



# **COVID-19** Vaccination



## Disclaimer

- Information about COVID-19 and vaccination changes frequently.
- This information was current as of 12/22/20.
- The vaccines described are made by Pfizer and Moderna the one vaccines that are currently available in the USA.

For up-to-date information please visit:

cdc.gov/coronavirus/2019-ncov/vaccines ph.lacounty.gov/coronavirus/vaccine

## **COVID-19 Vaccine Overview**

- Introduction
- How they work
- How they were developed
- Safety
- How vaccines are distributed
- Getting a vaccine
- Myths, scams and where to get more information



## What we know about COVID-19

- COVID-19 is caused by a virus called SARS-CoV-2
- The virus can affect people in different ways:
  - Some people with SARS-CoV-2 never get symptoms
  - Some people get mild or moderate symptoms
  - Others get severe illness this is more likely in older adults and people with certain medical conditions
  - The type of symptoms also varies
- People can pass the virus to others even if they don't have symptoms

## Vaccines are an important to tool to fight this devastating illness



## **Vaccination saves lives**

- Vaccination is a safe and effective way to prevent disease
- Vaccination save millions of lives each year
- Vaccines can protect us, our families our co-workers, and our communities



## How vaccines work

- Vaccines prepare your body's natural immune system to recognize and fight off germs such as a viruses or bacteria
  - Some vaccines contain dead or weakened versions of the germ
  - Others contain substances made to look like part of the germ
  - New mRNA vaccines teach the body to make proteins that mimic the germ
- When you get a vaccine, your immune system responds. It:
  - Makes antibodies
  - Prepares cells to respond to future infection
- After getting the vaccine, if you are exposed to the germ, your immune system remembers how to destroy it, so you don't become sick



## **mRNA** vaccines

- Our bodies use messenger RNA (mRNA) to make proteins
- The mRNA in the vaccine is packaged inside tiny oily bubbles known as lipid nanoparticles (LNPs)



- The mRNA enters our cells and teaches them how to make harmless pieces of "spike protein"
- Our immune system sees the spike protein pieces on the surfaces of our cells and knows that they don't belong there



- Our bodies react by building an immune response
   — this includes making antibodies and preparing immune cells
- This will protect us if we are exposed to the COVID-19 virus





## You can't get COVID-19 from the vaccine

- After the mRNA teaches the cell to make the protein piece, the cell breaks it down and gets rid of it
- mRNA does not enter the cell's nucleus
- mRNA vaccines **DO NOT** affect or interact with our DNA (or genes) in any way.
- These mRNA vaccines cannot give you COVID-19
- None of the vaccines being developed in the US contain the virus that causes COVID-19



## Reasons for feeling unwell after getting a vaccine

- Some people might feel unwell after they have had the vaccine:
  - They may get side effects, such as fever, after vaccination.
     These are normal and are signs that the body is building immunity



## **Reasons for feeling unwell after getting a vaccine**

- Some people might find out after they got the vaccine that they have COVID-19 :
  - They may have just become infected before they got the vaccine, but didn't get symptoms until after they got a vaccine
  - They may have got infected after they got their vaccine because it takes a few weeks for the body to build immunity. The best protection isn't until 1-2 weeks after the second dose



## Natural immunity vs COVID-19 vaccination



- Both this disease and the vaccine are new
  - We don't know how long protection from a vaccine or from a past infection will last
- What we do know is that:
  - It is possible to get COVID-19 more than once
  - If you get COVID-19, you could get very ill
  - Even if you feel OK, you could give it to other people who could get very ill

### COVID-19 vaccination is a safer way to build protection than natural immunity

## **Two Vaccines for COVID-19 are available in the US**

#### **Pfizer vaccine**

- 94-95% effective at preventing COVID-19 disease
- Age 16 and older
- 2 doses taken 21 days apart



#### Moderna vaccine

- 94-95% effective at preventing COVID-19 disease
- Age 18 and over
- 2 doses taken 28 days apart



It is important to get the same kind of vaccine for both doses.

## **Fast-tracking development while ensuring safety**

- Developing a new vaccine usually takes years
- Scientists had a head start because they had studied similar viruses and mRNA vaccines
- The government spent a lot of money to pay companies and scientists to work around the clock
- Researchers used existing networks to conduct COVID-19 vaccine trials
- Every step that is required to make sure a vaccine is safe and effective was followed
  - some of the steps were done at the same time instead of one after another



## **Manufacturing and Approval**

- Manufacturing began while clinical trials were still underway
- mRNA vaccines are faster to produce than traditional vaccines
- FDA and CDC prioritized the review and authorization of COVID-19 vaccines



COVID-19 vaccines are being held to the same safety standards as all other vaccines

## **Studies of Pfizer and Moderna COVID-19 Vaccines**

- The Pfizer and Moderna vaccines were studied in over 70,000 volunteers
- Half got vaccine and half got placebo (salt water)
- Both vaccines were tested in diverse mix of people, including older adults and communities of color
- Both vaccines were over 94% effective at preventing COVID-19 disease
- The vaccines were found to work very well and be equally safe for all



## Safety of COVID-19 vaccines is a top priority

#### Before the vaccines were authorized

- Independent panels of medical and public health experts carefully reviewed the safety data and made recommendations to the:
  - Food and Drug Administration (FDA)
  - Centers for Disease Control (CDC)

## Safety of COVID-19 vaccines is a top priority

### After the vaccines are authorized

- FDA and CDC continue to monitor the safety of vaccines
- Extra monitoring for COVID-19 vaccines including:
  - v-safe, a new text message app
  - Following up people in the studies
- Any possible problems will be quickly investigated to find out if the issue is related to the vaccine



## How vaccine are allocated

- The vaccine is being given to different groups of people in phases
  - Priorities are based on risk of becoming ill and need to keep health care system and society functioning as much as possible
  - Decided in a fair, ethical, and transparent way
- The CDC recommends who gets vaccinated first, but it is up to each state to make the final decision. Los Angeles County works on the distribution of vaccine
- There won't be enough vaccine for everyone until late Spring or Summer 2021
- Vaccine will be free for everyone



#### Visit <u>VaccinateLACounty.com</u> for details and updates

	Phase 1 Began: Mid-December Estimated everyone will have b at least one dose : Late January		<ul> <li>Healthcare workers (who have the potential for direct or indirect exposure to patients or infectious materials)</li> <li>Long-term care residents</li> </ul>				
	Phase 1B Estimated to begin: Early Feb. Estimated everyone will have been offered at least one dose : Late March*	Tier 1 Tier 2	<ul> <li>Persons 65 years and older</li> <li>Those at risk of exposure at working the following sectors:         <ul> <li>Education</li> <li>Childcare</li> <li>Emergency services</li> <li>Food and agriculture</li> </ul> </li> <li>Those at risk of exposure at work in the following sectors:</li> </ul>				
			<ul> <li>Transportation and logistics</li> <li>Oritical manufacturing</li> <li>Industrial, commercial, residential, &amp; sheltering facilities &amp; services</li> <li>Congregate settings with outbreak risk: incarcerated &amp; homeless</li> </ul>				
	Phase 1C Estimated to begin: March		<ul> <li>Persons 50-64 years old</li> <li>People 16-49 years of age and have an underlying health condition or disability which increases their risk of severe COVID-19</li> </ul>				
	Estimated everyone will have b at least one dose: Late April/Ea		<ul> <li>Those at risk of exposure at work in the following sectors:         <ul> <li>Water and wastewater</li> <li>Defense</li> <li>Chemical and hazardous materials</li> <li>Energy</li> <li>Communications and IT</li> <li>Financial services</li> <li>Government operations / community-based essential functions</li> </ul> </li> </ul>				
	Phase 2 (Proposed) Estimated to begin: Mid-May/E	arly June*	Persons 16-49 years old without high-risk medical conditions				

\*Timings are estimates and may change. The phases and tiers will overlap

## When can I get the Vaccine?



The supply of COVID-19 vaccines will be limited for the first few months. This means that the vaccine will be offered to different groups of people at different times. When enough vaccine is ready, it will be offered to everyone. Please see the phases below for estimated time frames\*. The phases will overlap so, for example, a person in Phase 1A may get their second dose of vaccine at the same time as a person in Phase 1B gets their first dose.

Sign up for the Public Health COVID-19 Vaccine Email Newsletter and/or get more information by visiting the <u>COVID-19 vaccine</u> website.

### ph.lacounty.gov/coronavirus/vaccine

#### Vaccination began in mid-December. It is estimated that everyone in Phase 1A will have been offered at least one dose of vaccine by late January/early February<sup>\*</sup>.

Note: Vaccination is only available to the healthcare workers listed in Phase 1A who have the potential for direct or indirect exposure to patients or infectious materials. (Low risk healthcare workers such as administrative support staff WITHOUT routine in-person patient contact, will be offered vaccination in later phases).

Green circles show groups that have been, or are being, offered vaccine.

Red circles show groups who are waiting to be offered vaccine.

#### Tier 1

Distribution Phases and 1

Who decides how v

Who is being vaccir

Who will be vaccina

What about children How is vaccine bein

What should I do while I

More information

How is it decided?

Vaccine Distribution

Healthcare workers and residents of skilled nursing facilities (SNFs)

Healthcare workers and residents of other long-term care facilities (facilities that provide a variety of services, including medical and personal care, to adults who are unable to live independently. This includes assisted living facilities, and similar settings for older or medically vulnerable individuals, and special needs group living facilities] [Starting 1/11/21]

- Healthcare workers in:
  - Acute care hospitals
  - Acute psychiatric hospitals
  - Correctional facility hospitals

# You need two doses of the current vaccines to get the best protection

- The first dose primes the immune system, and the second dose strengthens the immune response
- You need to get the same kind of vaccine for both doses
- When you get the first dose, make sure you know when and how to get the second one.
- If you are late getting the 2<sup>nd</sup> dose, you don't need to start over



## **Side-effects**

- May get side-side effects, especially after the 2nd dose. More common in younger people
  - Fever and muscle aches
  - Headache
  - Feeling tired
  - Sore or red arm
- Side effects are generally short-lived.
- Side effects indicate a good immune response
- It is important to return for second dose, even if the first dose has unpleasant side effects



## If you have already had COVID-19, it is recommended that you get the vaccine

- We don't yet know how long you are protected after you have had COVID-19, but we do know that you can get COVID-19 more than once.
   It is important to have the vaccine to strengthen your immunity
- It is safe to get the vaccine after getting COVID-19
- Wait until your isolation period is over to protect healthcare workers and other people who are getting their vaccines
- Wait 90 days if you had monoclonal antibody treatment for COVID-19



# The vaccine will <u>not</u> cause you to test positive on a COVID-19 PCR or antigen test

- Viral test (PCR, antigen, swab test)
- Look for current infection
- Vaccines won't cause you to test positive

### Antibody (blood) test Look for past infection

 You may test positive after getting a vaccine , because the vaccine teaches your immune system to make antibodies



## **Pregnancy and breastfeeding**

- The studies did not include women who were pregnant or breastfeeding
- We do know that pregnant women are more likely to get sick if they get COVID-19
- Some pregnant women work in jobs that put them at high risk of getting COVID-19
- Women are advised to discuss the risks and benefits of being vaccinated with their doctor



## People with weak immune systems

- The studies did not include people with weak immune systems
- We don't know how well the vaccine will work in these people.
  - They are at higher risk of getting COVID-19 and more likely to become very ill
  - They are advised to talk to their doctor
- The studies <u>did</u> include people with stable HIV and found that the vaccine was as safe and effective as for everyone else



## Allergies and severe allergic reaction (anaphylaxis)

- The COVID-19 vaccines contain mRNA, lipids, salts, sugars and buffers
  - Neither vaccine contain eggs, gelatin, latex, or preservatives
- There is a small risk of severe allergic reaction with any vaccine
- People who have had an allergic reaction to a vaccine, injectable therapy, polyethylene glycol (PEG), or polysorbate should talk to their doctor
- People who are allergic to other things (e.g. food, pets, venom, pollen) or a family history of allergies can be vaccinated

Information may change - check the latest guidance and talk to your doctor <u>cdc.gov/coronavirus/2019-ncov/vaccines/safety/allergic-reaction.html</u>

## Flu vaccines and other vaccines

- It is important to get a flu vaccine to:
  - Avoid getting both infections at once
  - Avoid confusion between flu and COVID-19 and unnecessary isolation and quarantine
  - Help the healthcare system
- A COVID-19 vaccine should not be given within 2 weeks of other vaccines
  - This is so that the side effects from either vaccine are not confused



## **Other unknowns**

- Both the disease and the vaccines are new, and we are still learning more about them. We don't know:
  - How long the vaccines will protect us for
  - If vaccines prevent the virus being spread (or if they only stop us getting sick with COVID-19)
  - About using vaccines in children
- Vaccination will be closely monitored in order to:
  - Learn more about how well the vaccines work in different groups
  - Look for any rare side effects



## Beware of the myths ..... Get the facts!

Common myths:

- It was developed too fast
- It will kill more people than COVID-19
- It can give you COVID-19
- It can affect our genes.
- It contain dangerous chemicals
- It contains a microtchip that can be used to track my movements
- It is being pushed on people against their will.
- You can't trust the people who made these vaccines.
- Black and Latinx communities are being singled out to get the vaccine
- I don't need the vaccine if I already had COVID-19

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## Look out for scams



#### If someone says they can...

- Get you a special low-cost deal or get you the vaccine under the table
- Get you a place on a waiting list
- Sell you a vaccine or "miracle cures"

.....it's a scam!

#### Report a possible COVID-19 scam

Contact the LA County Department of Consumer and Business Affairs (DCBA): <u>dcba.lacounty.gov</u> or 800-593-8222 They can also help you try to get your money back

#### Protect your personal or financial information

If you get calls, texts, or emails, be careful what you share.



## Get reliable information

#### ph.lacounty.gov/coronavirus/vaccine



#### Sign up for the COVID-19 Vaccine Email Newsletter

To sign up for regular updates on the COVID-19 vaccine, or to access your subscriber preferences, please enter your email address below.

*Email Address	
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Submit

Information and Resources

Vaccines play an important role in keeping us healthy. They protect us from serious and sometimes deadly diseases and save millions of lives each year. They use the body's natural immune system to recognize germs and fight off infection.

#### The safety of the COVID-19 vaccine is a top priority.

Many COVID-19 vaccines are being developed and several are being tested in large-scale clinical trials in the United States. Vaccines are being developed as fast as possible, but all the typical stages of the process are still being followed. No development or testing stages have been skipped.

In November two companies, Pfizer and Moderna announced the results of studies on their new vaccines. The studies were large – altogether 72.000 volunteers took part. In the studies half the volunteers got the vaccine while the other half got salt water. This method allowed



Frequently Asked Questions (FAQs)

subscriber preferences, please enter your email address below.

Email Address

Submit

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insurance companies. People without health

# Continue to take steps to stop the spread

While you wait for a vaccine and <u>even after</u> you are vaccinated it is important to:

- Wear a face covering
- Avoid close contact and crowded spaces
- Wash your hands often
- Clean and disinfect frequently touched surfaces
- Follow isolation and quarantine guidance



Getting 'Back to Normal' Is Going to Take **All of Our Tools** 

If we use all the tools we have, we stand the best chance of getting our families, communities, schools, and workplaces "back to normal" sooner:



