FREQUENTLY ASKED QUESTIONS ABOUT COVID-19 VACCINES
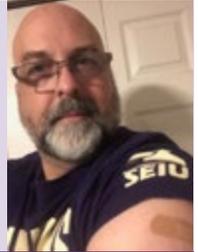
> **"** Coronavirus isn't going away unless we slam the door in its face. I chose to get vaccinated not just for myself, but for my family, friends and co-workers. If I don't get sick, I won't get you sick. Get vaccinated when the opportunity comes along and let's send COVID-19 packing. It's just the right thing to do.
>
> **—Cliff Pfenning**
> **KAISER PERMANENTE, SEIU 49 VP HEALTHCARE**

SAFETY & EFFECTIVENESS

What's in the vaccine? How does it work?

There are two vaccines that are or could soon be available, and both use messenger RNA (mRNA) technology. Unlike other vaccines, mRNA technology does not use any live virus particles. You will not be exposed to the virus that causes COVID-19.

Instead, the vaccines contain instructions for your cells. The messenger RNA -- a piece of genetic code -- tells your cells to make the COVID-19 spike protein themselves. Once your cells make the spike protein, your immune system will create the antibodies that fight COVID-19 and protect you from getting sick from this virus, providing a significant level of immunity.

To be effective, both of the vaccines require you to receive two shots, given a few weeks apart.

Can I get COVID-19 from the vaccine?

No. There are no live virus particles. While you might feel minor, temporary side effects from the injection, it is impossible to contract the virus from the vaccine.

Will the vaccine cause side effects? If so, how long might they last?

Some people who get a COVID-19 vaccine will experience side effects, particularly after a second dose. The side effects of the vaccine appear to be minor and temporary. Participants have reported pain at the injection site, fatigue, and occasional fever, headache, or aching muscles and joints. These side effects fade within 1-2 days.

These side effects are actually common with all vaccines: they are a sign that a vaccine is working and triggering an immune response.

If someone is going to have a bad reaction to a vaccine, it is likely to occur in the first six weeks after vaccination.

Are there any long-term side effects?

COVID-19 vaccines are still being tested for long-term side effects. At this point, no long-term safety issues have been detected. The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) are monitoring closely. As more people get vaccinated, more information will be available in the coming weeks and months. CDC scientists and medical professionals will be continuously reviewing vaccine safety. They will keep providing information to the public and will take action on new safety concerns if needed.

But even though we are still learning about COVID-19 vaccines, here's what we do know for sure: getting sick with COVID-19 is dangerous. We know that COVID-19 can cause long-term health problems, even in mild cases. It is unlikely that we will find any vaccine-related side effects that are riskier than actually having COVID-19.

Has anyone died or become ill after taking the vaccine?

No. There are two vaccines – one is from Pfizer and the other is from Moderna. Nearly 73,000 individuals took part in clinical trials for the two vaccines. There were no deaths, and nobody reported severe illness following the vaccination.

How effective is the vaccine?

Both vaccines have a very high level of effectiveness: Pfizer has a 95 percent rate and Moderna has a 94 percent rate. That means that among people who took the vaccines, there were 94 to 95 percent fewer cases of COVID-19 than among those who did not receive it.

While it's difficult to compare vaccines for different diseases, for context, flu vaccines are only 40-60% effective in any given year. The high level of effectiveness of the COVID-19 vaccine means it has the potential to significantly prevent the spread of the disease.

Is one vaccine better than the other?

No. The two vaccines use the same mRNA technology, and they have similar levels of effectiveness: among people who took the vaccines, there were 94 to 95 percent fewer cases of COVID-19 than among those who did not receive it. To be effective, both of the vaccines require you to receive two shots, given a few weeks apart.

Your employer may administer one of the two authorized vaccines, depending on their supply. Once you receive the first dose, you cannot get a second shot from a different vaccine.

How many doses do I need to be fully protected? Is one good enough?

To be effective, both vaccines require two shots, given a few weeks apart. It is typical for the second dose of vaccine to give a more significant, longer-term boost. Giving a vaccine in two doses is common for many childhood vaccines. The first shot primes the immune system, helping it recognize the virus, and the second shot strengthens the immune response. Pfizer's second shot is given 21 days after the first one; Moderna's is 28 days later.

Can I mix and match vaccines?

No. For a two-dose vaccine, your second dose must be from the same vaccine as the first. Since the vaccines differ in composition, storage and time between the two doses, experts say people must take the same vaccine for both doses.

How long does the protection last? Will I need to get a booster shot every year?

It's possible you may need to get a booster shot. Because the disease is new, we still have more to learn about how long immunity might last. The protection may wane over time, and you may be susceptible again. It's also possible that the virus could mutate. Public health experts and scientists will continue to study the virus and monitor people's immunity, and issue guidance accordingly in the future.

Can I still spread the virus even after getting vaccinated?

We don't yet know whether vaccinated individuals can spread the virus to others who may not have received the vaccine. That's why it will be critical that everyone continues to wear masks, socially distance and follow all the necessary public health protocols both at work and elsewhere.

Can I still get the virus even if I take the vaccine?

Yes. It typically takes a few weeks for the body to build immunity after vaccination. That means it's possible a person could be infected with the virus that causes COVID-19 just before or just after vaccination and get sick. This is because the vaccine has not had enough time to provide protection.

While the vaccine provides significant protection, it is not 100% effective. There is a slight chance you may still get infected, but it will most likely be a mild case of the virus as opposed to a severe case which is possible without the vaccine. Contracting the virus without protection can have potentially deadly consequences – taking the vaccine does not.

Does the vaccine work better depending on age, weight or race?

Based on the available data, we know the Pfizer vaccine works well regardless of age, weight or race. Data on the Moderna vaccine is expected to be released soon and we anticipate it will show similar results. Trials for both vaccines included over 25,000 people from the communities most impacted by COVID-19, including Black, Latinx, and older people.

Will I still need to wear PPE and follow public health protocols after getting the vaccine?

Yes. We will still need to wear masks and practice physical distancing until a large proportion of the population is vaccinated and we are sure the vaccine provides long-term protection. Initially, we will not have enough vials to vaccinate everyone who wants the vaccine and the virus will still be transmitted.

While the vaccine provides significant protection, it is not 100% effective. We also don't know whether vaccinated individuals can still carry and spread the virus to people who haven't been vaccinated. Everyone should continue to wear PPE and follow public health protocols both at work and elsewhere.

I have pre-existing conditions. Will taking the vaccine have harmful effects?

We don't yet know for certain how individuals with different pre-existing conditions will react to the vaccine. It is clear, however, that those with other health complications are at a higher risk for contracting severe cases of the disease. If you have a pre-existing condition, you should consult your doctor on what's best for you.

I already had COVID-19 – do I still need a vaccine?

There is not enough information currently available to say if or for how long after infection someone is protected from getting COVID-19 again. Early evidence suggests that natural immunity from COVID-19 may not last very long, but more studies are needed to better understand this. The CDC has not issued a recommendation on whether people who had COVID-19 should get a COVID-19 vaccine.

The vaccines were made so quickly – how do I know it is safe and not rushed?

The mRNA vaccines produced by Pfizer and Moderna are faster to develop because they are not using live virus particles. Instead, the mRNA is easy to make in the laboratory – saving several years for development.

These vaccines are carefully studied, tested, and regulated before they can be used. The companies that created the vaccines submit extensive applications to multiple government agencies and independent bodies of scientific experts, which will only permit the vaccine to be used if the evidence shows it is safe.

Healthcare workers will be among the first who can take the vaccines. How robust were the trials? How many people were involved and how thorough was the study?

In clinical trials for the vaccine candidates from Pfizer and Moderna, over 73,000 people from the U.S. and around the world received injections of the vaccine. Both vaccines have a very high level of effectiveness.

Did the clinical trials for the vaccines from Pfizer and Moderna include people from the groups most affected by COVID-19, especially Black, Latinx, and older people?

Yes. While vaccines work the same in people of different races or ethnicities, it is important to make sure vaccines are tested in diverse population groups before they are released. The clinical trials conducted by Pfizer and Moderna included over 25,000 people from the communities most impacted by COVID-19, including Black, Latinx, and older people.

Did President Trump pressure vaccine companies or the FDA to speed up the process?

No. Public health leaders including Dr. Anthony Fauci are carefully monitoring the vaccine process, and it has moved forward without interference by President Trump and Republicans. The companies that created the vaccines submit extensive applications to multiple government agencies and independent bodies of scientific experts, which will only permit the vaccine to be used if the data and the evidence show it is safe for people. There is no time limit on the process, and nobody -- not even the President -- can rush it.

DEVELOPMENT & APPROVAL PROCESS

How does the vaccine approval process work?

In the United States, vaccines must be approved by the Food and Drug Administration (FDA) before they can be used. The FDA bases its decision to approve or not approve a vaccine on data from clinical trials. The data is reviewed by independent experts who are not part of the government or the pharmaceutical companies, and by career scientists and physicians at the FDA who are not politically appointed and who are experts in vaccine safety and effectiveness.

The scientists look out for unexpected side effects that the vaccine might have caused. This helps determine the vaccine's "safety." In general, the fewer and less severe the side effects are, the more the vaccine is considered safe. If the clinical trial data shows enough evidence of efficacy and safety, the FDA will approve the vaccine and license it for use in the United States.

I hear that the FDA is granting EUA status to Pfizer COVID-19 vaccine. What does EUA mean?

Sometimes, the FDA will allow a medical product that has not yet been fully approved to be used in an emergency to diagnose, treat, or prevent a serious illness. This is called "emergency use authorization" or "EUA." An Emergency Use Authorization (EUA) may be issued when the FDA determines that the product "may be effective" against the disease based on all the available scientific evidence. This is a lower standard than what's required for full approval of a product, but it still uses early data gathered from clinical trials.

VACCINE DISTRIBUTION

Can I or other healthcare workers be required to take the vaccine?

The vaccines were approved under an FDA protocol called Emergency Use Authorization, which says that vaccines should not be made mandatory. However, healthcare workers are encouraged to take it given their frequent contact with COVID-19 patients, as well as to protect loved ones and neighbors. While healthcare workers will be given the first opportunity to take it due to their work, the general population will be eligible to take it soon after. Mass vaccination is the best way to stop the spread of COVID-19, save lives and begin to resume normalcy once again.

Will those who are vaccinated be assigned to work with patients with COVID-19 more frequently?

No, the immunization status of a healthcare worker will not affect his/her work assignment.

Is the vaccine free? Will my insurance cover it?

You will not have to pay for the vaccine. The vaccine itself is free, and Medicare, Medicaid, and Private Insurance have agreed to offer it for free. Individuals who are uninsured may incur a cost for vaccine administration.

Will I have a chance to take the vaccine later if I decline the first opportunity?

We don't have all the details yet on how many doses will be available in the initial distribution. Due to limited doses of the vaccine, choosing not to take it when it is first available may mean you will have to wait many more months to have an opportunity to do so again.