

Marin Community Clinics encourages all adults to receive the COVID-19 vaccine. Because the virus is new and the vaccine to fight it is also new, we don't have all the answers. We expect some answers to change over time, as experts on vaccines and viruses learn more. We will update the FAQ as more information is available.

## SAFETY

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### Is the vaccine safe?

The COVID-19 vaccine is as safe as any other vaccine. The vaccine went through the same strict Food and Drug Administration (FDA) process as every other vaccine, meeting all safety standards. Vaccine experts and reviewers used the same guidelines for developing the COVID-19 vaccines as vaccines made in the past. No steps were skipped in this process.

### Can I get COVID-19 from getting vaccinated?

You cannot get sick from getting the COVID-19 vaccine. The vaccine does not have the virus or its genetic material that makes us ill. Instead, the vaccine uses a small part of the outside of the virus cell, where no harmful material exists. This piece of the outside of the virus is a single unit called the "spike protein". The spike protein cannot give us COVID-19 because it doesn't have any of the harmful material.

### Does the vaccine put a microchip in my body?

No vaccines – including shots for COVID-19 – contain microchips, trackers or devices that would track or control your body in any way. Vaccine shipments are carefully watched at each step as they are given out across the country. The idea that these shots will place tracking devices into people is false.

### How was the vaccine made so fast?

The COVID-19 vaccine was ready for use faster than other vaccines for several reasons:



**A Large Number of Volunteers:** More than 75,000 people participated in the vaccine tests for Pfizer and Moderna vaccines. Without the need to look for volunteers, trials could start faster.



**Regular Data Checks:** In the making of past vaccines each step in the process had to be completed before studying the data. During the COVID-19 vaccine trail, information was reviewed a lot more frequently. By studying the data weekly, we could have faster results.



**Funding:** In 2020, the US Government gave billions of dollars toward the making of these vaccines while they were still being tested. This meant that once a vaccine was confirmed to be safe and effective, it had already been made and could be given to the public.



**Technology:** The technology used to make vaccines like the COVID-19 vaccine is over 10 years old. The discovery, first described in scientific papers in 2005, led to the making of vaccines against corona viruses like COVID-19. These are called mRNA vaccines which are easier and faster to make in large amounts unlike other types of vaccines. This is how the COVID-19 vaccines we are now using, were created.

## HOW THE VACCINE WORKS

### What is an mRNA vaccine and how is it different from other common vaccines?

All vaccines help our immune system prepare to fight infections in the future. Many existing vaccines use a weakened or dead virus to build an immune response. Our system sees this weakened or dead virus as a threat and creates antibodies or fighting cells for that virus. The body remembers the antibodies made during this response. When we come into contact with the same virus in the future, our system is ready to fight by activating these antibodies. We are now protected against infection.

The COVID-19 vaccine uses messenger RNA to build an immune response. Messenger RNA, or mRNA, is a natural part of all cells including virus cells. mRNA carries instructions to the immune system for making specific proteins. Once the proteins are made, our cells break down the instructions and get rid of them but the proteins remain. The COVID-19 vaccine takes advantage of this process.

The mRNA in the vaccine teaches our immune cells to make a harmless piece of protein called a “spike protein”. Once the protein is created, the immune cell displays it on its surface. The immune system recognizes this piece of protein doesn’t belong, builds an immune response, and makes antibodies. These same antibodies can be used to fight the COVID-19 virus when we come into contact with it. COVID-19 vaccines protect us from the virus that causes COVID-19 without having to get sick.

### What are the ingredients in the COVID-19 vaccines?

The table below allows you to review the ingredients in the COVID-19 vaccines. The table comes from the Centers for Disease Control (CDC).

**COVID-19 Vaccine Components**

Description	Pfizer-BioNTech COVID-19 vaccine	Moderna COVID-19 vaccine
<b>mRNA</b>	Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2	Nucleoside-modified mRNA encoding the viral spike (S) glycoprotein of SARS-CoV-2
<b>Lipids</b>	2[(polyethylene glycol)-2000]-N, N-ditetradecylacetamide	Polyethylene glycol (PEG) 2000 dimyristoyl glycerol (DMG)
	1,2-distearoyl-sn-glycero-3-phosphocholine	1,2-distearoyl-sn-glycero-3-phosphocholine
	Cholesterol	Cholesterol
	(4-hydroxybutyl)azanediyl)bis(hexane-6,1-diyl) bis(2-hexyldecanoate)	SM-102 (Proprietary to Moderna)
<b>Salts, sugars, buffers</b>	Potassium chloride	Tromethamine
	Monobasic potassium phosphate	Tromethamine hydrochloride
	Sodium chloride	Acetic acid
	Dibasic sodium phosphate dihydrate	Sodium acetate
	Sucrose	Sucrose

If you have had an allergic reaction to any of the ingredients in these vaccines, please talk to your medical provider to get their guidance on getting the vaccine. Most people with an allergy to an ingredient in the vaccine can still get the COVID-19 vaccination.

### Are there preservatives or heavy metals in the COVID-19 vaccine?

No, there are no preservative in these vaccines. The vaccines contain no mercury or aluminum.

## Were fetal materials used to make the COVID-19 vaccine?

It is true that in the past fetal cells were used to make vaccines. These cells were used to grow the adenovirus used in those older vaccines. The new COVID-19 vaccines use mRNA to create the “spike protein”. The mRNA vaccines, like those from Pfizer and Moderna, do not use adenovirus technology and do not use fetal products.

Religious leaders against the use of fetal materials in medicine have publicly supported the use of COVID-19 vaccine.

## Is there gelatin or other pork products used to make the COVID-19 vaccine?

No pork products, such as gelatin, are used to make the COVID-19 vaccines.

Islamic medical societies in the United States (IMANA) and the United Kingdom (BIMA) agreed that both the Pfizer and Moderna vaccines are allowed. These vaccines do not have any unacceptable ingredients and religious leaders have shared their public support for the use COVID-19 vaccines.

## THE VACCINE TRIAL AND THE RESULTS

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### How was the vaccine trial done? What groups were studied and how many people were involved?

The Moderna vaccine trial had more than 30,000 participants in the United States. The people who took part in the trial are like many of our patients. Because of this, it is likely that the vaccine will be as safe and effective with our patients as it was with them.

Participants in the trial are described below:

**AGE:** the average age was 51 years old, and 25% of people were 65 years or older

**GENDER:** 47% were women, 53% were men

**RACE/ETHNICITY:** 37% were people from communities of color

- 10% African American
- 21% Latinx
- 5% Asian
- 0.8% Alaskan Native or American Indian

**MEDICAL RISK:** 17% of participants were considered high risk for COVID-19.

They had at least one medical condition such as diabetes, high blood pressure, or obesity that made them likely to get really sick if they got COVID-19

### How well does the COVID-19 vaccine work?

A vaccine’s effectiveness tells us how well the vaccine works. The COVID-19 vaccine’s effectiveness was measured by a test in which over 30,000 volunteers were vaccinated. Half of the volunteers got the real vaccine and the other half got a fake vaccine called a placebo. The group that got the real vaccine was 95% immune to COVID-19 and none of them died, needed a breathing machine, or even hospital care. In fact, the vaccine was 100% effective against the more serious health problems caused by COVID-19.

### How well does the COVID-19 vaccine work against new variants (strains) of the virus?

The data we have on how effective the vaccines are on new variants is limited and incomplete. However, so far the vaccine appears to work just as well on new variants of the COVID-19 virus as it does on the original strain. We will continue to watch this issue. We expect that new variants of COVID-19 will continue to appear.