mRNA in lipid shell RNA vaccines contain a strip of genetic material within a lipid bubble. Cell Inside the cell, ribosomes read the mRNA instructions for the spike protein. Ribosome Nucleus The cell then begins to generate copies of the spike protein. Spike proteins Immune Response cells consume spike proteins and pass viral peptides to T-helper cells. The immune system, presented with the peptide, T-helper learns to recognize the virus cell and releases cytotoxic T cells and B cells Cytotoxic Virus-infected cell Cvtotoxic T cells detect and eliminate virus-infected cells. **Antibodies** B cells

Antibodies from B-cells block the virus from infecting healthy cells.

THE MODERNA VACCINE

How it works

A general description of how the vaccine works in your body is outlined on the schematic on the left.

On December 18, 2020, Moderna, Inc., a biotechnology company pioneering messenger RNA (mRNA) therapeutics and vaccines, received authorization by the FDA for emergency use of mRNA-1273, Moderna's vaccine against COVID-19 in individuals 18 years of age or older.

The vaccine is new and therefore, understandably, there is some hesitancy around whether or not to take the vaccine. mRNA technology is not entirely new. It has been studied for years and used in cancer as well as being studied for other Corona viruses. It has not been widely used because those viruses never reached pandemic proportions.

Below are a few facts that may help you make an informed decision:

The vaccine is an "mRNA vaccine" which means it contains a "messaging code" and tells our bodies to mimic the "COVID spike protein."

- When your cells release the "COVID spike protein," your immune system will form antibodies to the look-a-like "covid spike protein" without the recipient becoming sick.
- This means that you cannot get the Coronavirus (COVID-19) from the vaccine.

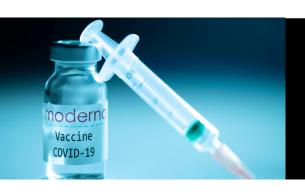
Side effects from vaccinations are a concern for many individuals. As with any vaccine, those receiving the COVID-19 vaccine may experience mild symptoms in the first several days. The most common side effects after the two-dose series included injection site pain (88.2%), erythema (8.6%), swelling (12.2%), and ipsilateral lymphadenopathy (14.2%).

Severe symptoms are extremely rare, and have been shown in people who have previously had severe allergic reactions reactions to start. The risk of medical complications from getting the virus is far greater than the known risk of taking the vaccine.

Lastly, many individuals are concerned about the relative quickness that the vaccine was developed. Because we are in a global pandemic, much of the "red tape" in the drug approval process was shortened, and in contrast, significant technology and funding was provided. Normally, there would be months of waiting in each phase of clinical trials, whereas this was focused as a number 1 priority. The number of people tested is on par with, and in many cases, better than vaccines that are currently available.

INGREDIENTS: The Moderna COVID-19 Vaccine contains the following ingredients: messenger ribonucleic acid (mRNA), lipids (SM-102, polyethylene glycol [PEG] 2000 dimyristoyl glycerol [DMG], cholesterol, and 1,2-distearoyl-sn-glycero-3-phosphocholine [DSPC]), tromethamine, tromethamine hydrochloride, acetic acid, sodium acetate, and sucrose





You are being offered the Moderna COVID-19 Vaccine to prevent Coronavirus Disease 2019 (COVID-19) caused by SARS-CoV-2. This fact sheet contains additional information to help you understand the risks and benefits of the Moderna COVID-19 Vaccine.

The Moderna COVID-19 Vaccine is a vaccine and may prevent you from getting COVID-19. There is no U.S. Food and Drug Administration (FDA) approved vaccine to prevent COVID-19. It is your choice to receive the Moderna COVID-19 Vaccine.

WHAT YOU NEED TO KNOW BEFORE YOU GET THIS VACCINE

Read this Fact Sheet for information about the Moderna COVID-19 Vaccine. Talk to the vaccination provider if you have questions.

The Moderna COVID-19 Vaccine is administered as a 2-dose series, 1 month apart, into the muscle. The Moderna COVID-19 Vaccine may not protect everyone.

WHAT IS THE MODERNA COVID-19 VACCINE?

The Moderna COVID-19 Vaccine is an unapproved vaccine that may prevent COVID-19. There is no FDA-approved vaccine to prevent COVID-19.

The FDA has authorized the emergency use of the Moderna COVID-19 Vaccine to prevent COVID-19 in individuals 18 years of age and older under an Emergency Use Authorization (EUA).

WHAT SHOULD YOU MENTION TO YOUR VACCINATION PROVIDER BEFORE YOU GET THE MODERNA COVID-19 VACCINE?

Tell the vaccination provider if you:

- · have any allergies
- · have a fever
- are immunocompromised or are on a medicine that affects your immune system
- · are pregnant or plan to become pregnant
- · are breastfeeding
- have received another COVID-19 vaccine

WHO SHOULD GET THE MODERNA COVID-19 VACCINE?

FDA has authorized the emergency use of the Moderna COVID-19 Vaccine in individuals 18 years of age and older.

WHO SHOULD NOT GET THE MODERNA COVID-19 VACCINE?

You should not get the Moderna COVID-19 Vaccine if you: had a severe allergic reaction after a previous dose of this vaccine

had a severe allergic reaction to any ingredient of this vaccine

HOW IS THE MODERNA COVID-19 VACCINE GIVEN?

The Moderna COVID-19 Vaccine will be given to you as an injection into the muscle.

The Moderna COVID-19 Vaccine vaccination series is 2 doses given 1 month apart.

If you receive one dose of the Moderna COVID-19 Vaccine, you should receive a second dose of this same vaccine one month later to complete the vaccination series.

WHAT ARE THE BENEFITS OF THE MODERNA COVID-19 VACCINE?

In an ongoing clinical trial, the Moderna COVID-19 Vaccine has been shown to prevent COVID-19 following 2 doses given one month apart. The duration of protection against COVID-19 is currently unknown.

WHAT ARE THE RISKS OF THE MODERNA COVID-19 VACCINE?

Side effects that have been reported with the Moderna COVID-19 Vaccine include:

- injection site pain, swelling and/or redness
- tiredness
- headache
- muscle pain
- chills
- · joint pain
- fever
- nausea
- swollen lymph nodes

There is a remote chance that the Moderna COVID-19 Vaccine could cause a severe allergic reaction. A severe allergic reaction would usually occur within a few minutes to one hour after getting a dose of the Moderna COVID-19 Vaccine. Signs of a severe allergic reaction can include:

- · Difficulty breathing
- · Swelling of your face and throat
- A fast heartbeat
- · A bad rash all over your body
- Dizziness and weakness

These may not be all the possible side effects of the Moderna COVID-19 Vaccine. Serious and unexpected side effects may occur. Moderna COVID-19 Vaccine is still being studied in clinical trials.

WHAT SHOULD I DO ABOUT SEVERE SIDE EFFECTS?

An allergic reaction could occur after the vaccinated person leaves the clinic. If you see signs of a severe allergic reaction (hives, swelling of the face and throat, a fast heartbeat, dizziness or weakness) call 911 and get the person to the nearest hospital.

Additionally, side effects should be reported to FDA/CDC Vaccine Adverse Event Reporting System (VAERS) at 1-800-822-7967 or https://vaers.hhs.gov/reportevent.html. You can also report side effects to ModernaTX, Inc. at 1-866-MODERNA.

You may also enroll in V-safe (www.cdc.gov/vsafe), a new voluntary tool that uses text messaging and web surveys to check in with people who have been vaccinated to identify potential side effects.



To view complete fact sheet for Emergency Use Authorization, scan this QR Code or visit modernatx.com/covid19vaccine-eua

For concerns, contact your healthcare provider.