COVID-19 Vaccines

When will the COVID-19 vaccine be available?
COVID-19 vaccine will be available in December of 2020. Limited amounts of vaccine will be available initially but will increase throughout 2021.

Will I need more than one dose of COVID-19 vaccine?
All but one of the COVID-19 vaccines currently in phase three clinical trials require two doses. It is anticipated the two doses will be separated by >21 or >28 days. The different vaccine products will NOT be interchangeable. The second dose must be completed with the same vaccine brand as the first dose. One COVID-19 vaccine will only require a single dose to provide protection.

How do we know the COVID-19 vaccine is safe and effective?
Safety is the top priority for any vaccine. Early results from the first COVID-19 vaccines tested in people showed it worked as intended with no serious side effects. New vaccines undergo a rigorous review of laboratory and clinical data to ensure the safety and effectiveness of these products. These vaccines may also be required to undergo additional studies to further evaluate the vaccine and often to address specific questions about the vaccine's safety, effectiveness, or possible side effects (FDA). The U.S. vaccine safety system ensures all vaccines are as safe as possible. Safety is a top priority while federal partners work to make COVID-19 vaccines available (CDC).

How will the safety of the COVID-19 vaccine be monitored?
Safety is the top priority for any vaccine. Early results from the first COVID-19 vaccines tested in people showed it worked as intended with no serious side effects. New vaccines undergo a rigorous review of laboratory and clinical data to ensure the safety and effectiveness of these products. These vaccines may also be required to undergo additional studies to further evaluate the vaccine and often to address specific questions about the vaccine's safety, effectiveness, or possible side effects (FDA). The
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COVID-19 vaccine safety will continue to be monitored after it is made available to the public. The Vaccine Adverse Events Reporting System (VAERS) will be used to identify signals that might indicate a safety issue. The Vaccine Safety Datalink (VSD) will also be used. VSD is an active surveillance system that monitors electronic health data for adverse events in various healthcare settings. A new, additional safety monitoring program, V-safe, is also planned to monitor COVID-19 vaccines using smartphones. Additional information about safety monitoring is available on CDC’s COVID-19 vaccine website.

Will the COVID-19 vaccine be prioritized to certain groups?  
Due to initial limited supplies of the vaccine, doses may be limited to certain priority groups such as health care workers, residents of long term care and assisted living, and those who work in industries where social distancing is difficult. As more vaccines become available, these groups will broaden so more people are eligible to receive the vaccine.

Is COVID-19 vaccine being studied in children and pregnant women?  
Recently, one manufacturer has begun to include children in COVID-19 vaccine clinical trials. Studies will need to be conducted in children and in pregnant women before the vaccine is recommended for these populations, but these studies are often done after the vaccine has been shown to work and be safe in healthy adults. It is likely when COVID-19 vaccine is first available that it will not be recommended for pregnant women or children.

What is an Emergency Use Authorization?  
During a public health emergency, the FDA can use its Emergency Use Authorization (EUA) authority to allow the use of unapproved medical products, or unapproved uses of approved medical products, to diagnose, treat, or prevent serious or life-threatening diseases when certain criteria are met, including that there are no adequate, approved, and available alternatives. It is likely COVID-19 vaccine will be made available using an EUA. The FDA has established strict safety and efficacy criteria in order for a vaccine to be approved through EUA. Criteria includes two months post vaccination data, minimum clinical trial size, at least a 50% effectiveness and a certain number of severe COVID-19 cases in participants. COVID-19 vaccines will also be reviewed by external, independent experts. Additional information about EUA is available on FDA’s website.

Will enough COVID-19 vaccine be available for everyone who wants it?  
Limited vaccines may be available this fall, but the COVID-19 vaccine supply is expected to increase substantially in 2021 and eventually be available for everyone who wants to receive it.
If I already had COVID-19 do I still need to get the 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; this is called natural immunity. Early evidence suggests natural immunity from COVID-19 may not last very long, but more studies are needed to better understand this. Until we have a vaccine available and know more about natural immunity to COVID-19, CDC cannot comment on whether people who had COVID-19 should get a COVID-19 vaccine. Once a vaccine has been authorized or approved, ACIP will make recommendations to CDC on who should get a COVID-19 vaccine. A previous infection with COVID-19 infection, whether symptomatic or asymptomatic, is not considered a contraindication to vaccination and serologic testing for SARS-CoV-1 antibodies is not recommended prior to vaccination.

How long will immunity from the COVID-19 vaccine last?
It is not yet known how long immunity from COVID-19 infection lasts. The duration of immunity from COVID-19 vaccines are currently being evaluated. Data from clinical trials will be used to determine how long immunity will last and if it will be necessary for people to receive a booster dose of vaccine each year. Additional information will be forthcoming as vaccine studies continue.

Will the vaccine give me COVID-19 or make me sick?
Vaccines contain the same germs that cause disease. They have been either killed or weakened to the point that they cannot make you sick. A vaccine stimulates your immune system to produce antibodies, exactly like it would if you were exposed to the disease. After getting vaccinated, you develop immunity to the disease, without having to get the disease first.

What are the side effects of the vaccine?
Any vaccine or medication can cause side effects. For the most part these are minor (for example, a sore arm or low-grade fever) and go away within a few days. Safety is the top priority of any vaccine. Common side effects from vaccination include pain, swelling or redness where the shot was given, a mild fever, chills, fatigue, headache, and muscle and joint aches. These side effects were also noted in COVID-19 vaccine clinical trials. Early results from the first COVID-19 vaccines tested in people showed it worked as intended with no serious side effects.

Will the mRNA COVID-19 vaccines alter my DNA?
No. While the mRNA vaccines are the first of their kind, they cannot alter DNA. The mRNA vaccines work by introducing a messenger RNA molecule into your body, which causes cells to produce a protein that resembles one of the viral proteins that make up SARS-CoV-2. Your immune system recognizes the viral protein and generates an immune response against it.

The mRNA vaccines are unable to change your genetic makeup because the mRNA injected into the tissue to stimulate an immune response does not integrate into the cell nucleus of its recipients, thus genetic modification is not possible. Injecting RNA does not alter the DNA sequence of a human body. It only presents the body with the instructions to build a protein, which builds immunity.
When the cells divide, they will only include your natural DNA. Further, the time RNA survives in the cells is relatively brief, usually only a span of hours.

**Is the COVID-19 vaccine made with fetal cells?**
The mRNA COVID-19 vaccines produced by Pfizer and Moderna do not require the use of any fetal cell cultures in order to manufacture the vaccine. The following organizations assert the mRNA COVID-19 vaccines are ethically uncontroversial: National Catholic Bioethics Center, Pontifical Academy of Life Statement, Charlotte Lozier Institute, Immunization Action Coalition.

**Will COVID-19 vaccine cause someone to test positive on COVID-19 viral tests?**
Vaccines currently in clinical trials in the United States will not 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, which is 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 may have some level of protection against the virus. Experts are currently working to assess how COVID-19 vaccination may affect antibody testing results.

**What is the COVID-19 Vaccine Record Card?**
This vaccination record card is to provide documentation for the patient to take with them following vaccination.

**Will vaccine recipients be required to show their COVID-19 vaccination record card in order to get their second dose?**
No. However, all vaccine recipients should be encouraged to keep their card and show it at their follow-up vaccination appointment. Retaining the COVID-19 vaccination record card is important to ensure the second dose of vaccine is the same brand/manufacturer as the first dose received.

**Will there be a cost for the vaccine?**
It is anticipated the vaccine will be provided at no cost. In some cases, a provider may charge a small fee to you or your health insurance for the administration of the vaccine.

**If I receive the COVID-19 vaccine will I still need to wear a mask?**
Yes. While experts learn more about the protection that COVID-19 vaccines will provide, it will be important for everyone to continue using all the tools available to help stop this pandemic, such as wearing masks, washing hands often, and social distancing. Experts need to understand more about the protection COVID-19 vaccines provide before deciding to change recommendations on mask use. Other factors, including how many people get vaccinated and how the virus is spreading in communities, will also affect this decision.

Together, COVID-19 vaccination and following CDC’s recommendations for how to protect yourself and others will offer the best protection from COVID-19.
Does immunity after getting COVID-19 last longer than protection from COVID-19 vaccines?
The protection someone gains from having an infection (called natural immunity) varies depending on
the disease, and it varies from person to person. Since this virus is new, it is unknown how long natural
immunity might last. Some early evidence suggests natural immunity may not last very long.

It is also currently unknown how long immunity from the vaccine will last. Additional information about
the duration of immunity will be forthcoming.

What percentage of the population needs to be vaccinated to have herd immunity to COVID-19?
At this time, experts do not know what percentage of people need to be vaccinated to achieve herd
immunity to COVID-19. Herd immunity is a term used to describe when enough people have protection
from either previous infection or vaccination to prevent the spread of the virus or bacteria in the
community. As a result, everyone within the community is protected even if some people don’t have
any protection themselves. The percentage of people who need to have protection in order to achieve
herd immunity varies by disease.

### Influenza COVID-19 Vaccines

What is the difference between influenza (Flu) and COVID-19?
Influenza (Flu) and COVID-19 are both contagious respiratory illnesses, but they are caused by different
viruses. COVID-19 is caused by infection with a new coronavirus (called SARS-CoV-2) and flu is caused
by infection with influenza viruses. Some of the symptoms of flu and COVID-19 are similar, it may be
hard to tell the difference based on symptoms alone. Testing may be needed to help confirm a
diagnosis. Flu and COVID-19 share many characteristics, but there are some key differences between
the two. [This table](#) compares COVID-19 and flu, given the most current information available.

Will there be flu along with COVID-19 in the fall and winter?
It is likely flu viruses and the virus causing COVID-19 will both be circulating this fall and winter. Getting
a flu vaccine will be more important than ever. The CDC recommends all people 6 months and older
receive a yearly flu vaccine.

Will receiving a flu vaccine protect against COVID-19?
Getting a flu vaccine will not protect against COVID-19, however flu vaccination has many other
important benefits. Flu vaccines have been shown to reduce the risk of flu illness, hospitalization and
death. Getting a flu vaccine this fall will be more important than ever, not only to reduce your risk from
flu but also to help conserve potentially scarce health care resources.

If coronavirus disease 2019 (COVID-19) is spreading in my community, should I still go out to get a flu
vaccine?
Yes. Getting a flu vaccine is an essential part of protecting you and your family’s health this season. To protect your health when getting a flu vaccine, follow CDC’s recommendations for running essential errands and doctor visits. Continue to take everyday preventive actions.

**How can I be sure that I will be safe from illness going out to get vaccines if flu and COVID-19 are spreading in my community?**

Healthcare providers are taking extra precautions to protect patients. Some of these measures include things like wearing masks, hand and surface sanitation practices, and physical distancing. It is important for you to take measures to protect yourself and others as well. Continue to take everyday preventive actions.

Keeping your vaccines up to date protects not only you, but others around you. It is our best defense against vaccine preventable diseases.

**Should I go out and get the flu vaccine if I have COVID-19 or am under isolation because I am a close contact to someone that has COVID-19?**

No. Vaccination should be postponed for people with suspected or confirmed COVID-19, regardless of whether you have symptoms, until you have met the criteria to discontinue isolation. While mild illness is not a contraindication to flu vaccination, vaccination should be postponed to avoid exposing healthcare personnel and other patients to the virus that causes COVID-19. When your isolation period is completed, it is important to get your flu vaccine.

Additionally, a prior infection with suspected or confirmed COVID-19 or flu does not protect someone from future flu infections. The best way to prevent seasonal flu is to get vaccinated every year.