Making sure you have the facts about the COVID-19 vaccine is important.
Your choice to get vaccinated can make a positive impact not only for you and your family, but your entire community.

What does the vaccine do?

Both the Pfizer and Moderna vaccines use messenger RNA (mRNA) to encourage your cells to initiate an immune response to SARS-CoV-2, which is the virus that causes COVID-19. Janssen's vaccine uses a vector (carrier) to provide our cells DNA instructions on how to create COVID-19 spike proteins that will initiate an immune response. The vector used in Janssen's vaccine is a harmless adenovirus (like the common cold) that has been modified so it won't be able to replicate or cause illness.

You rely on proteins every day to keep your body healthy. Our bodies use mRNA and DNA to tell our cells which proteins to make, which are antibodies in this case. Vaccines that use mRNA are typically quicker and easier to produce, which has helped accelerate the COVID-19 vaccine process. Janssen's vector technology is established and has been used to create the Ebola vaccine.

The ingredients used in the mRNA vaccines developed by Pfizer and Moderna are simple. They contain mRNA, as well as lipids to ensure safe delivery of the mRNA that will initiate an immune response. Although FDA approved adjuvants (aluminum salts) and preservatives (ethlymercury) have a history of safe use in vaccines, they were not used by Pfizer and Moderna in this vaccine technology.

Safety

How do I know that a COVID-19 vaccine will be safe?

Millions of Americans have received a both doses of the Pfizer and Moderna mRNA vaccines, with the vast majority experiencing minor, temporary side effects. As an additional layer of checks and balances, an external advisory board made up of medical and research professionals using additional public health data have reviewed final COVID-19 vaccine data and recommended the Pfizer, Moderna and Janssen vaccines be made available for emergency use.
America's best medical and research professionals have been working for years on coronavirus vaccines for SARS and MERS. SARS and MERS are different than COVID-19 but belong to the coronavirus family. The lessons learned through those developments are being applied today. Specifically, the effort to develop a COVID-19 vaccine began more than one year ago.

Clinical trials are an important part of determining vaccine safety and efficacy. Pfizer, Moderna and Janssen have completed Phase 3 clinical trials involving tens of thousands of participants. The purpose of clinical trials is to generate scientific data and other information for the Food and Drug Administration to review and base their recommendations on. Vaccine safety monitoring systems are in place to collect side effect data. If an unexpected adverse event is seen, experts quickly study it further to assess whether it is a true safety concern. Experts then decide whether changes are needed in U.S. vaccine recommendations. This monitoring is critical to help ensure that the benefits continue to outweigh the risks for people who receive vaccines.

How did we get a vaccine for COVID-19 so fast?

Although the timeline has been accelerated, it doesn't mean we skipped the integrity of the trial and approval processes. Scientists have had a jump on developing the COVID-19 vaccine, using their experience from previous coronavirus vaccine efforts. Another way scientists preserved safety and saved time was by working on efforts simultaneously, rather than one after another like the traditional process. For example, COVID-19 vaccines were in Phase III clinical trials at the same time they were being manufactured. When it was proven safe and effective, the manufactured vaccines were deployed. If the vaccines don't pass the approval process, which is verified by an independent committee of health experts, the unproven vaccines won't be used.

Can you get this vaccine if you are in quarantine due to an exposure with a positive COVID-19 case?

You should delay your vaccination if you have had a known SARS-CoV-2 (virus that causes COVID-19) exposure until your quarantine period has ended, unless residing in a congregate setting (health care/long-term care facility, correctional facility, homeless shelter, etc.).

Should you have a pregnancy test or antibody test prior to receiving the vaccine?

Routine testing for pregnancy or antibody tests is not recommended in relation to vaccine use.

Can you get the flu shot and COVID-19 vaccine at the same time?

There is no information on co-administration of this COVID-19 vaccine with other vaccines. The COVID-19 vaccines should be spaced at least 14 days from any other vaccine.

Do I have to get the same vaccine for the first and second doses?

Yes, patients must receive the same vaccine for both the first and second doses of Pfizer or Moderna. Your vaccination provider will give you a vaccine card stating the manufacturer name and other critical information you will need for a second dose. While vaccine supply is still very limited, it is also important to return to the same provider/location for your second dose.

Who is not recommended for the Pfizer and Moderna vaccines?

Pfizer's vaccine was approved for those age 16 and older. Moderna and Janssen's vaccines have been approved for those 18 and older.

The Pfizer and Moderna vaccines are not recommended for individuals who have experienced a serious reaction (e.g., anaphylaxis) to a prior dose of a COVID-19 vaccine or to any of its components. Those who have had a severe allergic reaction to any ingredient of the Janssen vaccine should not receive the Janssen vaccine.

What ingredients are used in the COVID-19 vaccines?

The ingredients used in the mRNA vaccines developed by Pfizer and Moderna are simple. They contain mRNA, as well as lipids to ensure safe delivery of the mRNA that will initiate an immune response.

Ingredients of the Janssen COVID-19 vaccine include: recombinant, replication-incompetent adenovirus type 26 expressing the SARS-CoV-2 spike protein, citric acid monohydrate, trisodium citrate dihydrate, ethanol, 2-hydroxypropyl-

β-cyclodextrin (HBCD), polysorbate-80, sodium chloride.

Although FDA approved adjuvants (aluminum salts) and preservatives (ethlymercury) have a history of safe use in vaccines, they were not used by Pfizer, Moderna or Janssen.

What are the possible side effects of a COVID-19 vaccine?

After getting vaccinated, you might have some side effects, which are normal signs that your body is building protection. Common side effects are pain, redness, and swelling in the arm where you received the shot, as well as tiredness, headache, muscle pain, chills, fever, and nausea throughout the rest of the body. These side effects could affect your ability to do daily activities, but they should go away in a few days.
To learn more about what to expect after getting a COVID-19 vaccine please visit the CDC website or find a direct link to this information, and more, at *MOStopsCovid.com/facts.*

Can I get COVID-19 from the vaccine?

No. Every day, a healthy immune system successfully fights off thousands of germs. Antigens are parts of germs that cause the body's immune system to go to work to build antibodies, which fight off diseases. The antigens in vaccines come from the germs themselves, but the germs are weakened or killed so they cannot cause serious illness. Even if people receive several vaccinations in one day, vaccines contain only a tiny fraction of the antigens they encounter every day in their environment. Vaccines stimulate the immune system to produce antibodies to fight off serious vaccine-preventable diseases.

Who was represented in the clinical trials?

Pfizer's clinical trial enrolled 44,000+ participants with 42% globally having racially and ethnically diverse backgrounds. Of Moderna's 30,000 trial participants, 37% were from minority communities, including 6,000 Hispanic and 3,000 Black participants. Janssen's trial included 43,783 participants in the United States, Latin America and South Africa. AstraZeneca's initial trial data included participants from Brazil and the United Kingdom while the company continues to conduct trials in South Africa, Kenya, Latin America, Japan, Russia and the United States.

Should I continue to wear a mask, social distance, maintain good hygiene and avoid large gatherings?
Do I still have to quarantine as a close contact after I receive both doses of the vaccine?

According to the CDC, people are considered fully vaccinated for COVID-19 ≥2 weeks after they have received the second dose in a 2-dose series (Pfizer-BioNTech or Moderna), or ≥2 weeks after they have received a single-dose vaccine (Johnson and Johnson (J&J)/Janssen).†

The following recommendations apply to non-healthcare settings. For related information for healthcare settings, visit the CDC website or find a direct link to this information, and more, at *MOStopsCovid.com/facts*.

Fully vaccinated people can:

- Visit with other fully vaccinated people indoors without wearing masks or physical distancing
- Visit with unvaccinated people from a single household who are at low risk for severe COVID-19 disease indoors without wearing masks or physical distancing
- Refrain from quarantine and testing following a known exposure if asymptomatic
- Resume domestic travel and refrain from testing before or after travel or self-quarantine after travel.
- Refrain from testing before leaving the United States for international travel (unless required by the destination) and refrain from self-quarantine after arriving back in the United States.

For now, fully vaccinated people should continue to:

- Take precautions in public like wearing a well-fitted mask and physical distancing
- Wear masks, practice physical distancing, and adhere to other prevention measures when visiting with unvaccinated people who are at increased risk for severe COVID-19 disease or who have an unvaccinated household member who is at increased risk for severe COVID-19 disease

- Wear masks, maintain physical distance, and practice other prevention measures when visiting with unvaccinated people from multiple households
- Avoid medium- and large-sized in-person gatherings
- Get tested if experiencing COVID-19 symptoms
- Follow guidance issued by individual employers
- Follow CDC and health department travel requirements and recommendations

To ensure you are viewing the latest federal guidance, please visit the CDC website or find a direct link to this information, and more, at *MOStopsCovid.com/facts.* The CDC guidance will be updated and expanded based on the level of community spread of SARS-CoV-2, the proportion of the population that is fully vaccinated, and the rapidly evolving science on COVID-19 vaccines.

Is it safe to get my child vaccinated?

The initial clinical trials did not include children. Pfizer's vaccine has been authorized for emergency use to vaccinate those aged 16 and up. Moderna and Janssen's vaccines have been authorized for emergency use to vaccinate those ages 18 and up.

Is it safe for pregnant women to get vaccinated?

Yes, if you are pregnant, you might choose to be vaccinated. Based on how COVID-19 vaccines work, experts think they are unlikely to pose a specific risk for people who are pregnant. However, there are currently limited data on the safety of COVID-19 vaccines in pregnant people because these vaccines have not been widely studied in pregnant people. Systems are in place to continue to monitor vaccine safety, and so far, they have not identified any specific safety concerns for pregnant people. Clinical trials to evaluate the safety and efficacy of COVID-19 vaccines in pregnant people are underway or planned.

You might want to have a conversation with your healthcare provider to help you decide whether to get vaccinated. While a conversation with your healthcare provider might be helpful, it is not required before to vaccination. To learn more about vaccination considerations for people who are pregnant or breastfeeding visit the CDC website or find a direct link to this information, and more, at *MOStopsCovid.com/facts*.

If you are pregnant and have received a COVID-19 vaccine, we encourage you to enroll in v-safe, available on the CDC's website. It is a smartphone-based tool that provides personalized health check-ins after vaccination. A v-safe pregnancy registry has been established to gather information on the health of pregnant people who have received a COVID-19 vaccine.

How are vaccinators vetted? Do they have to have medical experience?

States are required to verify that the vaccinators have licenses for the states they will be vaccinating in and that they are in good standing. The Bureau of Immunizations within DHSS will verify licenses utilizing professional boards of registration.

Why are medical professionals optimistic about this vaccine?

According to Dr. Anthony Fauci, the overwhelming majority of people who are infected by SARS-CoV-2, the virus that causes COVID-19, recover. That means most patients' immune response that's adequate to suppress the virus and eliminate it from their body. That gives medical professionals confidence that a vaccine could initiate a similar response. We also had a jumpstart on the development of this vaccine. America's best medical and research professionals have been working for years on coronavirus vaccines for SARS and MERS. SARS and MERS are different than SARS-CoV-2 but belong to the coronavirus family. The lessons learned through those developments are being applied today. Specifically, the effort to develop a COVID-19 vaccine began months ago.

Efficacy

Can I take over-the-counter pain relievers before my vaccination appointment?

At this time, the CDC does not recommend taking pain relievers before a COVID-19 vaccination appointment because there is not enough information to determine the impact the medications may have on the immune response. However, they may be used post-vaccination to ease discomfort.

If you have been vaccinated, can you stop from using other precautions?

No. While experts learn more about the protection that COVID-19 vaccines provide under real-life conditions, it will be important for everyone to continue using all the tools available to us to help stop this pandemic, like covering your mouth and nose with a mask, washing hands often, and staying at least 6 feet away from others. Together, COVID-19 vaccination and following CDC's recommendations for how to protect yourself and others will offer the best protection from getting and spreading COVID-19.

Most people recover. Why do I need a vaccine?

COVID-19 is a deadly disease that causes severe illness – and in some cases, long term symptoms that we have yet to fully understand. The COVID-19 vaccine candidates have been created to decrease death and severe illness.

Although a high percentage of people recover from COVID-19, some are hospitalized and experience severe illness. It is also somewhat common to have the virus but never experience symptoms, and it is possible to spread the virus to others even when symptoms are not present. When you make the choice to be vaccinated, you are protecting not only you but also those around you from the chance of death and severe illness caused by COVID-19.

How effective will a COVID-19 vaccine be?

Both the Pfizer and Moderna vaccines have an approximate 95% efficacy rate and are highly effective in preventing severe disease. In December, the CDC published that the Pfizer and Moderna vaccines had a constant efficacy rate across age, sex and ethnicity categories, as well as among individuals with underlying medical conditions and those who have been previously infected by SARS-CoV-2. Additionally, initial clinical data showed protection is achieved 28 days after the initiation of the Pfizer vaccine, which consists of a 2-dose schedule.

According to Moderna's website, initial trial data was used to estimate a vaccine efficacy of 94.5%. Initial data from Moderna also shows the vaccine may provide some protection against asymptomatic SARS-CoV-2 infection.

AstraZeneca estimates a 90% efficacy rate from a specific 2-dose schedule.

Janssen's clinical trials showed an 85% efficacy rate in preventing hospitalization and complete protection against death caused by SARS-CoV-2.

All authorized vaccines are highly effective. The different types of vaccines were not studied in head-to-head comparisons or trials; therefore, they should not be compared to each other.

Does the vaccine prevent against asymptomatic infection?

Initial data from Moderna shows the vaccine may provide some protection against asymptomatic SARS-CoV-2 infection.

How long will immunity last if I get vaccinated?

There is no definitive data on how long immunity will last with a vaccine. A COVID-19 vaccine will trigger an immune system response to develop active immunity. Active immunity results when exposure to a disease organism triggers the immune system to produce antibodies to that disease. If an immune person comes into contact with that disease in the

future, their immune system will recognize it and immediately produce the antibodies needed to fight it. Although we don't know exactly how long immunity will last for the specific vaccines in trial, active immunity can be long-lasting.

How many doses should I expect?
Two of the three COVID-19 vaccines approved for use require two doses. Janssen's vaccine requires one dose.

It is important that patients return for the second dose to develop the highest level of protection from SARS-CoV-2. Patients who do not receive the second Pfizer vaccination dose at 21 days or the Moderna vaccination at 28 days should still receive that second dose as soon as possible thereafter.

Why is a vaccine necessary?
A vaccine is necessary to help you and your community shape a new normal. Stopping a pandemic requires using all the tools available. Vaccines boost your immune system so it will be ready to fight the virus if you are exposed. Other steps, like masks and social distancing, help reduce your chance of being exposed to or spreading the virus.

If I've recovered from COVID-19, do I still need to get vaccinated?
Yes. We are seeing evidence of reinfection in patients. Early evidence suggests natural immunity from SARS-CoV-2 may not last very long, but more studies are needed to better understand this. Vaccination should not occur until the patient has met criteria to discontinue isolation.

If I miss receiving the second dose of the Pfizer or Moderna vaccine at the recommended time, do I have to start the process over?
Patients who do not receive the second vaccination dose at 21 days for Pfizer or 28 days for Moderna should still receive that second dose as soon as possible thereafter. However, if it is not feasible to adhere to the recommended interval and a delay in vaccination is unavoidable, the second dose of Pfizer-BioNTech and Moderna COVID-19 vaccines may be administered up to 6 weeks (42 days) after the first dose. There are currently limited data on efficacy of mRNA COVID-19 vaccines administered beyond this window. If the second dose is administered beyond these intervals, there is no need to restart the series.

New variant strains of SARS-CoV-2 are now in the United States. Will a vaccine still be effective?
Scientists are working to learn more about these variants to better understand how easily they might be transmitted and whether currently authorized vaccines will protect people against them; however, early evidence suggests the vaccines remain effective against the variant. Currently, there is no evidence that these variants cause more severe illness or increased risk of death. New information about the virologic, epidemiologic, and clinical characteristics of these variants is rapidly emerging. The Missouri State Public Health Laboratory, in collaboration with the CDC, is monitoring the situation closely.

I was vaccinated, but an antibody/serology test reveals I have no antibodies? Why is that?
Antibody testing is not currently recommended to assess for immunity to COVID-19 following COVID-19 vaccination or to assess the need for vaccination in an unvaccinated person. Since vaccines induce antibodies to specific viral protein targets, post-vaccination serologic test results will be negative in persons without history of previous natural infection if the test used does not detect antibodies induced by the vaccine.

Privacy
What will I need to provide to get vaccinated?
This will vary for each vaccinator. Just like a regular doctor's appointment, we recommend you call ahead to ask what you will need to provide. Examples may include a driver license and insurance provider information, if applicable. To learn more about cost and insurance needs, please scroll to the cost section below.

How will my information be used?

Missourians' healthcare information is, and will continue to be, safe. We will never use individual patient information that you provide in unethical ways. Limited data is reported from your local vaccination site to state and federal government.

Cost + Insurance

What will be the cost of getting vaccinated?

Nothing. The federal government is providing the vaccine free of charge to all people living in the United States, regardless of their immigration or health insurance status.

COVID-19 vaccination providers **cannot**:

- Charge you for the vaccine
- Charge you directly for any administration fees, copays, or coinsurance
- Deny vaccination to anyone who does not have health insurance coverage, is underinsured, or is out of network
- Charge an office visit or other fee to the recipient if the only service provided is a COVID-19 vaccination
- Require additional services in order for a person to receive a COVID-19 vaccine; however, additional healthcare services can be provided at the same time and billed as appropriate.

COVID-19 vaccination providers **can**:

- Seek appropriate reimbursement from the recipient's plan or program (e.g., private health insurance, Medicare, Medicaid) for a vaccine administration fee
    - However, providers **cannot** charge the vaccine recipient the balance of the bill
- Seek reimbursement for uninsured vaccine recipients from the Health Resources and Services Administration's COVID-19 Uninsured Program.

Individuals aware of any potential violations of these requirements are encouraged to report them to the Office of the Inspector General, U.S. Department of Health and Human Services, by calling 1-800-HHS-TIPS or the website TIPS.HHS.GOV.

If I'm uninsured, can I get vaccinated?

No resident may be charged for the COVID-19 vaccine, so uninsured Missourians cannot be denied vaccination based on their health insurance status.

History

Have we developed a coronavirus vaccine before?

Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) are two diseases caused by coronaviruses that are closely related to the virus that causes COVID-19. Researchers began working on developing vaccines for these diseases after they were discovered in 2003 and 2012, respectively. None of the SARS vaccines ever made it past the first stages of development and testing. One MERS vaccine (MVA-MERS-S) successfully completed a phase 1 clinical trial in 2019. Some researchers are taking lessons learned from this earlier vaccine research to inform their strategy for developing a COVID-19 vaccine.

Rumor Control

There is no evidence that the mRNA vaccine causes autoimmune disorders.

Rumor: COVID-19 vaccines causes autoimmune disorders.
Fact: The mRNA in the COVID-19 vaccines is heavily modified to not trigger the immune system in a way that would cause autoimmunity as a complication. Currently, many studies are underway to investigate safety and risk of disease flare after administering COVID-19 vaccines in patients with autoimmune diseases. Modified mRNA vaccines have been already used

for several years for other indications, and there is no data indicating that mRNA vaccine can cause an autoimmune disease. Overall, vaccine experts and physician scientists agree that the benefits of vaccines outweigh the potential risks.

The COVID-19 vaccine will be released only when it's proven safe and effective.

Rumor: The vaccine was rushed, so it can't possibly be safe.
Fact: No corners have been cut in developing a COVID-19 vaccine. Scientists have had a jump on developing the COVID-19 vaccine, using their experience from previous coronavirus vaccine efforts. Another way to preserve safety and save time is by working on efforts simultaneously, rather than one after another. For example, COVID-19 vaccines were in phase 3 clinical trials at the same time they were being manufactured. When their safety and efficacy was proven, manufactured vaccines could be used. If they didn't pass the approval process, the unproven vaccines wouldn't have been used.

You cannot get COVID-19 from the vaccines.

Rumor: The vaccines can give you COVID-19.
Fact: You cannot get COVID-19 from the vaccines. None of the authorized and recommended COVID-19 vaccines (or others currently in development) contain the live virus that causes COVID-19. This makes it impossible to get COVID-19 from the vaccine. The vaccines teach our immune systems how to recognize and fight the virus that causes COVID-19. Some individuals may contract COVID-19 after being vaccinated because they may have been exposed to COVID-19 prior to being vaccinated or before they obtain their second dose of vaccine. After receiving two doses of the Pfizer or Moderna vaccines, individuals could have 94-95% protection from contracting COVID-19 (based on clinical trial efficacy). Janssen's clinical trial data show an estimated 85% efficacy rate against severe forms of COVID-19. If an individual still contracts COVID-19 after being fully vaccinated, the person will most likely have extremely mild symptoms or be asymptomatic.

There is no reason to believe that the COVID-19 vaccines will not be effective against additional strains of SARS-CoV-2.

Rumor: There are new strains of SARS-CoV-2 in the United Kingdom and South Africa, so the new vaccines won't be effective.
Fact: According to medical experts, including current and former U.S. Surgeon Generals, there is no firm reason to believe that the vaccines that have been developed and approved in the U.S. will not be effective against new strains of the virus.

Bell's palsy is not a side effect of the COVID-19 vaccine.

Rumor: You can get Bell's palsy from the COVID-19 vaccine.
Fact: Bell's palsy is not considered to be a side effect of the vaccines. Cases of Bell's palsy, a temporary condition, were reported in few participants in the mRNA COVID-19 vaccine clinical trials. However, the Food and Drug Administration (FDA) does not consider these to be above the rate expected in the general population. They have not concluded these cases were caused by vaccination. Additionally, those who have previously had Bell's palsy may receive a Pfizer, Moderna or Janssen COVID-19 vaccine.

You cannot get HIV from the COVID-19 vaccine.

Rumor: I can get HIV from the COVID-19 vaccines.
Fact: You cannot get HIV from any of the COVID-19 vaccines. Both Pfizer and Moderna vaccines are mRNA vaccines encoding spike protein specific only to the virus causing COVID-19, and only contain necessary ingredients to ensure a safe delivery of the mRNA to initiate an immune response. Participants in the clinical trial of the Australian COVID-19 vaccine (not Pfizer or Moderna) developed positive HIV tests, but those were all false positive tests. The Australian vaccine was using sequences similar to the tiny part of the HIV virus to stabilize their vaccine to improve delivery, and all participants were informed that they may develop false positive HIV test.

The COVID-19 vaccines will not cause you to test positive on COVID-19 viral tests.

Rumor: I can test positive for COVID-19 after being vaccinated.
Fact: Vaccines currently in clinical trials in the United States won't cause you to test positive on viral tests, which are used to see if you have a current infection. This rumor is false even for the Janssen vaccine, which uses viral vector (carrier)

technology aided by a modified adenovirus. Adenoviruses cause the common cold and differ greatly from coronaviruses. Additionally, the adenovirus used as a carrier in Janssen's vaccine has been modified to ensure no illness will result.

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 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.

The COVID-19 vaccines will not make you test positive on a diagnostic COVID-19 test (e.g., PCR or antigen test).
Rumor: If I get vaccinated and am then tested for COVID-19, I will receive false positive results.
Fact: Receiving the COVID-19 vaccine will not affect your PCR or antigen test results since these tests check for active disease, not immunity. There is no live virus present in any of the COVID-19 vaccines. The vaccine is intended to induce an immune response, so a serology test (antibody test) may be positive in someone who has been vaccinated.

The flu vaccine will not protect you from coronavirus.
Rumor: The flu vaccine will also work against coronavirus.
Fact: Influenza and COVID-19 (SARS-CoV-2) belong to two different RNA virus families, so one vaccine is not interchangeable for another. Influenza belongs to the Orthomyxoviridae family, while SARS-CoV-2 is classified in the Coronaviridae family. Further, both the Influenza and SARS-CoV-2 rely on different protein layers to initiate responses. Influenza uses two surface antigens, while SARS-CoV-2 uses spike proteins, so their immunization approaches are different.

However, it is important that you also consider getting the flu vaccine this year. In a typical year, more than 100,000 Missourians become sick from the flu and some are hospitalized. To ensure Missouri has the capacity to care for COVID-19 patients, we need to do whatever we can to prevent additional strains on our healthcare system.

The COVID-19 vaccines do not alter your DNA.
Rumor: The COVID-19 vaccines will tamper with your DNA.
Fact: : That rumor is baseless. mRNA provides a set of instructions to your cells to create an immune response specific to COVID-19. Medical doctors independent of the vaccine development teams have verified that using mRNA will not alter the DNA of our body's cells. The COVID-19 vaccines were created through mRNA technology. They do not introduce DNA into your body.

This rumor is false even for the Janssen vaccine, which uses viral vector (carrier) technology aided by an modified adenovirus. The vector used in Janssen's vaccine is a harmless adenovirus (like the common cold) that has been modified so it won't be able to replicate or cause illness.

The COVID-19 vaccine doesn't cause female sterilization.
Rumor: The vaccine contains Syncytin-1, which is vital for the formulation of human placenta in women.
Fact: Medical professionals have called this "an utterly bizarre claim." None of the COVID-19 vaccines contain Syncytin-1. Furthermore, there are no protein-based vaccines among the candidates in phase 3 clinical trials for COVID-19. Scientifically, there is no sequence homology between SARS-CoV-2 and Syncytin-1, so any immune response initiated by the vaccine against SARS-CoV-2 would not affect Syncytin-1.

The COVID-19 vaccine process does not involve political figures.
Rumor: The vaccine was rushed for political reasons.
Fact: The approval process does not include approval from any elected official. Scientific data and information generated by large-scale clinical trials is reviewed by the U.S. FDA, medical and public health experts from the Advisory Committee on Immunization Practices and the CDC before a vaccine will be made available.The federal effort called Operation Warp Speed has no formal oversight of or control over the vaccine approval process that determines safety and efficacy.

Bill and Melinda Gates are not collecting your biometric data.

Rumor: Bill & Melinda Gates will use the COVID-19 vaccine to collect human biometric data that will then be uploaded to a cloud environment and connected with cryptocurrency.
Fact: There is no tracking chip technology involved in the COVID-19 vaccine, or any vaccine. Although the Bill and Melinda Gates Foundation has been involved in philanthropy and public health for years, there is no truth in this rumor.

Mercury has not been confirmed as an ingredient in the COVID-19 vaccines. There is no evidence that ethylmercury used in previous vaccines have caused harm to the human body.

Rumor: Mercury will be present in the COVID-19 vaccines and is dangerous.
Fact: Pfizer and Moderna's vaccines do not contain mercury. Also, mercury is not a confirmed ingredient in any other COVID-19 vaccines at this time, but has been safely used in extremely small amounts to prevent dangerous germs, like bacteria and fungi, from growing in multi-dose vaccine vials. By preventing that harmful bacteria growth, residents see fewer severe local reactions.

Mercury is a naturally occurring element in the world. There are two primary types of mercury that humans may come into contact with: methylmercury and ethylmercury. Methylmercury can be toxic to humans in high doses and is not used in vaccines. Ethylmercury is used in extremely small amounts to prevent harmful bacteria from growing in vaccines and is quickly cleared from the human body. The ethlymercury medical product Thimerosal has a record of being very safe. Data from many studies show no evidence of harm caused by the extremely small amounts used in vaccines.

Residents will not be used as "guinea pigs" if they choose vaccination.

Rumor: The government just wants to use me as a "guinea pig."
Fact: All residents that have participated in clinical studies thus far have volunteered to do so and residents who choose vaccination will not be considered a test subject. Vaccinators will be required to track severe reactions to the vaccine, which is standard protocol for all vaccines.

COVID-19 and the vaccine are not a hoax.

Rumor: The virus is a hoax.
Fact: COVID-19 is not a hoax and neither is the vaccine. It is recommended by medical professionals that you consider getting vaccinated.

The COVID-19 vaccine will not have a tracking chip inside of it.

Rumor: Microchip hardware will be used in a vaccine to track Americans.
Fact: There will not be any tracking mechanisms inside of a COVID-19 vaccine.

You can still donate blood after receiving COVID-19 vaccines.

Rumor: Getting a COVID-19 vaccine will stop you from donating blood.
Fact: According to the American Red Cross, receiving the Pfizer, Moderna or Johnson & Johnson COVID-19 vaccines will not affect your eligibility to donate blood. You may donate blood, with no waiting period, even after you have been fully vaccinated. Individuals who have received a COVID-19 vaccine are not eligible to donate convalescent plasma for COVID-19 patients.

For additional resources related to these questions, please visit MOStopsCovid.com/facts.