COVID-19 Vaccination
Disclaimer

- Information about COVID-19 and vaccination changes frequently.
- This presentation was current as of 4/27/21.
- It only includes information about the vaccines that are currently available in the USA.

For up-to-date information please visit:

www.cdc.gov/vaccines/covid-19
VaccinateLACounty.com
COVID-19 Vaccine Overview

- Introduction
- How they work
- How they were developed
- Safety
- How vaccines are distributed
- Getting a vaccine

- Are there side effects?
- Does it work?
- How much does it cost?
- Is it safe?
Three Vaccines for COVID-19 are available in the US

**Pfizer**
- Age 16 and older
- mRNA
- 2 doses - 21 days apart

**Moderna**
- Age 18 and over
- mRNA
- 2 doses - 28 days apart

**Johnson & Johnson (J&J)/Janssen**
- Age 18 and over
- DNA (viral vector)
- 1 dose

All 3 COVID-19 vaccines are safe and effective
How COVID-19 vaccines work

- Prepare our immune system to recognize and fight off germs.
- All 3 COVID-19 vaccines teach our cells to make harmless spike proteins (the crown-like spikes on the surface of the COVID-19 virus).
  - This does not harm our cells
- When we are vaccinated, the spike proteins show on the surfaces of our cells. Our immune system sees them and knows that they don’t belong there. It responds by:
  - Making antibodies
  - Preparing our immune cells to respond to future infection
- If we ever get the COVID-19 virus, our immune system recognizes it by the spike proteins.
- It remembers how to destroy the virus, so that we don’t become sick.
mRNA COVID-19 vaccines

- Messenger RNA (mRNA) is genetic material that tells your body how to make proteins. Our bodies use mRNA to make proteins all the time.
- The vaccine is made of mRNA wrapped in oily bubbles (lipid nanoparticles/LNPs). These allow the mRNA to enter your cells and protect the mRNA.
- The mRNA teaches your cells how to make copies of the spike protein.
Viral Vector COVID-19 vaccine (Johnson & Johnson)

- Made of genetic instructions (DNA) inside a ‘viral vector’
- The viral vector is a harmless version of a common cold virus. It is used to carry the DNA into our cells.
- Our cells read the genetic material and make mRNA.
- The mRNA teaches our cells how to make copies of the spike protein.
Fast-tracking development while ensuring safety

- Developing a new vaccine usually takes years
- Scientists had a head start because they had already:
  - Studied other coronaviruses
  - Studied both mRNA and viral vector vaccines
- Government funding 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

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Phase 1
- 20-100 Healthy Volunteers

Phase 2
- Several Hundred Volunteers

Phase 3
- 1000+ Volunteers

Phase 4
Vaccine is authorized

Some of the steps were done at the same time instead of one after another
Manufacturing and Authorization

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

Before authorization

- Safety data reviewed by independent medical and public health experts:
  - Made recommendations to Food and Drug Administration (FDA) & Centers for Disease Control and Prevention (CDC)
- FDA issues an emergency use authorization (EUA)
  - Allows use only when the expected benefits outweigh potential risks

After authorization

- Continued safety monitoring (FDA & CDC):
  - Identify any rare side effects
  - Investigate any possible problems
- Use existing vaccine monitoring systems to monitor
- Plus, extra monitoring systems just for COVID-19 vaccines:
  - V-safe, a new text message app
  - Following up people in the studies
  - Registry for pregnant women

3/14/21
Johnson & Johnson Vaccine Pause

- 4/13/21-4/23/21: FDA and CDC recommended a pause in the use of J&J
  - 6 women in the US developed an unusual type of blood clot with a low platelet count 6-13 days after they received the vaccine.
  - After pause with active surveillance, additional 9 cases identified

- These cases are very rare – 7 cases/million in women receiving doses of the J&J vaccine have been given in the US

- The pause was recommended out of an abundance of caution to
  - Give scientists a chance to review the data and learn more
  - Prepare doctors to recognize and treat this rare condition

Pause lifted 4/23. FDA included additional warning added in Emergency Use Authorization for both providers and patients about risks associated with vaccine for blood clots.
The vaccine is now available to everyone age 16 and over!

- People age 16 & 17 can only get Pfizer vaccine.

Vaccine is free for everyone, insurance is not required.
Anyone can get the vaccine, regardless of immigration status.

- It is your right to get a vaccine.
- Getting a COVID-19 vaccine does not affect your immigration status.
COVID-19 Vaccine Side-effects

**Common side effects include:**
- Arm pain, redness, or swelling
- Fever, chills, muscle aches
- Headache, Feeling tired
- Nausea

- Side-effects are signs that your immune system is building protection
  - Not everyone gets them

- They usually happen in the first 2 days
  - For mRNA vaccines, more common after the 2nd dose

- May affect your ability to do daily activities
  - but should feel better within a day or two
It is recommended that you get vaccinated even if you have already had COVID-19

Why?

- Do not know how long you are protected after you have had COVID-19
- You can get COVID-19 more than once
- Vaccine:
  - Is safe, even after COVID-19 infection
  - Strengthens your immunity
- If you currently have COVID-19:
  - Wait at least until your isolation period is over to avoid risk of spreading it to others
- Wait 90 days if you had monoclonal antibody or convalescent plasma treatment for COVID-19

3/14/21
Pregnancy

- Pregnant women who get COVID-19 are more likely to get sick. They may also be more likely to get pregnancy complications like preterm birth.
- Deeply personal decision, but all current data involving hundreds of thousands of women suggest that vaccine is safe for pregnancy and future fertility.
Pregnancy and COVID-19 Vaccination

- Pregnant women can receive any available vaccine
- Pregnant women may choose to get vaccinated:
  - Personal decision
  - May want to talk it through with their doctor first
- Many pregnant women who have received the vaccine are being monitored and so far, no safety concerns have been identified
People with weak immune systems

- People with weak immune systems:
  - Are at higher risk of getting very sick from COVID-19
    We do not know how well the vaccines will work for them, but vaccination is strongly recommended

- The vaccine studies included some people with weak immune systems, such as cancer and stable HIV.
  - Side effects were not different

- Can get any of the 3 vaccines
  - Advised to talk to their doctor about the best time to get vaccinated
Allergies and severe allergic reaction (anaphylaxis)

- The COVID-19 vaccines do not contain eggs, gelatin, latex, or preservatives
- Small risk of severe allergic reaction with any vaccine
- Talk to your doctor if you have had an allergic reaction to a:
  - Vaccine
  - Injectable therapy
  - Polyethylene glycol (PEG)
  - Polysorbate
- People who are allergic to other things (e.g., oral medication, food, pets, pollen) or who have a family history of allergies can be vaccinated
- Everyone is observed for allergic reactions after getting a COVID-19 vaccine

Information may change
Check the latest guidance and talk to your doctor
When you are considered to be fully vaccinated

- People are considered fully vaccinated:
  - 2 weeks after their second dose in a 2-dose series, or
  - 2 weeks after a single-dose vaccine

- If it has been less than 2 weeks since your shot, or if you still need to get your second dose, you are NOT fully protected.

- Keep taking all prevention steps until you are fully vaccinated.
Get reliable information

Los Angeles County Department of Public Health:
• Website
  • English: VaccinateLACounty.com
  • Spanish: VacunateLosAngeles.com
• Social media: @lapublichealth

CDC:
- www.cdc.gov/vaccines/covid-19
Summary

- We have 3 excellent vaccines that are safe and effective
- If you do get exposed to COVID-19, all 3 vaccines can prevent you from getting sick, missing work, or ending up in the hospital

Vaccines protect us, our families, our co-workers, and our communities