

COVID-19 Vaccine Q&A

By Dr. Leslie Israel

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LADWP Chief Physician Dr. Leslie Israel hosted a brown bag luncheon and Q&A on COVID-19 vaccines on March 18, 2021. To watch a recording of the event, click [here](#). Due to time constraints, not all questions submitted to Dr. Israel could be answered during the event. Dr. Israel has answered these additional questions below.

Guidance about COVID-19 vaccines is constantly evolving. **Please check the CDC, local and state public health department websites or with your local healthcare provider for the latest information.**

Is this the first mRNA Vaccine that has been used for vaccination against viruses?

Yes. The science of designing mRNA to create antibodies to fight infections, enzymes to reverse a rare disease and other possible medical applications was being studied in the 1990s by University of Pennsylvania faculty, Drs. Karikko and Weissman. A series of scientific papers on mRNA technology started in 2005. In 2010, a leader in biotechnology recognized the wide application of mRNA technology, including creating new vaccines. Shortly thereafter, two biotech companies were established (Moderna in 2012 and BioNTech in 2015) to research the pharmaceutical applications of mRNA technology.

On January 10, 2020, the genetic code of the SARS-COV2 Virus was globally shared and Moderna, BioNTech and other companies got to work. Moderna and BioNTech, using mRNA technology, were competing against dozens of other groups that employed varying vaccine making approaches, including the traditional, more time-consuming method of using an inactivated virus. BioNTech partnered with Pfizer, a strong pharmaceutical manufacturer. Both the Moderna and Pfizer vaccines were in the latest stage of clinical trials on human volunteers on July 27, 2020.

Are we being injected with any part of the COVID virus?

No. The vaccine does not contain the COVID virus. The injection contains a message or blue print that creates antibodies to the COVID-19 virus.

I'd like to know if the Moderna vaccine is kosher? If not, which vaccine is kosher?

The Orthodox Union and the Rabbinical Council of America presented a document entitled ["COVID-19 Vaccine Guidance"](#) dated December 15, 2020 (29 Kislev5781) "...the conclusion of our poskim is that, pursuant to the advice of your personal health care provider, the Torah obligation to preserve our lives and the lives of others requires us to vaccinate for COVID-19 as soon as a vaccine becomes available....This guidance is intended as general guidelines and should not be construed by any individual as, or be substituted for, medical or other professional advice."

We have never successfully vaccinated against any coronavirus. Years after the SARS and MERS epidemic, doctors have yet to develop a vaccine. In fact, some of the failed SARS vaccine caused hypersensitivities to the SARS virus. This means that those who are vaccinated could potentially get the disease more severely than the unvaccinated. How can we be sure that the same could not happen with either of the currently available COVID-19 vaccines?

The human coronaviruses called Severe Respiratory Syndrome (SARS) and the Middle East Respiratory Syndrome (MERS) referred to in this question, emerged in 2002 and 2012 respectively. SARS spread to other countries in Asia and Canada, and because of a concern for reemergence, vaccine research was initiated using inactivated whole virus (not an mRNA vaccine). Research for SARS and MERS vaccinations began with animal models. The MERS also used inactivated virus. The SARS and MERS vaccinated animal models showed changes in their lung tissue when looked at under the microscope, which suggested a hypersensitivity reaction. A hold was placed on these vaccines. Fortunately, infection control procedures curtailed the SARS and MERS pandemics and avoided an epidemic. The current COVID-19 vaccines do not use inactivated whole virus. Current COVID-19 vaccines were researched and tested with no evidence of a hypersensitivity reaction.

It takes 5-10 years to fully develop a vaccine. Even in grade school, we learned about the scientific method. The only way the COVID19 vaccines could be available is to skip early-stage trials entirely. Have there been any late stage human trials that have been peer reviewed? What about all those "severe adverse effects" that the internet has reported including death?

The development of the COVID-19 vaccines used mRNA technology, which was discovered in the 1990s. Please see response to question 1.

COVID-19 vaccines did not skip early-stage or late stage clinical trials. The late stage clinical trials (in humans) were peer reviewed and scrutinized by the FDA and ACIP before being used. The severe adverse effects, including death, reported on the internet are not accurate. The currently approved vaccines being used in the United States are not deadly.

The COVID vaccine is based on new technology, which has never been approved for use on humans before. Before 2020, no mRNA vaccine has ever been approved for use. How do we know that we are not being used as human guinea pigs with possible negative side effects down the road?

Please see responses to questions 1 and 4.

This reminds me of the thalidomide generation. The drug was approved for use in Europe to treat morning sickness. It was supposed to be safe. It was, for the mothers, but the babies were the ones that had suffered with severe birth defects and had to be taken care of by their families for the rest of the deformed child's life.

The Thalidomide tragedy occurred prior to the rigorous drug approval and monitoring systems currently in place at the United States Food and Drug Administration. Thalidomide was initially marketed in late 1950's in Germany as a sedative. It was marketed off-label for morning sickness in pregnancy. In the early 1960's, the FDA Inspector prevented the drug's approval in the United States due to the lack of data from clinical data and concerns about birth defects. The FDA's action motivated the passing of the Kefauver-Harris Drug Amendments Act, which tightened restrictions, surveillance and approval processes for drugs sold in the United States. Thalidomide may be used under very tight controls most commonly in the treatment of leprosy and multiple myeloma.

The mRNA vaccine was tested in tens of thousands of adults in late stage clinical trials and data analytic reviews before passing FDA emergency authorization along with Advisory Committee on Immunization Practices (ACIP) approval for use.

Can the second dose of Moderna be given at a different location? The series lot # may be different. I wanted to be sure if the Moderna series lot # mattered or not.

Yes, it can be given at a different location. The Moderna lot # does NOT matter. As long as it's Moderna, that's all that matters. A lot number is an identification number assigned to a particular quantity or lot of material. All medications and immunizations have a lot number that facilitates drug manufacturing inventory control and tracing adverse incidents.

I heard not to take any blood thinners before getting the vaccine, true?

Check with your doctor about the blood thinner you are on.

If you have had Botox, can that cause you to have a negative reaction to the COVID vaccine?

I've not heard of BOTOX as being a contraindication to getting the COVID-19 vaccine. Please check with the doctor who injected you with BOTOX.

Is it safe for fully vaccinated household to gather with other households that were not vaccinated?

You need to use the same precautions of wearing a mask, distancing and gathering outdoors.

Can a person who had bell's palsy 3 times get the vaccine?

There are many reasons for Bell's palsy, please check with your treating provider so that they can review your history.

If you are scheduled to have mammogram, you can't take vaccine? Why?

I've not heard that getting a mammogram was a contraindication for getting the vaccine. Please check with the imaging site where you are scheduled. It is likely due to an abundance of caution in avoiding imaging temporary possible side effects of the vaccine such as lymph node swelling or the inability to move one's sore arm.

Since we heard in the news that it's easy to catch fast spreading COVID-19 virus, and perhaps we may not have any symptoms, is it still safe to receive a vaccine for COVID-19, or do we need to test negative for COVID-19 before receiving the vaccine?

You do not need to test negative before getting the COVID-19 vaccine.

This is a rushed, untested vaccine made using unprecedented technology with no legal recourse should it do me harm to treat a virus which 99.8% of people will survive. Do I really want or need to take that risk?

The benefits of vaccination outweigh the risks. Please refer to prior responses in the previous section regarding the concerns about "rushed" and "untested" vaccines. In the case of COVID-19, we look at number of cases and deaths. There is no survival data showing 99.8% of the people survive. Individuals should discuss their concerns with their treating health care provider.

Please note that the survival rate is a component of a survival analysis. The survival rate is calculated by dividing the percentage of people diagnosed with COVID-19 who are alive at the end of a specified period of time by the percent of people in that general population of the same

sex and age who are alive at the end of the same time period. Cancer survival rates commonly use a 5-year time period. In the future, we will likely have this information for COVID-19.

Is it safe to go to the dentist if you are fully vaccinated?

Dentists follow safe COVID-19 practice guidelines from the American Dental Association. Going to the dentist is as safe as going to your doctor.

Is it safe at home not to wear a mask and eat with someone that works in the grocery store (if they are both fully vaccinated) but 1 other person in the house is still not vaccinated?

At this time, public health experts report low risk of transmission following vaccination. Therefore, it appears safe, if you all have been living in the same household, eating together and socializing before being vaccinated, and the unvaccinated person is at low risk for a serious illness due to COVID-19 exposure (that is, no underlying medical conditions). I would suggest your group look at the [CDC website](#).

Is it safe to stay in a hotel (vaccinated or not)?

Hotels have postings about their COVID-19 safety practices. Use good sense when you are in the hotel general areas, wearing a mask and distancing. Check the hotel's website for their COVID-19 safety measures. Hotels reportedly do a deep clean when preparing a room for a new occupant. Some hotels may not offer maid service during while occupied. Generally, they offer clean towels, soap, etc. and trash pickup while the room is occupied.

You had recommended that we can get together with other family members who have been vaccinated. Right now there is no vaccine for kids 18 or 16 years old (depending on vaccine types), would you recommend that it is ok to gather with other family members who have kids that of course have not been vaccinated and are now in hybrid schooling.

If the kids are not immunosuppressed or have a chronic medical disease, then they may be at low risk. Please check with the parents of these kids before planning to gather and they may check with their pediatricians. Currently, clinical trials of vaccinations in kids are being performed. I expect that we have more information on vaccinating kids (younger than 16 years old) by the fall of 2021.

Do I need to take Flu shot first before the Covid 19 vaccine?

No.

I have heard the vaccination has more severe side effects for those who have actually had COVID before, is that true?

No science on that, to date. However, I would plan on taking the next day off – some get side effects several hours after the vaccine. Block your calendar.

I am curious why 50% will not take the vaccine.

Me too, I understand it may be due to mistrust or misinformation.

Is there scientific data that the vaccine stops virus transmission? Or does it just reduce symptoms?

People transmit the virus, so to stop the transmission, public health experts urge people to be vaccinated. The vaccine has been shown to prevent severe illness and hospitalization (please review the [video of the Vaccine Q&A panel](#) for more info).

If an employee misses their second vaccine appointment and does not receive the second dose, does that make the first dose ineffective? How should they proceed if they still want vaccination? Is there a window of time an employee has to receive the second vaccination shot if he/she is unable to receive it on the date indicated on their Vaccine Record?

No, missing the second dose does not make the first dose ineffective. The CDC states that the second dose should be administered as close the recommended interval as possible. There is no definite window, six weeks after the first dose is considered acceptable. However, longer intervals may occur. I expect more scientific information from the CDC and public health experts regarding immunity and repeat dosing in the months ahead.

I received my second Moderna shot 29 days rather than 28 days as recommended. Is there any documented difference in the protection from the vaccine since the appointment was provided one day later than recommended?

No.

I heard that Dr. Fauci said that one is fully protected two weeks after the second dose for the Moderna and Pfizer vaccine or the one dose from the Johnson and Johnson vaccine. Is this true?

Yes.

Although common sense might dictate that we get the vaccination that is near 100% effective, are there circumstances that make a particular vaccine more or less effective? Does age or underlying conditions play a part?

We are not able to compare the vaccines side by side. The circumstances that make us more vulnerable to disease are age, underlying medical conditions, health status (obesity, deconditioned) and etc. The elderly population was the highest priority because of age. Healthcare workers were included to prevent them from disease and protect the patient population.

Can a person still get a COVID infection even if he/she has been fully vaccinated?

A vaccinated person has a low risk of contracting COVID shortly after being fully vaccinated. I expect by the fall of 2021, we will learn more about the duration of immunity and the need for a future booster.

Do we need to get vaccinated again after 3 months?

No. I expect by fall 2021, we will learn more about the need for a future booster.

Can someone (fully vaccinated) get the virus if he/she was close and talking to someone without a mask who is still not vaccinated?

While it's a low risk, it is not advisable unless the person is a member of your household.

I have heard there's a new variant from France that is resistant against the vaccine. Is there more vaccine testing happening to address new variants?

Yes. Also, there is something called "genomics," the science that can identify the "variant" in those with COVID-19. This is being done to monitor the types of variants found in the US.

Can you carry the virus after being vaccinated and not have symptoms and transmit to a non-vaccinated person?

This is considered a low risk, but masking and distancing continue to be recommended. This question is being studied as more people are getting vaccinated, and public health is monitoring.

People are reporting getting sick from getting the COVID vaccination. They exhibit flu-like symptoms which are also COVID19 symptoms. Can I get some sort of viral infection/disease from being near these people who got vaccinated and have these reported symptoms?

No.