCINE UPDATE

By the National Vaccine Institute at

<https://www.facebook.com/nvikm/>

or https://twitter.com/NVITH_Official

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NEW VACCINES CAN HELP PREVENT COVID-19

Vaccines, including the ones that prevent COVID-19, work by using a harmless version of the virus, or pieces of it, to trigger an immune response. These immune responses can stop us from becoming ill with COVID-19.

These vaccines are not a treatment for COVID-19. They don't always prevent people from becoming infected with SARS-CoV-2, the virus that causes COVID-19, but they can prevent most people from becoming seriously ill, needing to be hospitalized, or dying from COVID-19. Vaccines also reduce the burden from COVID-19 on our healthcare system.

Some people have concerns because these vaccines were developed so quickly, although the technology that all of these vaccines are based on has been studied for decades. People have questions about how safe they are, how well they work, and what side effects they may cause. **Overall, the risk of severe side effects from getting vaccinated is so much smaller than the risk from COVID-19** – and we will learn more about side effects and adverse events as more people get vaccinated.

It is important for everyone to have access to these vaccines – to save lives and stop the coronavirus pandemic.

WHAT IS HERD IMMUNITY?

“

If we are safe, then our friends are safe too.

”

- Focus group participant

Herd immunity is also called community immunity. When most members of a community have become immune to a specific infection - either because they have recovered from it or because they have been vaccinated, the infection has nowhere left to go - since there are so few susceptible people.

The world is hoping to achieve community immunity to COVID-19, mainly by vaccinating enough people. This may be difficult, because:

- Not enough people have access to COVID-19 vaccines
- People in every country and across different areas of each country will need to be vaccinated
- Changes in the coronavirus may make vaccines less effective
- It will take time to vaccinate all adolescents and children. China has approved the Sinovac vaccine for ages 3 and up. The US, Canada and some countries in the EU recently approved the Pfizer vaccine for ages 12 and up. Ongoing and planned clinical trials of the Pfizer and Moderna vaccines in children ages six months and over should be done by the end of 2021

Information on vaccines is color-coded: mRNA vaccines are in green, viral vector vaccines are in red and inactivated vaccines are in blue.

APPROACHES TO COVID-19 VACCINES

Vaccine approach	Vaccine name and producer	Approved in Thailand ^{1,2}	WHO recommended	Results from clinical trials	Vaccine schedule*
mRNA/genetic approach Delivers spike protein-making instructions directly to our cells, to trigger an immune response	CVnCoV CureVac	✗	✗	Not available yet (in phase III)	2 shots, 4 weeks apart
	mRNA-1273 Moderna	✓	✓	94.1% effective at preventing illness	2 shots, 28 days apart
	BNT162b2/Comirnaty Pfizer/BioNTech	✓ Not procured yet	✓	95% effective at preventing illness	2 shots, 21 days apart
Viral vector approach Uses a harmless, inactive virus or viruses (called a vector), to deliver spike protein-making genes to our cells, which triggers an immune response	AZD1222 AstraZeneca/Oxford in partnership with Siam BioScience	✓ Provided for Thais and foreigners	✓	76% effective at preventing illness and 100% effective at preventing hospitalization and death	2 shots, 10-12 weeks apart; dosing still under study and varies by country
	Ad26.COVS.2.S Johnson & Johnson	✓	✓	61- 72% effective at preventing illness and 100% effective at preventing hospitalization and death	One shot
	Sputnik V/ Gam-Covid-Vac Gamaleya	Application has been submitted	✗	(Interim results) 91.6% effective at preventing illness	2 shots, 21 days apart
Inactivated approach Uses a harmless version of the coronavirus to trigger an immune response	Covaxin Bharat Biotech	Application has been submitted	✗	(Interim results) 78% effective at preventing mild, moderate and severe COVID-19 and 100% effective at preventing hospitalization	2 shots, 4-6 weeks apart
	BBIBP-CorV Sinopharm-Beijing	✓	✓	78.1% effective at preventing illness and 78.7% effective at preventing hospitalization in adults ages 18-59	2 shots, 21 to 28 days apart
	CoronaVac Sinovac	✓ Provided for Thais and foreigners	✓	Ranges from 51% to 84% effective at preventing illness and 85% to 100% at preventing hospitalization	2 shots, 14 or 28 days apart

* National guidelines may differ according to the number of cases, the vaccine supply, and as we learn more about vaccine schedules from research

- 1 Thai Food and Drug Administration (FDA Thai), Ministry of Public Health, 'สถานะวัคซีนโควิด-19 ของประเทศไทย อัปเดตข้อมูล ณ วันที่ 24 มิถุนายน 2564' [infographic], https://www.fda.moph.go.th/Pages/CV_Infographic.html, (accessed 29 June 2021).
- 2 Nursing Association for Prevention and Control of Infections (NAPCI), 'แนวทางการให้วัคซีนโควิด 19 ในสถานการณ์การระบาดปี 2564 ของประเทศไทย เดือนมิถุนายน 2564', Department of Disease Control, 2021, https://www.thainapci.org/2021/wp-content/uploads/2021/06/แนวทางการให้วัคซีนโควิด19_ปรับปรุ้ง_final01062564.pdf, (accessed 29 June 2021).

HOW EFFECTIVE ARE THE NEW COVID-19 VACCINES?

It can be hard to tell exactly how effective different COVID-19 vaccines are, for several reasons:

- Each person responds to vaccines differently
- In general, vaccines are more effective for younger people than older ones
- Clinical trials of these vaccines measured different things: some only tested people if they had COVID-19 symptoms, while others tested everyone in the trial
- Also, some clinical trials enrolled different groups of people, such as healthcare workers, who are at higher risk for COVID-19
- The coronavirus keeps changing, so some vaccines may be less effective than others against newer versions of the virus
- Trials were conducted in many countries, with different circumstances; some where more infectious versions of the virus were circulating; some mostly in healthcare workers; some in certain age groups only
- The vaccines have never been compared with each other in a clinical trial
- Some vaccines may be better at stopping people from becoming seriously ill and dying from COVID-19 than they are at preventing people from getting COVID-19.

Most COVID-19 vaccines require two shots. Vaccines need time to work - they become fully effective two weeks after the second shot. The J & J vaccine, which is one shot, becomes more effective as time goes on, and is more effective at 28 days after the vaccine than 14 days afterwards. People may need a yearly “booster” shot, aimed at new versions of the virus or to keep the immune response strong.

People who are exposed to COVID-19 can still get sick before their vaccine is fully effective. It is possible for fully vaccinated people to get COVID-19, but they are less likely to feel sick or become very ill than people who have not been vaccinated. Fully vaccinated people may be less likely to transmit COVID-19 than unvaccinated people, but more research is needed to confirm this.

SHOULD WE WAIT FOR THE BEST VACCINE?

The COVID-19 vaccines we have now are safe and very effective. Instead of waiting for something that could be better, the most important thing that we can do is make sure that everyone has access to existing vaccines, because the coronavirus epidemic is still raging. New versions of the virus that are more contagious – including some that may make people sicker and increase the need for hospitalization, or versions that can hide from our immune systems – are circulating. We need to stop the virus from spreading, and the best way to do this is by vaccinating as many people as possible, as quickly as we can (see What is Herd Immunity).

It is likely that the coronavirus will keep changing. This means we may need annual shots, called boosters, to protect us against new versions of the coronavirus.

ABOUT VIRUSES AND VARIANTS

After a virus enters a person's body, it makes copies of itself. Viruses make millions to billions of copies each day. Some copies may have changes, called mutations. Mutations can weaken viruses, making it harder for them to survive - or they can make them more contagious and/or more deadly.

The more people who have a virus, the more chances the virus has to mutate.

SARS-CoV-2, the virus that causes COVID-19, has infected more than 200 million people in just over 18 months, giving it many chances to mutate.

A group of viruses with the same mutations is called a variant. More contagious variants are circulating in many countries. Some of these variants are able to hide from the immune system. This means that people who have already had an older version of the virus can get re-infected with a new variant, and that COVID-19 vaccines based on older versions of the virus may be less effective against new variants.

Scientists have three categories for variants:

VARIANTS UNDER MONITORING (VOM)

are versions of the virus that scientists follow closely, to see if they are more contagious, and/or cause severe illness, and/or are able to hide from our immune system

VARIANTS OF INTEREST (VOI)

might be more contagious, and/or cause severe illness, and/or be able to hide from our immune system

VARIANTS OF CONCERN (VOC)

are known to be more contagious, and/or cause severe illness, and/or be able to hide from our immune system.

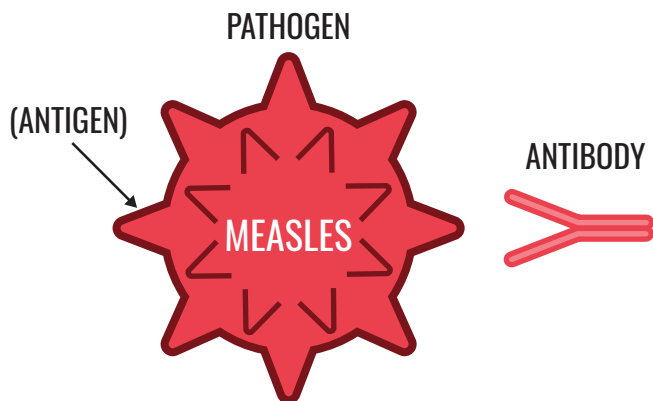
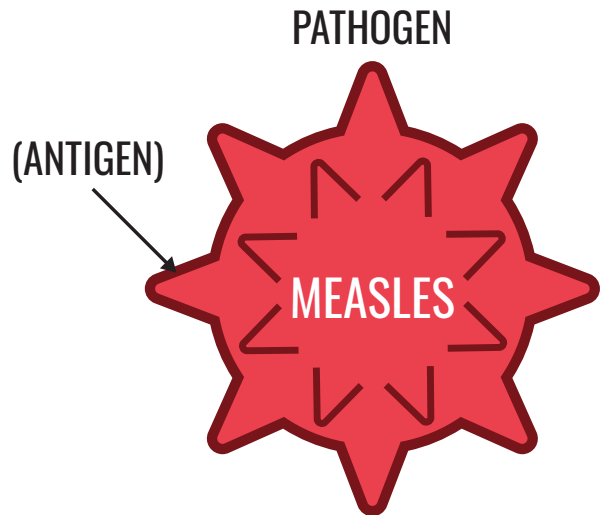
Originally, people referred to variants by a number and the name of the country where they were first found – but this has led to confusion, blame and stigma. Now they are named with a letter of the Greek alphabet. Some VOC are as follows:

- Alpha (also called B.1.1.7); more contagious and causes more serious illness
- Beta (also called B.1.351); more contagious, able to escape the immune system and causes more serious illness
- Gamma (also called P.1); more contagious, able to escape the immune system, and causes more serious illness
- Delta (also called B.1.617); more contagious, able to escape the immune system.

HOW DO OUR IMMUNE SYSTEMS WORK?

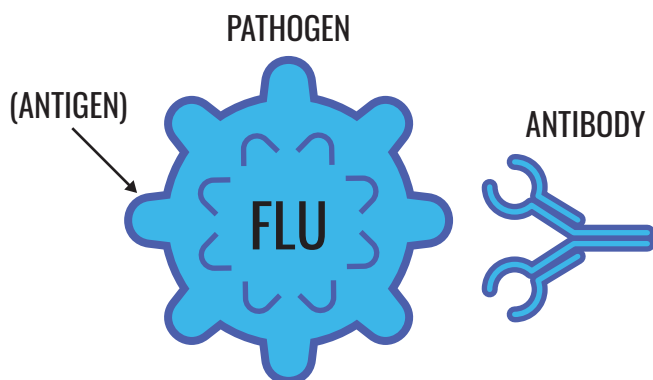
When viruses, bacteria or other invaders, called pathogens, enter the body, our immune system works in different ways to stop them from making us ill.

Each pathogen has a unique antigen on the outside. Our immune system can recognize each one, just as we can recognize a person's face.



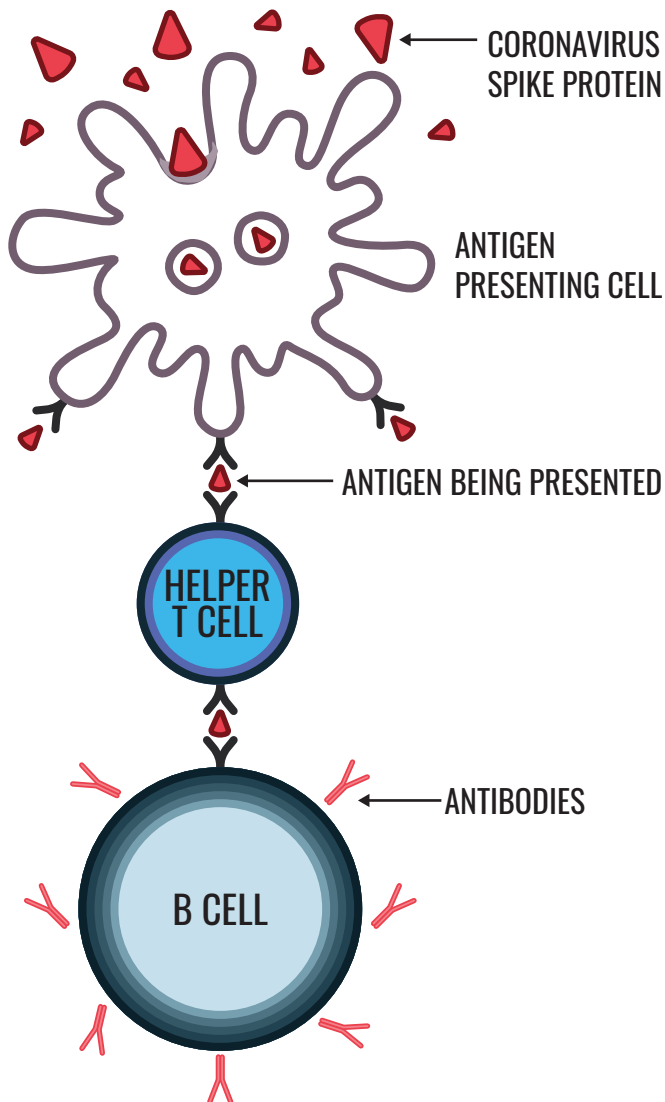
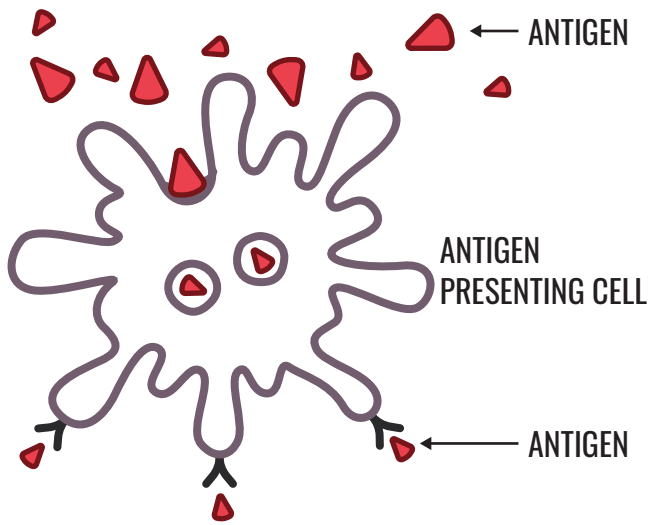
ANTIBODIES

Antibodies are sticky, Y-shaped proteins. Each antibody is custom-made to recognize and stick to a specific antigen – the way a key fits a lock.



ANTIGEN-PRESENTING CELLS (APC)

These immune cells patrol our bloodstream, looking for antigens. When they find antigens, they sweep them up and chop them into pieces. Then, APCs display these pieces for other immune system cells to see.



T CELLS

T cells are another part of our immune system. Each T cell recognizes a specific antigen. When an APC shows your T cells this antigen, they come to life – which is called activation.

There are different kinds of T cells – helper T cells, killer T cells, and memory T cells. When they are activated, **helper T cells**, coordinate the immune system, telling other cells what to do. They tell other immune system cells, called B cells, to make antibodies to a specific antigen. Activated **killer T cells** destroy infected cells. **Memory T cells** remember a specific antigen – for many years – and will rapidly respond when it re-enters our bodies.

DO ANTIBODIES ALWAYS PROTECT PEOPLE?

Antibodies remain in our bodies for years. They protect people against many viruses, but sometimes they cannot totally defeat them, such as with HIV. Also, viruses can change so much that antibodies do not recognize them, so they cannot fight them.

HOW LONG DO ANTIBODIES LAST?

It depends on the person and the illness. Some people produce weak antibodies- or very few of them. This happens for different reasons: the immune system gets weaker as we age; HIV and other conditions may also weaken it, as do certain medicines used to suppress the immune system.

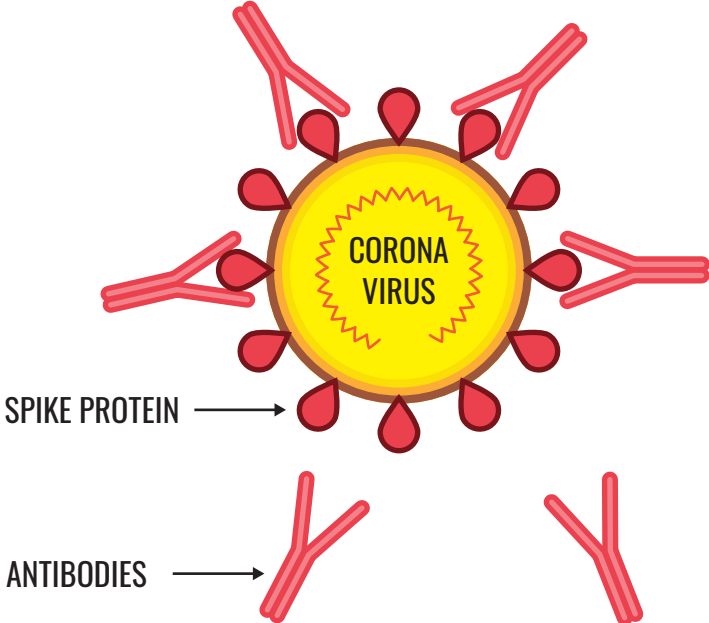
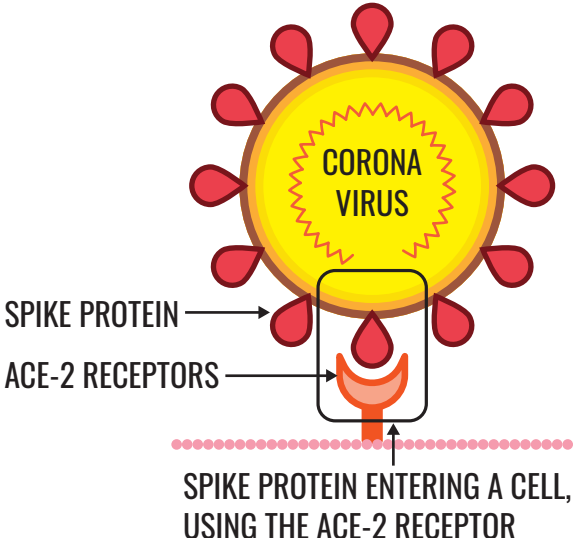
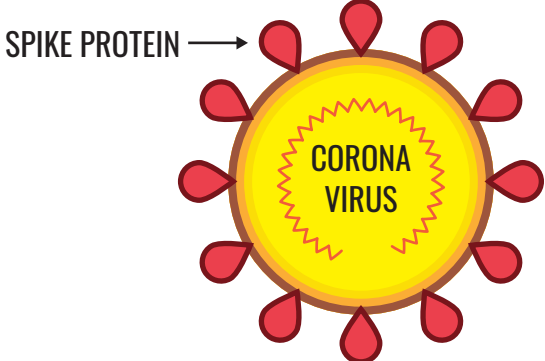
Antibodies to some illnesses, such as measles, can last for decades, while others only last for a few months. Since COVID-19 is new, researchers are still learning about how long antibodies last. We are also still learning about how long the new vaccines will protect people from COVID-19.

SPIKE PROTEIN: THE TARGET OF COVID-19 VACCINES

All vaccines need a good target. The target should be a stable part of the virus that doesn't change too much or too often. All of the COVID-19 vaccines are aimed at the same target: the spike protein – which sticks out from the coronavirus.

The coronavirus uses its spike protein to enter our cells. The spike protein fits into h proteins on the outside of cells found all over our bodies, called ACE-2 receptors. The spike protein fits into the ACE-2 receptor as a key fits a lock.

COVID-19 vaccines teach our immune systems to recognize and respond to the spike protein, and to make antibodies to stop the spike protein from entering our cells and making us ill.

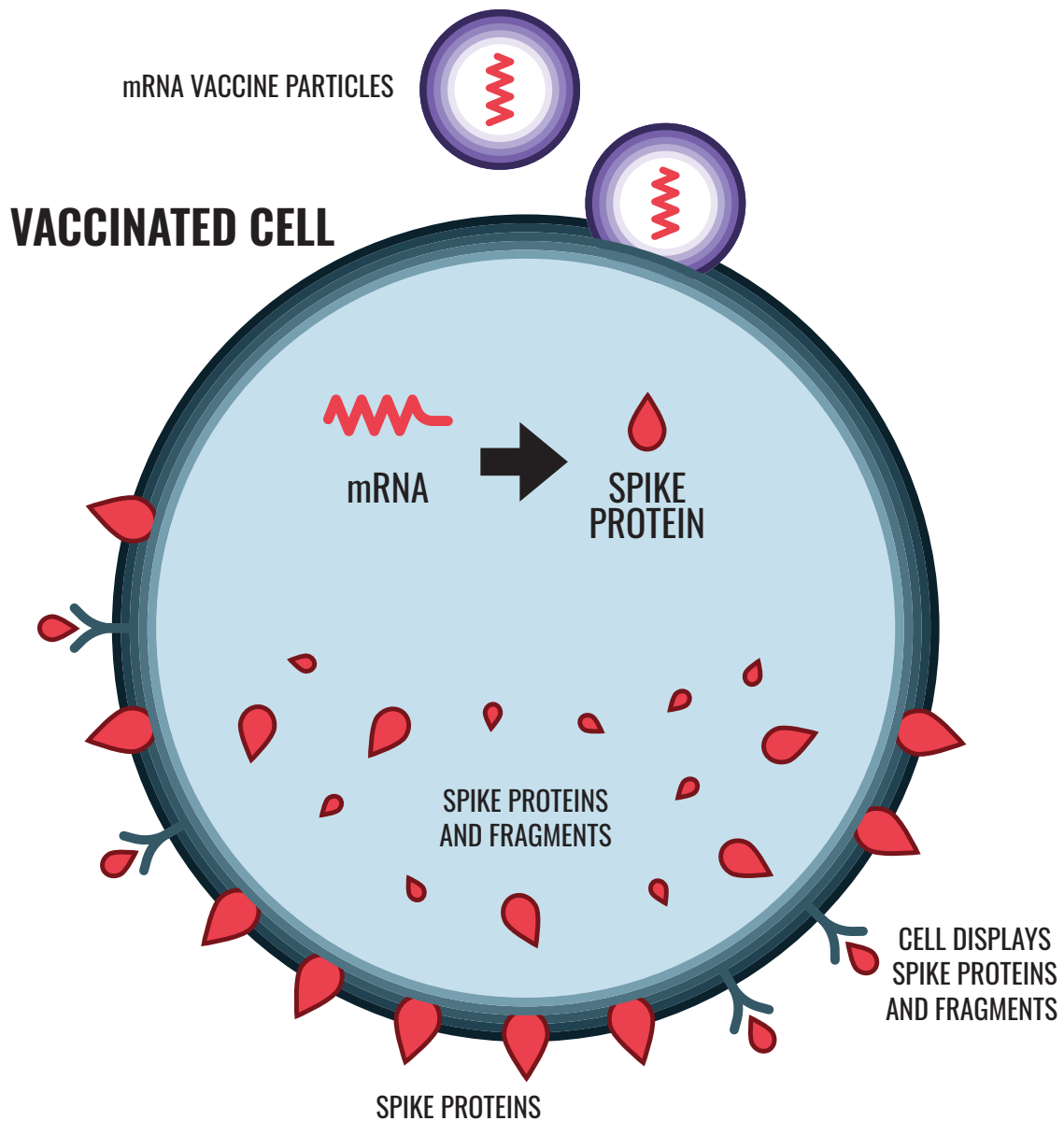


WHAT APPROACHES DO COVID-19 VACCINES USE?

COVID-19 vaccines can protect us from falling ill with COVID-19. They use different approaches to trigger our immune system by:

- Delivering instructions for making spike proteins directly to your cells; called the genetic approach (because there is no virus in these mRNA vaccines, they cannot make you ill with COVID-19) - made by CureVac, Moderna and Pfizer/BioNTech.
- Using an inactive virus (called a vector), that cannot make you ill, as an envelope to deliver part of the coronavirus to the immune system; called viral vector vaccines -made by AstraZeneca, Johnson and Johnson (J & J) and Gamaleya
- Using a coronavirus that has been treated with heat, radiation or chemicals, so it cannot make you ill –called inactivated vaccines – made by Bharat Biotech, Sinopharm and Sinovac
- Using only the parts of the coronavirus that the immune system needs to recognize, so the vaccine cannot make you ill; called a subunit vaccine (vaccines using this approach are in development but not approved yet).

THE GENETIC APPROACH: mRNA VACCINES FROM CUREVAC, MODERNA AND PFIZER/BIONTECH



mRNA technology has been studied for years – COVID-19 vaccines are the first to use it. Vaccines using this approach deliver spike protein-making instructions directly to our cells.

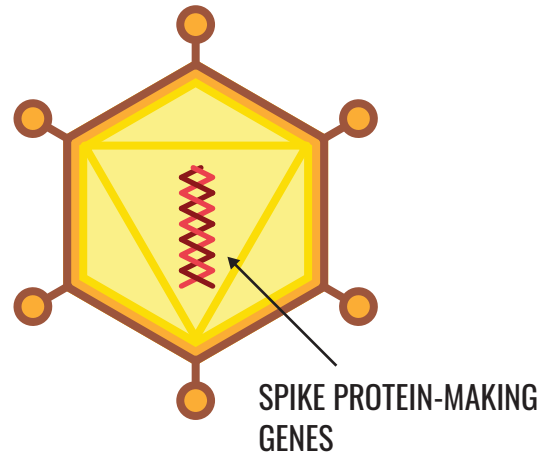
Some of these spikes poke their tips outside of the cell, where the immune system can see and respond to them. Other spikes get cut up inside of the cell. Their tips drift to the outside of the cell, where the immune system sees them and responds.

THE VIRAL VECTOR APPROACH: VACCINES FROM ASTRA ZENECA, J & J AND GAMALEYA (SPUTNIK V)

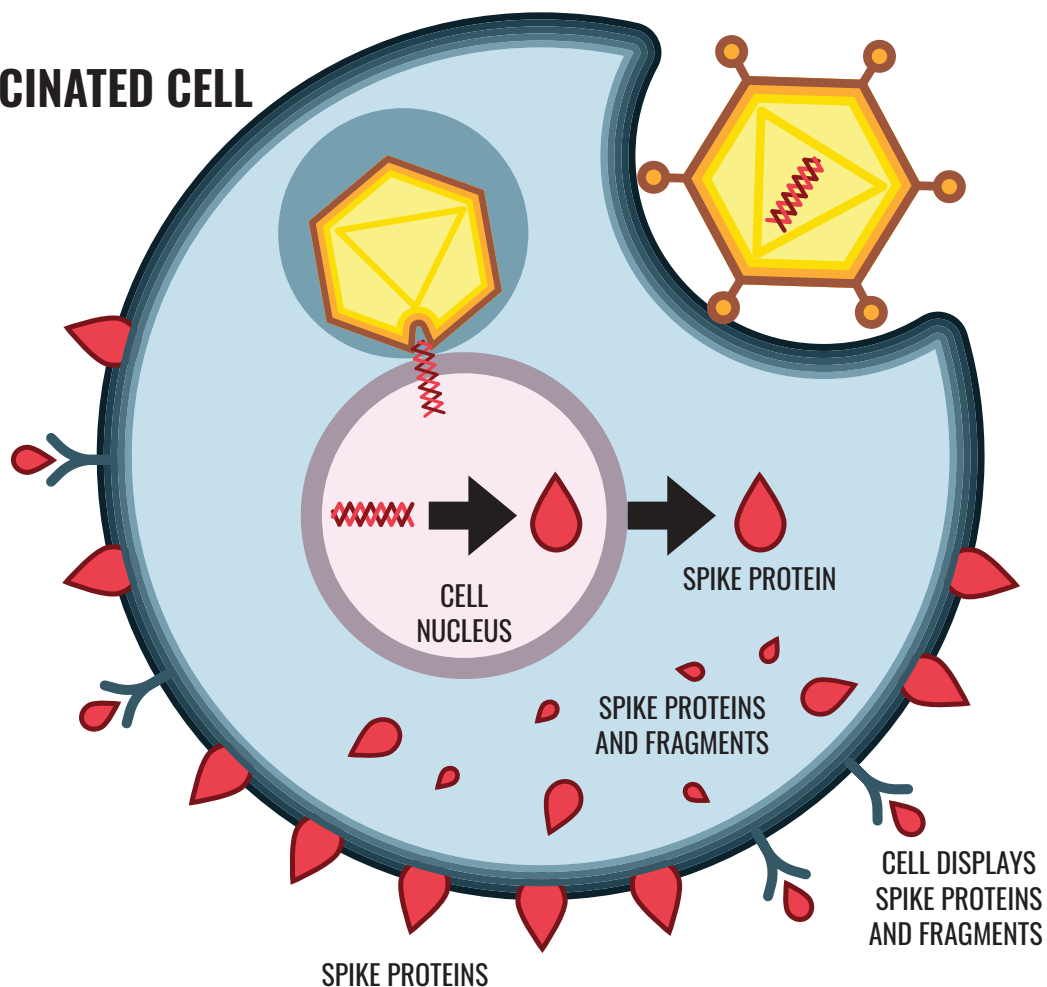
These vaccines are based on decades of research. They use harmless versions of adenoviruses (which causes colds). The adenovirus works like an envelope that delivers spike protein-making genes into our cells.

Our cells pull in the adenoviruses, which deliver the spike protein-making genes into the cell's control center, called the nucleus. When the spike proteins drift outside of cells, they trigger an immune response.

ADENOVIRUS WITH SPIKE PROTEIN-MAKING GENES

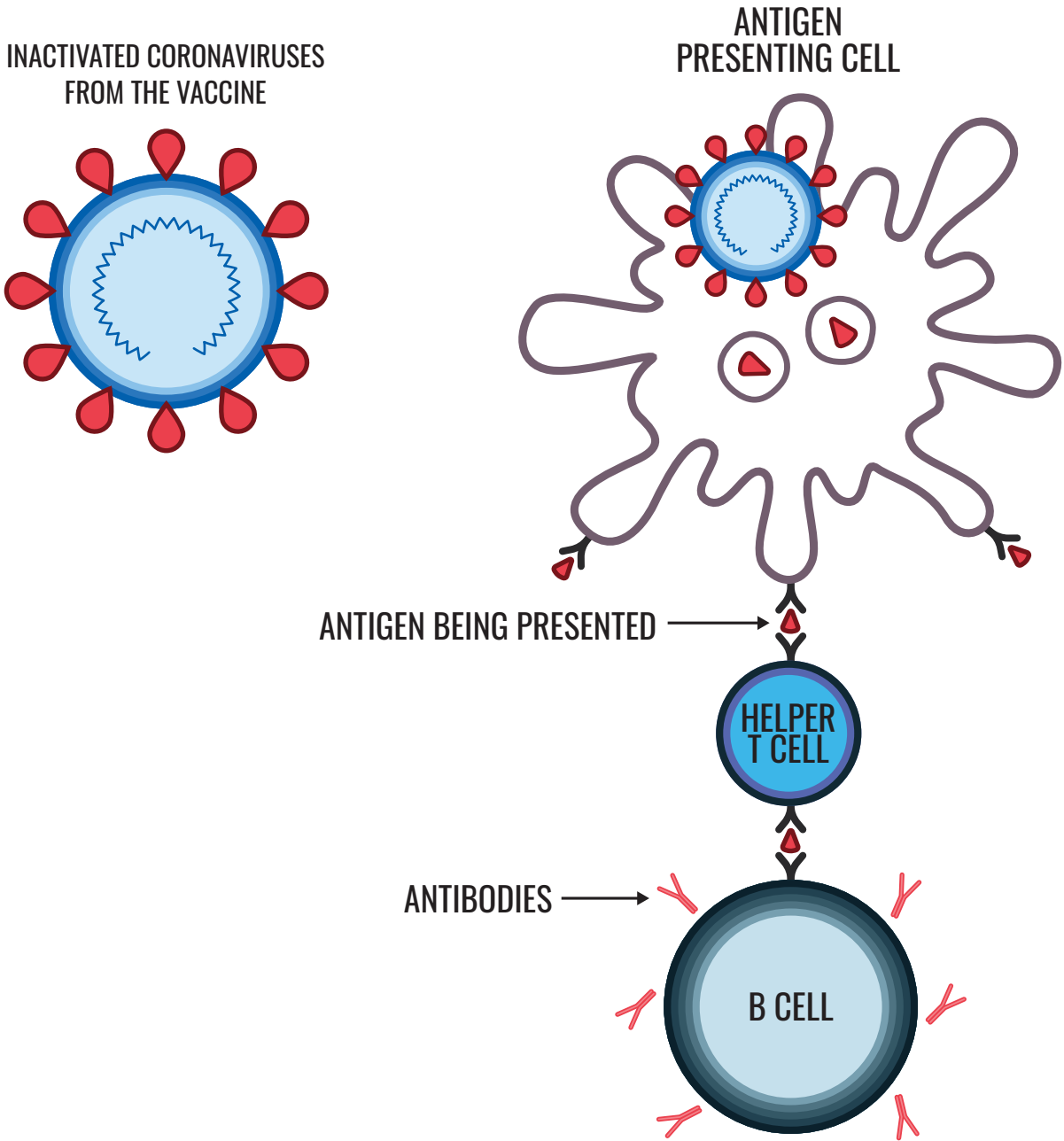


VACCINATED CELL



THE INACTIVATED APPROACH: VACCINES FROM BHARAT BIOTECH, SINOPHARM AND SINOVAC

These vaccines use technology that is more than 100 years old. They use harmless versions of the coronavirus that have been treated with heat, radiation or chemicals so they cannot make us ill, sometimes mixed with an immune system stimulator (called an adjuvant). When this vaccine enters a person’s body, our immune system’s antigen-presenting cells swallow it, chew it up, and spit out pieces of the harmless coronavirus, triggering immune responses.



PLANNING TO GET A COVID-19 VACCINE

It is safe to get the vaccine whether or not you have already had COVID-19. Getting vaccinated is recommended for people who have already recovered from COVID-19, because we do not know how long protection lasts.

People with chronic medical conditions or cancer can be vaccinated. But if you are feeling ill, wait until you have recovered before getting the vaccine. Do not get vaccinated if you have a fever of more than 38.5°C.

Vaccines are safe and effective for women who are pregnant, breastfeeding or menstruating (See COVID-19 Vaccines During Pregnancy and Breastfeeding).

When you go to get your vaccine, do not wear anything that is tight on your arms.

With the two-shot vaccines, the side effects may be worse after your first shot or your second shot, but it is important to get both. If you only get one shot, you will not be fully protected.

After you get your vaccine, drink lots of fluids, rest and take paracetamol if you need it. If your arm hurts after getting your shot, put a cool, wet washcloth on it. If possible, arrange to take a day or two off from work.

VACCINE SIDE EFFECTS

SIDE EFFECTS

Vaccines have side effects, which are caused when the immune system reacts to the vaccine. This confuses people, who think that the vaccine has made them sick. But having these side effects really means that the vaccine is working (although vaccines also work for people who don't have side effects). These side effects can include:

- Fever
- Pain or swelling near the injection site
- Chills
- Aching muscles and joints
- Feeling tired
- Nausea/vomiting

Usually, side effects are mild, but you may feel tired or ill for a day or two after getting vaccinated.

SEVERE SIDE EFFECTS

Severe side effects are much less common, and more serious.

Some people have a severe allergic reaction to vaccines, but this is very rare and can be treated. It is important to let health care workers know if you have ever had a severe allergic reaction, or if you have allergy symptoms after getting a vaccine.

Some COVID-19 vaccines (AstraZeneca and J & J) can cause a very rare combination of **blood clots with low platelets**, which can be life-threatening – but it can be treated. So far, this very rare combination of blood clots with low platelets has developed mostly in women under age 50. Regulators agree that the benefits of COVID-19 vaccines outweigh the risk of very rare blood clots with low platelets.

People who have any of the following symptoms after getting the AstraZeneca or J & J vaccine need medical attention right away:

- Shortness of breath
- Chest pain
- Persistent abdominal pain
- Swollen legs
- Severe or persistent headache
- Blurred vision
- Persistent bleeding
- Skin bruising
- Small round spots that appear a few days after getting the vaccine.

A small group of people in Hong Kong and Thailand developed temporary facial paralysis (called Bell's Palsy) after getting the Sinovac COVID-19 vaccine (there have also been a small number of cases among people who got the Pfizer/BioNTech vaccine). In addition, six healthcare workers in Thailand developed stroke-like symptoms – drowsiness, numbness and tingling – after getting the Sinovac vaccine. All have since recovered. Thailand's NHSO has approved financial assistance to everyone who suffers adverse side effects from these government-procured vaccines, with similar criteria to those in Section 41 of the National Health Act B.E. 2545³

3 Hfocus, สปสช. ย้ำ! เขียวยาแพ้วัคซีนโควิด ไม่พิสูจน์ถูกผิดว่าเกิดจากวัคซีนหรือไม่ ช่วยบรรเทาผลกระทบ <https://www.hfocus.org/content/2021/06/21812> (accessed on 14 June 2021).

The J & J vaccine may increase the risk for Guillain-Barré syndrome - when the immune system attacks nerve cells. Other vaccines can cause Guillain-Barré syndrome - as can COVID-19 - but it is very rare. The first symptoms are weakness, tingling or numbness in the arms and legs, double vision, and difficulty with walking, speaking, chewing, swallowing or controlling your bladder or bowels. These symptoms can worsen into widespread muscle weakness and paralysis. They may pass within weeks, but people with more serious cases may need hospitalization.

Guillain-Barré is usually treated with an infusion of antibodies or removing and replacing a person's blood plasma. In rare cases, Guillain-Barré syndrome can cause permanent nerve damage or be fatal.

Although rare, severe allergic reactions to the Pfizer or Moderna vaccines have happened, usually within 15-30 minutes of getting the shot. It is important to let health care workers know if you have ever had a severe allergic reaction, or if you have allergy symptoms after getting vaccinated. These reactions can be treated.

The Pfizer and Moderna vaccines may be linked to inflammation of the heart muscle (called myocarditis), or the tissue around the heart (called pericarditis), usually in young men ages 16 to 30, within five days of getting their second shot. Symptoms are chest pain, shortness of breath and heart palpitations. Myocarditis and pericarditis are usually mild and can be treated.

ABOUT COVID-19 VACCINES FOR PEOPLE LIVING WITH HIV

It is safe – and important- for people living with HIV to keep taking antiretrovirals (ARVs) when they get vaccinated. ARVs do not interact with these vaccines; they help to keep the immune system strong so vaccines can do their job.

COVID-19 vaccines from AstraZeneca/Oxford, J & J, Moderna and Pfizer/BioNTech have been studied in people living with HIV. In these trials, vaccines were less effective for people living with HIV. Larger trials are needed to determine how much less effective they are – and, if necessary, what can be done about it.

People living with advanced HIV, those with low CD4 cells and people who are not on ARVs may need a third vaccine dose to increase their immune responses.

Vaccine	# of people living with HIV in trial	Results	Comments
Moderna	176	No safety issues or difference in side effects by HIV status	Larger studies needed in people living with HIV
Pfizer	120	No safety issues or difference in side effects by HIV status	
AstraZeneca	157; all had stable HIV and were on ART	No safety issues, differences in side effects or immune responses by HIV status (in people with CD4 cell counts of at least 500 cells/mm ³)	
J & J	1,128; all had stable HIV and were on ART	No safety issues or difference in side effects by HIV status	
Sputnik V	Trials in people living with HIV are planned during the second half of 2021		
Bharat Biotech	No data available		
Sinopharm	No data available		
SinoVac	No data available		

COVID-19 VACCINES DURING PREGNANCY AND BREASTFEEDING

Although clinical trials of COVID-19 vaccines in people who are pregnant are not completed yet, they have not seen any safety issues. Experts are already recommending COVID-19 vaccines for people who are pregnant or nursing, since there is no evidence that these vaccines are unsafe for people who are nursing or for their babies.

People who are pregnant are more likely to fall seriously ill from COVID than people who are not pregnant. Getting a COVID-19 vaccine during pregnancy can protect you and may also protect your unborn baby from COVID-19.

COVID-19 vaccines do not have any effect on fertility or pregnancy.

COVID-19 VACCINES FOR CHILDREN AND ADOLESCENTS

Trials in children and adolescents under age 18 are ongoing; as of June 2021, vaccines from Sinopharm and Sinovac have been approved in China for children ages three and over, and the Pfizer/BioNTech vaccine has been approved in the EU and the US for children ages 12 and up. The EU has approved the Moderna vaccine for ages 12 and up.

ARE COVID-19 VACCINES HALAL?

Sharia scholars say that since vaccination helps to protect other people, it is a fard kifaya - a collective obligation.

There are no animal products in the AstraZeneca/Oxford and Johnson and Johnson vaccines. Sinovac has not said what is in their vaccines but the Indonesian Ulema Council has said that that they are "holy and halal."

HAVE ASIAN PEOPLE BEEN INCLUDED IN PHASE III COVID-19 VACCINE TRIALS?

Asian people have been under-represented in clinical trials of COVID-19 vaccines from AstraZeneca/Oxford, J & J, Moderna and Pfizer/BioNTech.

Vaccine	Countries	N	% Asian
Moderna	US	30,351	Overall: 4.6%
Pfizer	Argentina, Brazil, Chile, Colombia, Mexico, Peru, South Africa, US	37,606	Overall: 4.3%
AstraZeneca/Oxford	Brazil, UK	11,636	Brazil: 2.6% UK: 4-5%
J & J	Brazil, US, South Africa	44,325	Overall 3.5%
Sinopharm	No data available		
Sinovac	No data available		

IS THAILAND DEVELOPING ITS OWN COVID-19 VACCINES?

Thailand's Government Pharmaceutical Organization (GPO) is conducting a phase I clinical trial of an inactivated COVID-19 vaccine, in cooperation with Mahidol University's Tropical Medicine Department and with support from the US-based Program for Appropriate Technology in Health (PATH).

Chulalongkorn University is also developing a COVID-19 vaccine based on mRNA technology and has started its human trials on June 14th, 2021.

WHAT IS COVID-19?

COVID-19 is an illness that is caused by a new coronavirus, called SARS-CoV-2. There are many coronaviruses; they can also cause colds or more serious illnesses (SARS and MERS).

IS COVID-19 MAN-MADE?

Other viruses, including coronaviruses (SARS and MERS), have jumped from animals to people. Researchers are not sure which animal SARS-CoV-2 came from, but they have found a virus in bats that is over 96% similar to the human form, and they think this may be the most likely origin of the virus.

HOW IS COVID-19 TRANSMITTED?

The coronavirus is passed in tiny particles that are too small to see. These tiny particles enter the air when a person who has COVID-19 exhales, talks, sings, sneezes or coughs. When another person inhales these particles or if they land in a person's eyes, nose or mouth, they can become infected.

It is possible - but much, much less likely - that a person could become ill with COVID-19 if they touch their eyes, nose or mouth after touching something that has tiny particles of the virus on it.

HOW CAN COVID-19 BE PREVENTED?

Many people who have COVID-19 do not have any symptoms – but they can still transmit the virus. For this reason, it is important to assume that anyone could have it, not just people with symptoms.

It is not always possible for people to follow measures to prevent COVID-19, but people can protect themselves and others by:

KEEPING AT LEAST 1 METER AWAY FROM OTHER PEOPLE, which is called ‘physical distancing’

WEARING A MASK THAT COVERS YOUR NOSE AND MOUTH – in some places where variants are spreading, double masking is recommended, using a cloth mask over a surgical mask, or an N95 or FF2 mask (if available)

AVOIDING CROWDS – especially when indoors

KEEPING WINDOWS OPEN when you are inside to get fresh air flowing

LIMITING THE NUMBER OF PEOPLE THAT YOU SPEND TIME WITH, and doing it outdoors

FREQUENTLY WASHING YOUR HANDS for at least 20 seconds at a time, using soap and water or hand sanitizer that is at least 70% alcohol

AVOIDING UNNECESSARY VISITS TO CLINICS OR HOSPITALS

GETTING TESTED IF YOU HAVE A FEVER, FEEL ILL OR HAVE BEEN AROUND SOMEONE WITH COVID-19

CALLING OR GOING TO YOUR HOSPITAL OR CLINIC IF YOU HAVE TROUBLE BREATHING

IF YOU HAVE COVID-19, STAYING HOME AND AWAY FROM OTHER PEOPLE UNTIL YOU RECOVER

GETTING VACCINATED ONCE IT IS POSSIBLE

For prevention, sunlight, wind and the outdoors are your friends. For example, there is still some risk to eating at a restaurant, but it is much safer to eat at an outdoor table than one inside, where airflow is not as good.

TESTING FOR COVID-19

There are different COVID-19 tests – those that detect the virus or its proteins or those that detect antibodies.

An antibody test, done with a sample of blood, will tell you if you have had COVID-19 in the past.

A test that detects the virus will tell you if you have COVID-19 now. There are two different types of tests being used for detecting SARS-CoV-2 – antigen tests and viral load tests. Both types of tests use samples collected with a swab that goes into a person's nose or throat.

Antigen tests look for a protein that is part of the coronavirus. Results can be ready in less than 30 minutes, and antigen testing does not require special equipment or extensive training. Antigen tests are best for people who are at the peak of their coronavirus infection, when their viral load is highest. But during early infection, when viral load is lower, an antigen test may not be able to find it.

Antigen tests can give false negative results up to 20% of the time. Also, antigen tests may give a false positive result, which could happen because someone has another virus or if the sample was not collected properly– but this is less likely than a false negative result. Someone with Covid-19 symptoms who gets a negative antigen test should also get tested with a viral load test to confirm that they do not have COVID-19.

Viral load tests look for the actual genetic material of the coronavirus. Their results can be ready within hours, but most labs are very busy, which delays results for days to weeks. Viral load testing can find coronavirus in samples from people with very low viral loads– even people who have no symptoms. These tests may also find fragments of the virus in people who have recovered and are no longer contagious.

COVID-19 TESTING IN THAILAND

In Thailand, COVID-19 testing is free for those who are eligible:^{4, 5}

- People who have a high fever (37.5 C), runny nose, are coughing and/or gasping for breath
- People who are in a risk group; in contact with someone who has COVID-19 and/or having been in crowded areas/communities (e.g. malls, markets, clubs/bars, healthcare facilities, or public transport)
- People who have lived or travelled to/from countries with reported COVID-19 cases within one month
- People who have pneumonitis conditions
- Healthcare workers with suspected COVID-19 and people who work at quarantine fields/stations.

4 Ministry of Public Health (MoPH), 'เกณฑ์การตรวจโควิด - 19 ฟรี' [infographic], <https://www.moph.go.th/index.php/news/read/1707> (accessed on 29 June 2021)

5 Hfocus, เปิดข้อมูลกลุ่มเสี่ยงไหน ตรวจโควิด19 ฟรี! ได้ทั้ง รพ.รัฐและเอกชนทุกแห่ง [website], <https://www.hfocus.org/content/2021/04/21366> (accessed on 29 June 2021).

WHAT HAPPENS TO PEOPLE WHO HAVE COVID-19?

COVID-19 is unpredictable. It can affect every system in our body – and is different for each person.

Nearly half of all people with COVID-19 don't have any symptoms. Many people have a mild illness that they recover from completely.

For people who have symptoms, they begin 2 to 14 days after getting COVID-19; they include:

- Fever
- Chills
- Dry cough
- Shortness of breath or difficulty breathing
- Appetite loss
- Fatigue
- Muscle or body aches
- Headache
- Being unable to taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea
- Conjunctivitis (red itchy eyes that may be crusty when you wake up)
- Skin rash
- Red or purplish fingers or toes

Some people remain ill for months, with “long COVID” and/or have permanent lung, heart, kidney or brain damage and loss of smell and taste. Because COVID-19 is a new illness, researchers are still learning about it and working to figure out who is most likely to have long-term illness, what causes it, and how to treat people who have long COVID.

COVID-19 can also cause severe illness and death. The risk for serious illness is higher for people over age 65 years and/or people with other conditions, including diabetes, high blood pressure, tuberculosis, obesity, and a weak immune system. People living with HIV are not more likely to get COVID-19 than anyone else, but they are more likely to fall seriously ill from it, especially if they have a low CD4 cell count and/or are not taking HIV treatment.

IS THERE TREATMENT FOR COVID-19?

Most people will recover by themselves. Fever can be treated with paracetamol. People who are taking medicine for asthma, hypertension, diabetes, HIV or other conditions should not stop taking it while they are ill with COVID-19.

Depending on the country you are in, different treatments are being used for people with COVID-19, including oxygen and proning (turning people on their stomach to help them breathe). Thailand’s treatment guidelines are available here:



https://covid19.dms.go.th/backend/Content/Content_File/Covid_Health/Attach/25640625085440AM_CPG_COVID_v.15_n%2020210625.pdf

6 Department of Medical Services, ‘แนวทางการปฏิบัติ การวินิจฉัย ดูแลรักษา และป้องกันการติดเชื้อในโรงพยาบาล กรณีโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ฉบับปรับปรุง วันที่ 25 มิถุนายน พ.ศ. 2564 สำหรับแพทย์และบุคลากรสาธารณสุข’, 2021, https://covid19.dms.go.th/backend/Content/Content_File/Covid_Health/Attach/25640625085440AM_CPG_COVID_v.15_n%2020210625.pdf. (accessed 29 June 2021).



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