COVID-19 Vaccine Implementation in Patients with Chronic Obstructive Pulmonary Disease

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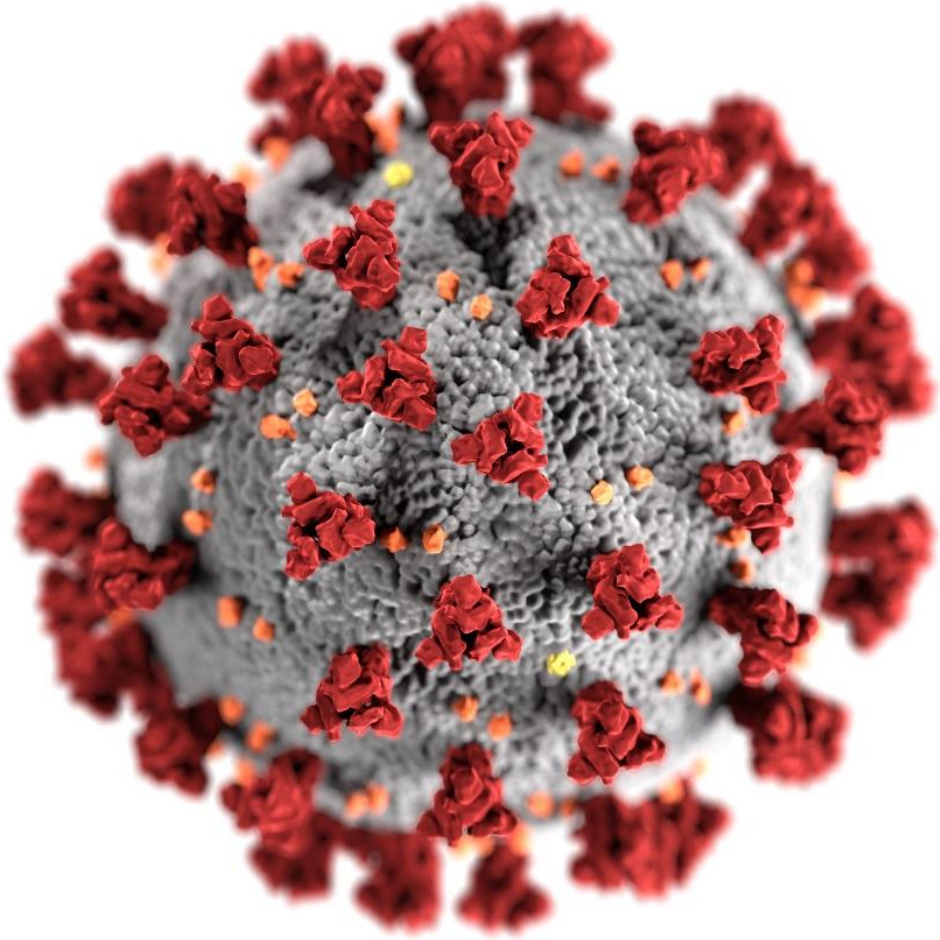


April 2021

cdc.gov/coronavirus

Overview

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/specific-groups.html

- COVID-19 basics
- Chronic obstructive pulmonary disease and COVID-19
- What should you know about COVID-19 vaccines
  - Safety
  - Vaccines are effective
- Getting vaccinated
  - What to expect, what is v-safe
- Supporting your community

What is Known About COVID-19?

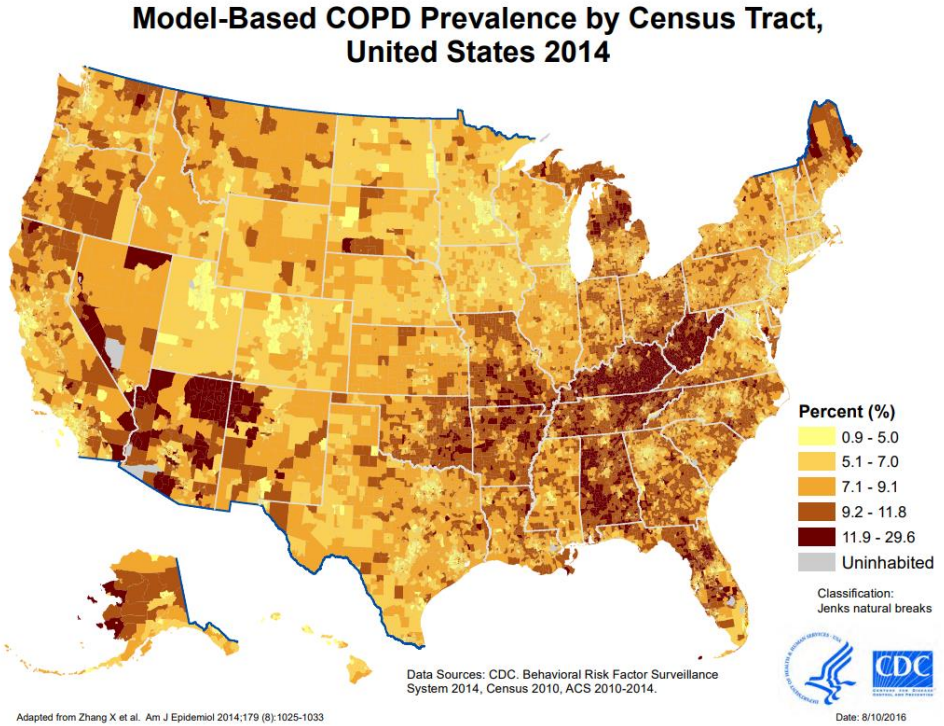
- Infection with SARS-CoV-2, the virus that causes COVID-19, can result in a range of illness, from no symptoms at all to mild symptoms to severe illness and death.
- We don’t know how SARS-CoV-2 will affect each person.
- Some people, such as adults 65 and older or people with certain medical conditions, are more likely than others to become severely ill.




https://www.cdc.gov/coronavirus/2019-ncov/vaccines/toolkits/community-organization.html

Chronic Obstructive Pulmonary Disease (COPD)

- Group of diseases causing airflow blockage and breathing-related problems
- ~15.7 million Americans diagnosed
- Emphysema and chronic bronchitis
- Groups more likely to report COPD:
  - Women
  - Age ≥65 years
  - American Indians/Alaska Natives and Multiracial Non-Hispanics
  - Current or former smokers
  - History of asthma



CDC - Data and Statistics - Chronic Obstructive Pulmonary Disease (COPD)

1. Zhang X, Holt JB, Lu H, et al. Multilevel regression and poststratification for small area estimation of population health outcomes: a case study of chronic obstructive pulmonary disease prevalence using BRFSS. *Am J Epidemiol.* 2014;179(8):1025–1033.

CDC - Basics About COPD - Chronic Obstructive Pulmonary Disease (COPD) www.cdc.gov/copd/basics-about.html

Conditions Associated with Severe COVID-19

- **Cancer**
- **Chronic kidney disease**
- **Chronic lung disease (COPD, asthma (moderate-to-severe), interstitial lung disease, cystic fibrosis, and pulmonary hypertension)**
- **Dementia or other neurological conditions**
- **Diabetes (type I or type 2)**
- **Down syndrome**
- **Heart conditions (heart failure, coronary artery disease, or cardiomyopathies)**
- **HIV infection**
- **Immunocompromised state (weakened immune system)**
- **Liver disease**
- **Overweight and obesity**
- **Pregnancy**
- **Sickle cell disease or thalassemia**
- **Smoker (current or former)**
- **Solid organ or blood stem cell transplant**
- **Stroke or cerebrovascular disease**
- **Substance use disorders**

*List is not exhaustive and only includes conditions with sufficient evidence to draw conclusions about risk.
*This list will change as we learn more.

Certain Medical Conditions consumer page www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

Risk for COVID-19 Infection, Hospitalization, and Death By Race/Ethnicity

Updated Mar. 12, 2021 Print

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases[1]	1.7x	0.7x	1.1x	1.3x
Hospitalization[2]	3.7x	1.0x	2.9x	3.1x
Death[3]	2.4x	1.0x	1.9x	2.3x

Race and ethnicity are risk markers for other underlying conditions that affect health including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., frontline, essential, and critical infrastructure workers.

https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html

Risk for COVID-19 Infection, Hospitalization, and Death By Age Group

Updated Feb. 18, 2021 Print

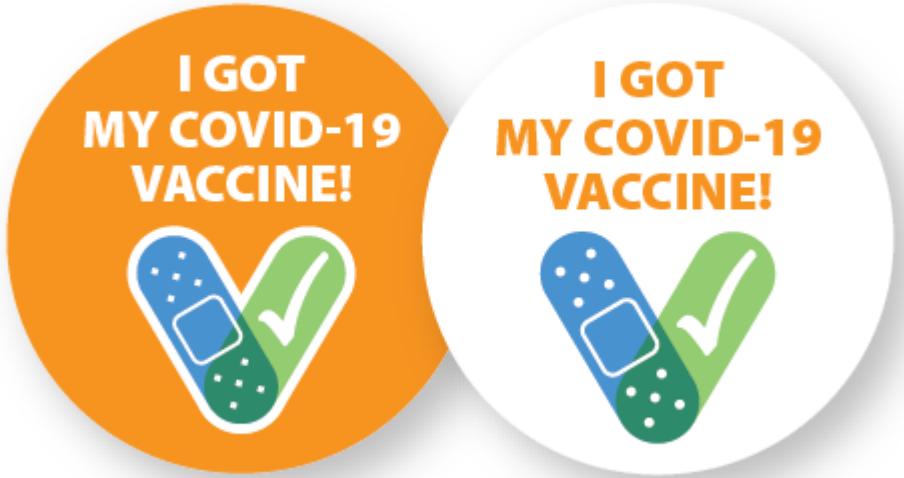
Rate ratios compared to 5-17 year olds[1]

	0—4 years	5—17 years	18—29 years	30—39 years	40—49 years	50—64 years	65—74 years	75—84 years	85+ years
Cases[2]	<1x	Reference group	3x	2x	2x	2x	2x	2x	2x
Hospitalization[3]	2x	Reference group	7x	10x	15x	25x	35x	55x	80x
Death[4]	2x	Reference group	15x	45x	130x	400x	1100x	2800x	7900x

All rates are relative to the 5—17-year age category. Sample interpretation: Compared with 5—17-year-olds, the rate of death is 45 times higher in 30—39-year-olds and 7,900 times higher in 85+-year-olds. Compared with 18—29-year-olds, the rate of hospitalization is 8 times higher in 75—84-year-olds (55 divided by 7 equals 7.9).

https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html

What Can You Do?



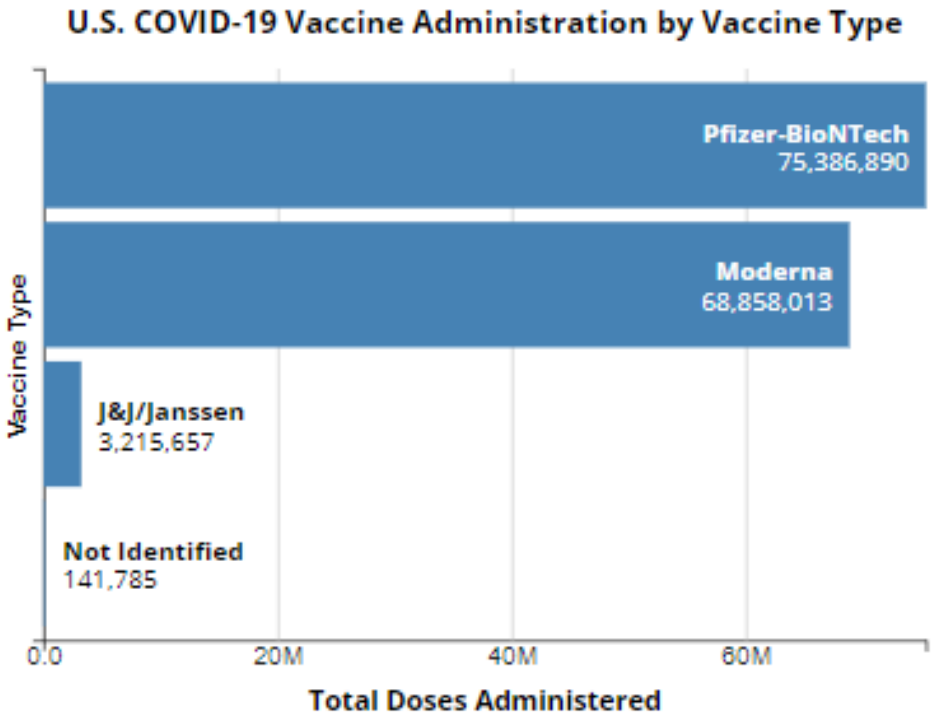
- Continue to protect yourself.
  - Wear a mask over your nose and mouth.
  - Stay at least 6 feet away from people who don't live with you.
  - Avoid crowds and poorly ventilated spaces.
  - Wash your hands often.

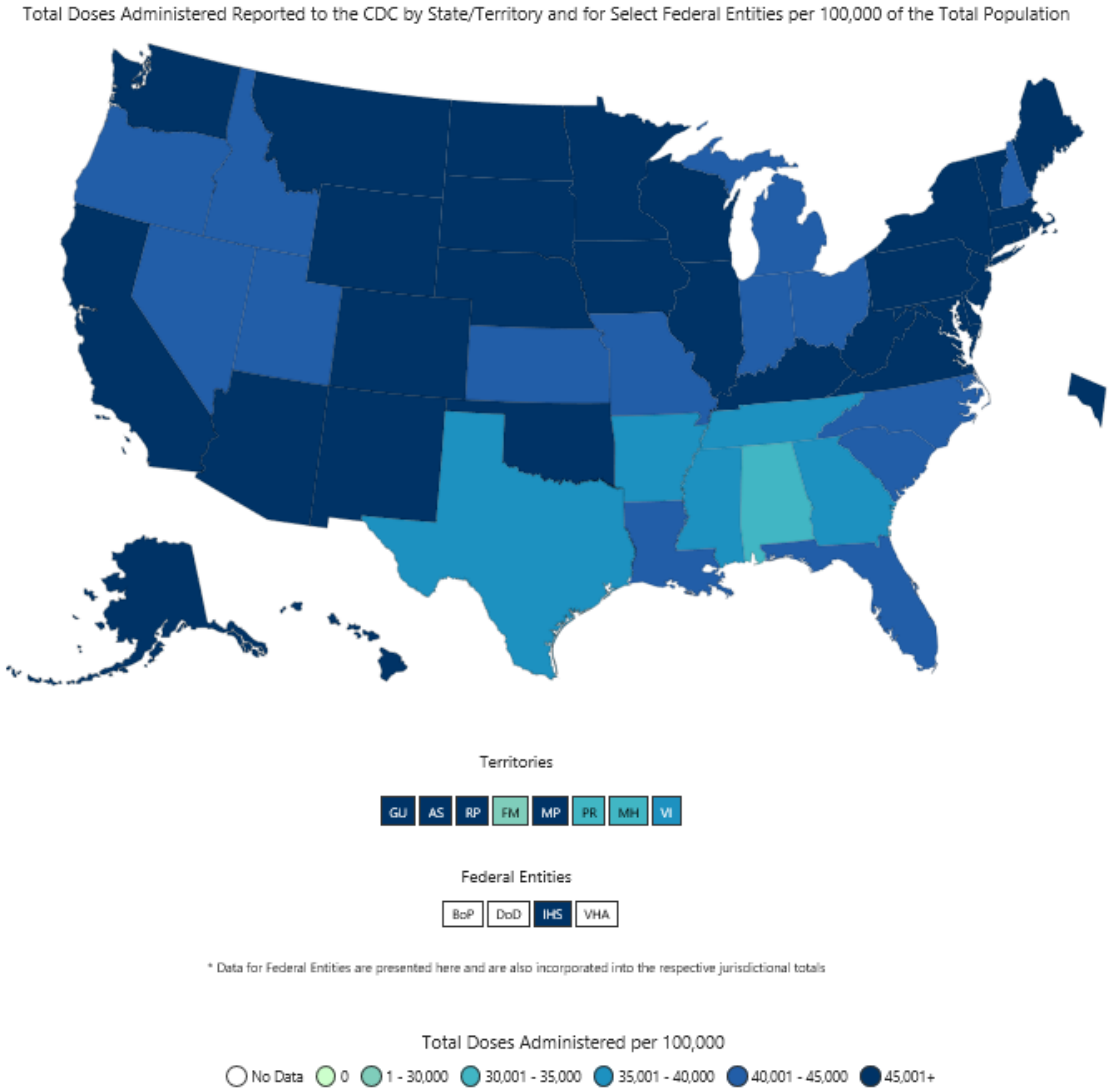
- Get vaccinated with a COVID-19 vaccine when one is available to you.

COVID-19 Vaccines Administered

As of March 30, 2021

Total Vaccine Doses Administered: 147,602,345



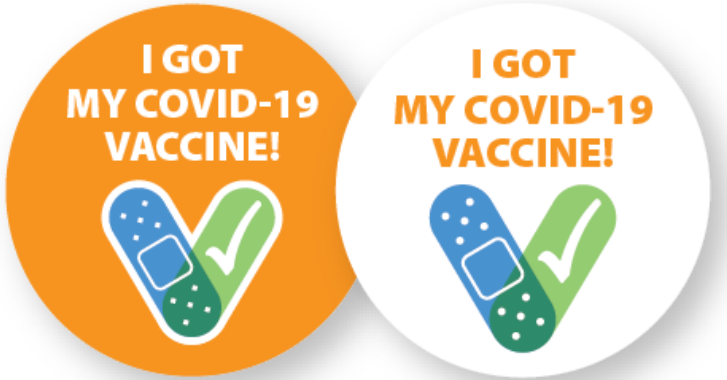


Available: https://covid.cdc.gov/covid-data-tracker

Currently Authorized Vaccines

- Pfizer-BioNTech
- Moderna

mRNA vaccine
Require two doses



- Johnson & Johnson/Janssen

Viral vector vaccine
Requires one dose

- All three vaccines were tested in tens of thousands of adults from diverse backgrounds, including older adults and communities of color.
- All of the available vaccines have been proven effective at preventing serious illness, hospitalization, and death from COVID-19 disease.
- It is unknown how long protection from vaccines might last.

https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-conclude-phase-3-study-covid-19-vaccine
https://investors.modernatx.com/news-releases/news-release-details/modernas-covid-19-vaccine-candidate-meets-its-primary-efficacy

Safety of COVID-19 Vaccines Is a Top Priority

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

Before Authorization

- **FDA** carefully reviews all safety data from clinical trials.
- **ACIP** reviews all safety data before recommending use.

After Authorization

- **FDA** and **CDC** closely monitor vaccine safety and side effects. There are systems in place that allow CDC and FDA to watch for safety issues.

VAERS Vaccine Adverse Event Reporting System
www.vaers.hhs.gov

v-safe℠ after vaccination health checker

v-safe: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/vsafe.html

All COVID-19 Vaccines Currently Available Are Safe and Effective

- Millions of people in the US have received COVID-19 vaccines under the most intense safety monitoring in US history.
- All COVID-19 vaccines in use and development are being carefully evaluated in clinical trials and will only be authorized or approved if the benefits outweigh potential risks.
- Getting vaccinated can help protect those around you, especially those at increased risk for severe illness.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/vaccine-benefits.html

COVID-19 Vaccination is a Safer Way to Build Protection

- Getting the virus that causes COVID-19 may offer some natural protection, known as an antibody or immunity. But experts don’t know how long this protection lasts.
- The risk of severe illness and death from COVID-19 far outweighs any benefits of natural immunity.
- COVID-19 vaccination will help protect you by building immunity without the risk of severe illness.

Getting Vaccinated: What Should You Know?

- When you receive your vaccination, you should also receive:
  - A vaccination card that tells you which vaccine you received, the date you received it, and where you received it
  - A fact sheet that tells you more about the vaccine
- You will be monitored for at least 15 minutes after vaccination.
- You can enroll in v-safe.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/expect.html
www.cdc.gov/vsafe.

Active Safety Monitoring for COVID-19 Vaccines

- **V-safe** is a new CDC smartphone-based monitoring program for COVID-19 vaccine safety:
  - Uses text messaging and web surveys to check in with vaccine recipients after vaccination.
  - Participants can report any side effects or health problems after COVID-19 vaccination.
  - Includes active telephone follow-up by CDC for reports of significant health impact.

Possible Side-Effects After Getting a COVID-19 Vaccine

Common side effects:

On the arm where you got the shot:

- Pain
- Redness
- Swelling

Throughout the rest of your body:

- Tiredness
- Headache
- Muscle pain
- Chills
- Fever
- Nausea

You may consider:

To reduce pain and discomfort where you got the shot

- Apply a clean, cool, wet washcloth over the area.
- Use or exercise your arm.

To reduce discomfort from fever

- Drink plenty of fluids.
- Dress lightly.

It is not recommended you take over-the-counter medicine such as ibuprofen, aspirin, or acetaminophen before vaccination for the purpose of trying to prevent vaccine-related side-effects.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/expect/after.html

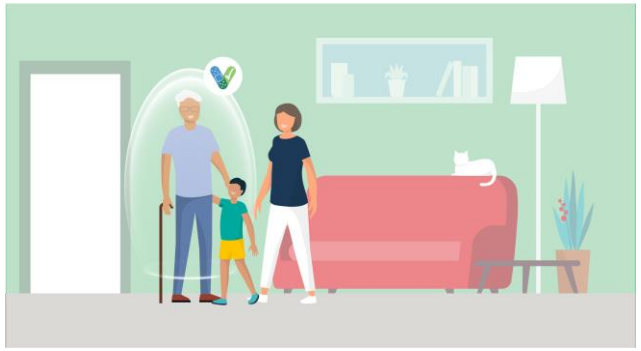
When to call the doctor

- If the redness or tenderness where you got the shot gets worse after 24 hours
- If your side effects are worrying you or do not seem to be going away after a few days

*If you get a COVID-19 vaccine and you think you may be having a severe allergic reaction after leaving the vaccination site, seek immediate medical care by calling 9-1-1.

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/expect/after.html

When You've Been Fully Vaccinated



- Fully vaccinated = 2 weeks after second dose of Pfizer-BioNTech and Moderna or 2 weeks after the Johnson & Johnson/Janssen one-dose vaccine
- You can:
  - Gather indoors with fully vaccinated people without a mask.
  - Gather indoors unmasked with unvaccinated people from ONE other household (unless they live with someone with increased risk of severe illness from COVID-19).

  If you've been around someone who has COVID-19, you don't need to stay away from others or get tested unless you have symptoms or live in a group setting.

When You've Been Fully Vaccinated | CDC www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html

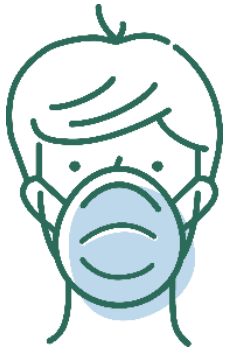
When You've Been Fully Vaccinated

- Take steps to protect yourself and others (masking, staying 6 feet apart, avoiding crowds and poorly ventilated spaces) whenever you are:
  - In public
  - Gathering with unvaccinated people from more than one other household
  - Visiting with an unvaccinated person at increased risk of severe illness or death or who lives with a person at increased risk
- Avoid medium or large-sized gatherings
- Watch for symptoms of COVID-19
- Follow guidance at your workplace

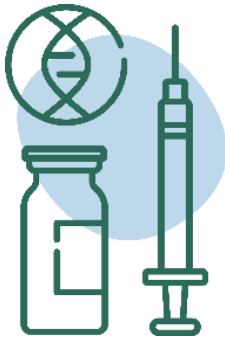
When You've Been Fully Vaccinated | CDC www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated.html

Key Facts about COVID-19 Vaccination

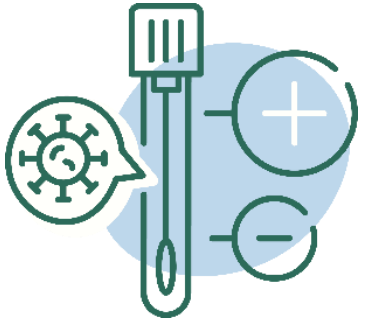
Getting vaccinated can help prevent you from getting sick with COVID-19



People who have already gotten sick with COVID-19 may still benefit from getting vaccinated



COVID-19 vaccines cannot give you COVID-19



COVID-19 vaccines will not cause you to test positive on COVID-19 viral tests*

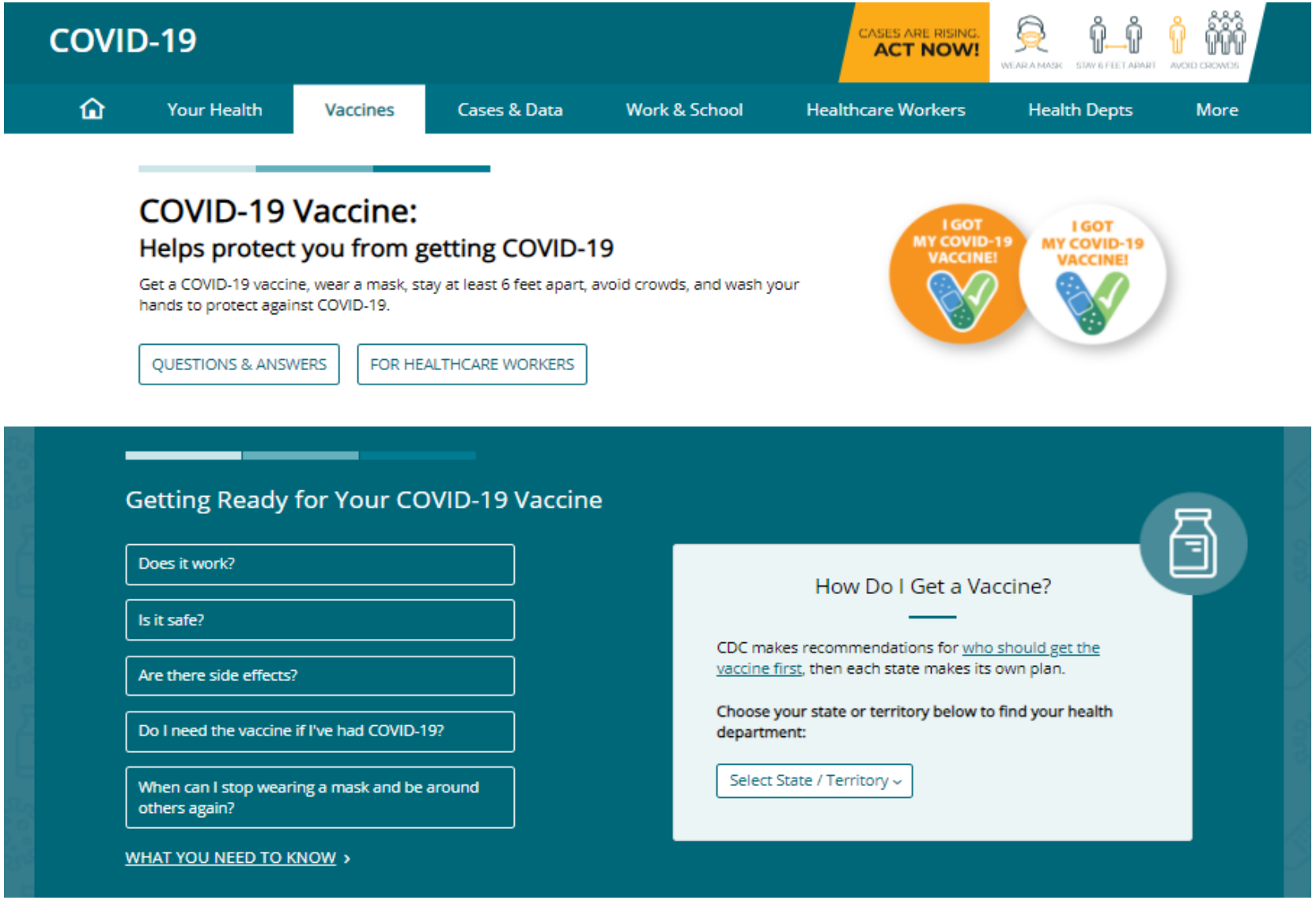
https://www.cdc.gov/coronavirus/2019-ncov/vaccines/about-vaccines/vaccine-myths.html

*https://www.cdc.gov/coronavirus/2019-ncov/hcp/testing-overview.html

Protect Yourself, Your Family, Your Friends, Your Coworkers, and Your Community—Get vaccinated

- Choose to get vaccinated when it is available to you.
- Participate in **v-safe** and help CDC monitor for any health effects after vaccination.
- Share your experience with coworkers, friends, and family.
- Know the basics about COVID-19 vaccines. Help answer questions from your family and friends.
- Show you received the vaccine by wearing a sticker or button prominently.

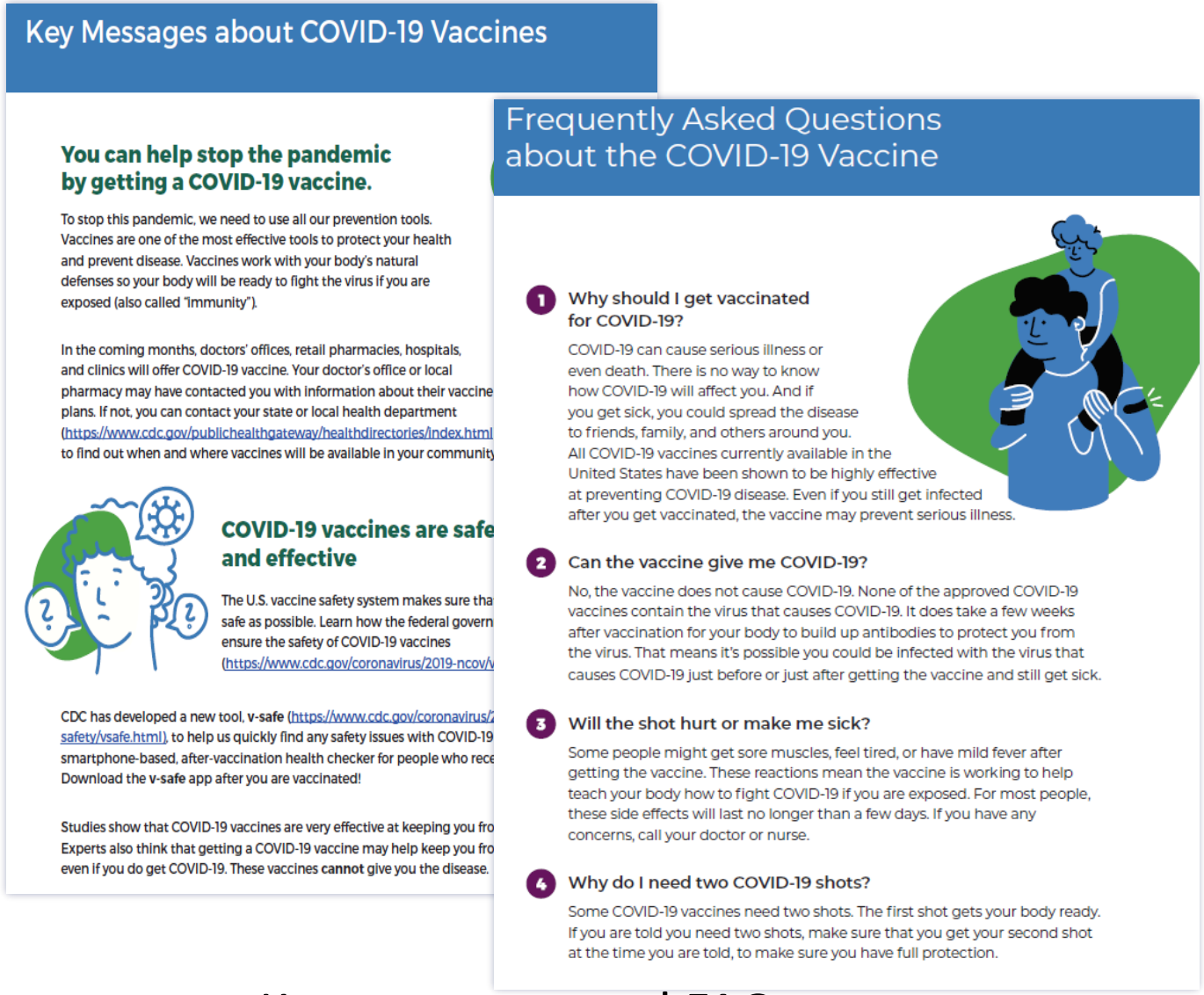
Where Can You Get More Information?



https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html

COVID-19 Vaccine Communication Toolkit Materials

Slides



Key messages and FAQs

https://www.cdc.gov/coronavirus/2019-ncov/vaccines/toolkits/community-organization.html

COVID-19 Vaccine Communication Toolkit Materials

Customizable COVID-19 Vaccine Content for Community-Based Organizations

Updated Feb. 12, 2021 Languages Print

Community-Based Organizations and Leaders can use the following materials to encourage COVID-19 vaccination. You can add your own logos and customize the text to make it appropriate for your organization.

On this Page

Introductory letter

This letter can be sent to branches, chapters, or affiliates to encourage review and use of the toolkit materials.

Dear Community-Based Organization Leader:

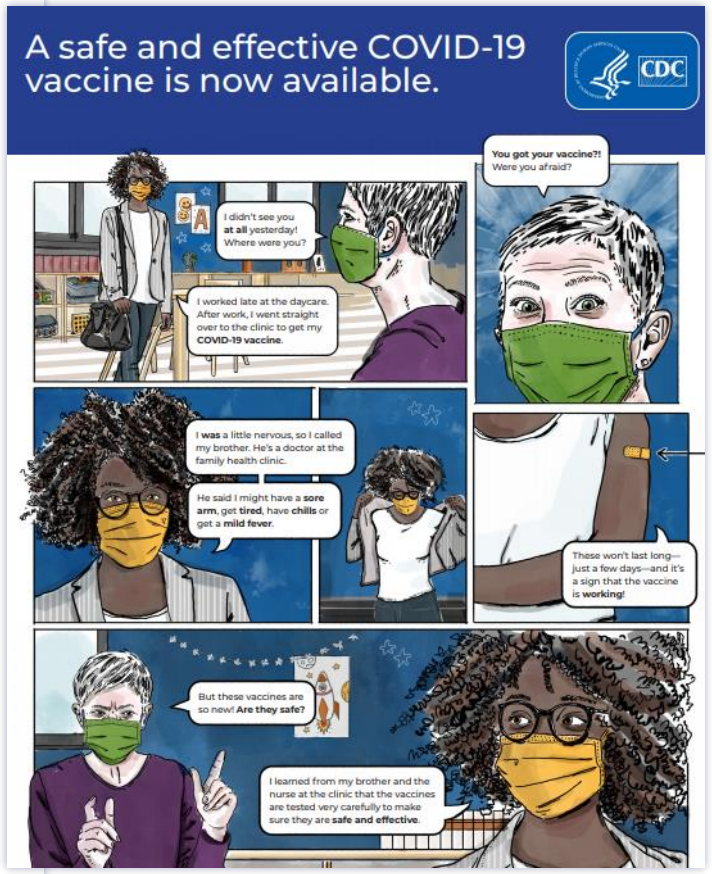
Soon the communities you serve will have access to vaccines to help protect them against COVID-19. All COVID-19 vaccines currently available in the United States have been shown to be highly effective at preventing COVID-19. Vaccination is one of our many important tools to help stop the pandemic.

Some community members may be hesitant to get the vaccine. Before they agree to be vaccinated, they will want answers to their questions about the process for developing these vaccines and information about safety and effectiveness. Your organization can help inform communities about the vaccines and help people feel confident when they decide to get vaccinated.

This COVID-19 Vaccine Communication Toolkit for Community-Based Organizations was created by the Centers for Disease Control and Prevention (CDC) to help you provide clear, consistent, and credible information about COVID-19 vaccines to your communities. We encourage you to review and customize these materials.

- Letter to members: Customize this letter about COVID-19 vaccination to send to your members.
- Newsletter content: This short newsletter-style blurb can be widely distributed to share information on COVID-19 vaccines.
- Key messages: Use these key messages about COVID-19 vaccine to educate your communities.
- Frequently Asked Questions (FAQs): Use these to help answer questions about COVID-19 vaccine in your communities.
- Slide deck: These basic slides about COVID-19 vaccines are for virtual town halls or other informational meetings within your communities. You can use all or part of the set or also include

Customizable Content



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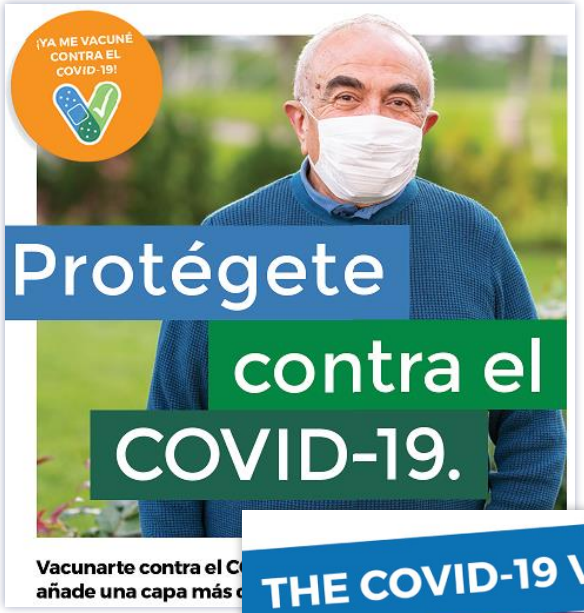
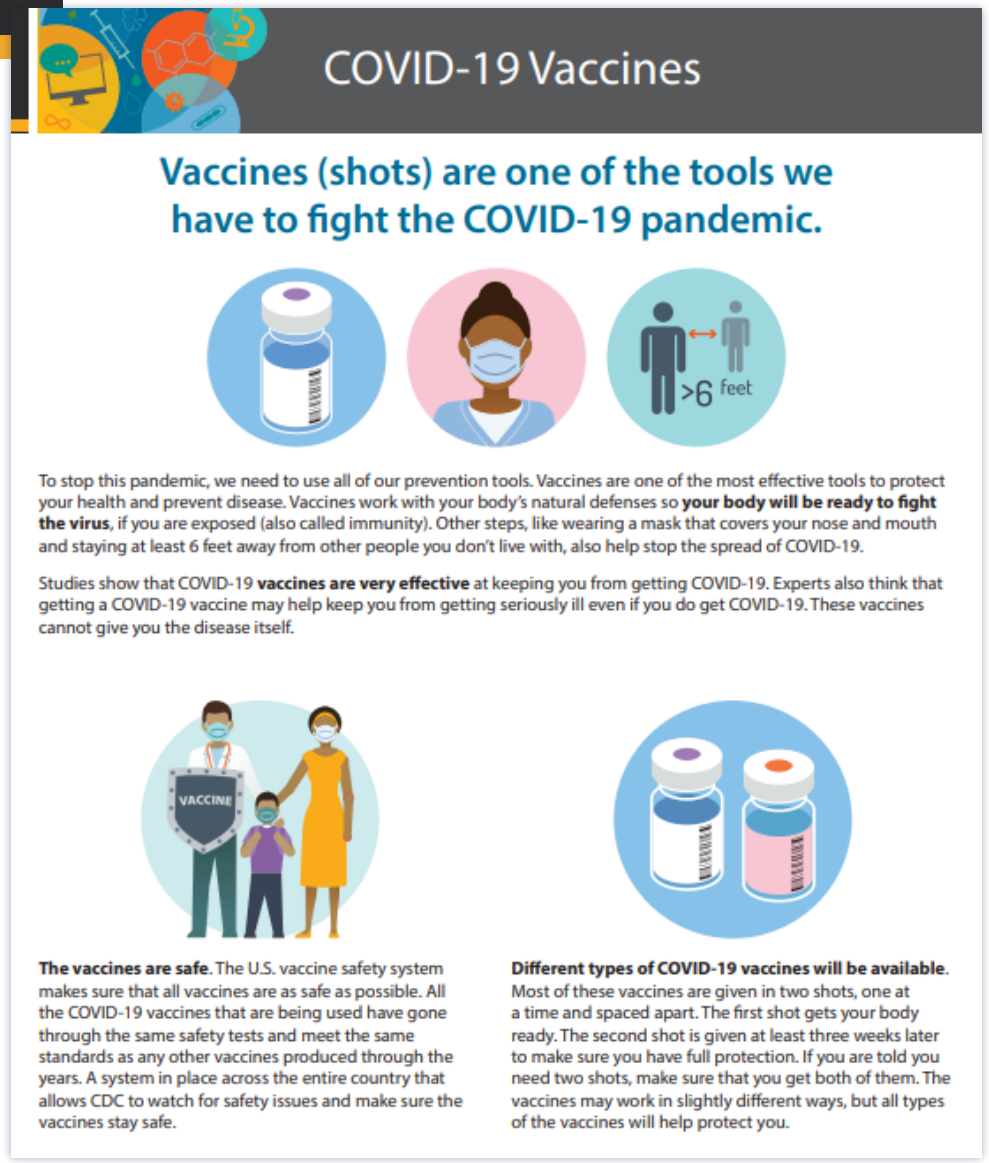


Social Media

COVID-19 Vaccine Communication Toolkit Materials



COVID-19 Vaccines

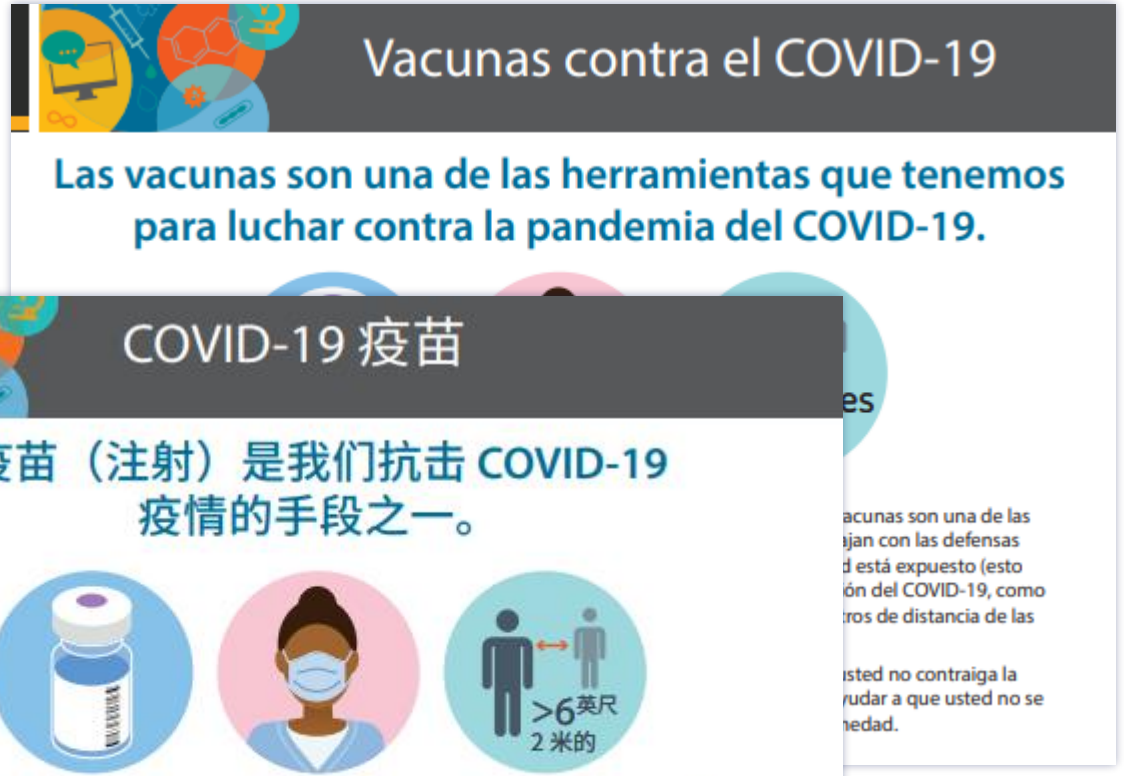
Vaccines (shots) are one of the tools we have to fight the COVID-19 pandemic.

To stop this pandemic, we need to use all of our prevention tools. Vaccines are one of the most effective tools to protect your health and prevent disease. Vaccines work with your body's natural defenses so **your body will be ready to fight the virus**, if you are exposed (also called immunity). Other steps, like wearing a mask that covers your nose and mouth and staying at least 6 feet away from other people you don't live with, also help stop the spread of COVID-19.

Studies show that COVID-19 **vaccines are very effective** at keeping you from getting COVID-19. Experts also think that getting a COVID-19 vaccine may help keep you from getting seriously ill even if you do get COVID-19. These vaccines cannot give you the disease itself.

The vaccines are safe. The U.S. vaccine safety system makes sure that all vaccines are as safe as possible. All the COVID-19 vaccines that are being used have gone through the same safety tests and meet the same standards as any other vaccines produced through the years. A system in place across the entire country that allows CDC to watch for safety issues and make sure the vaccines stay safe.

Different types of COVID-19 vaccines will be available. Most of these vaccines are given in two shots, one at a time and spaced apart. The first shot gets your body ready. The second shot is given at least three weeks later to make sure you have full protection. If you are told you need two shots, make sure that you get both of them. The vaccines may work in slightly different ways, but all types of the vaccines will help protect you.



Vacunas contra el COVID-19

Las vacunas son una de las herramientas que tenemos para luchar contra la pandemia del COVID-19.

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COVID-19 疫苗

疫苗（注射）是我们抗击 COVID-19 疫情的手段之一。

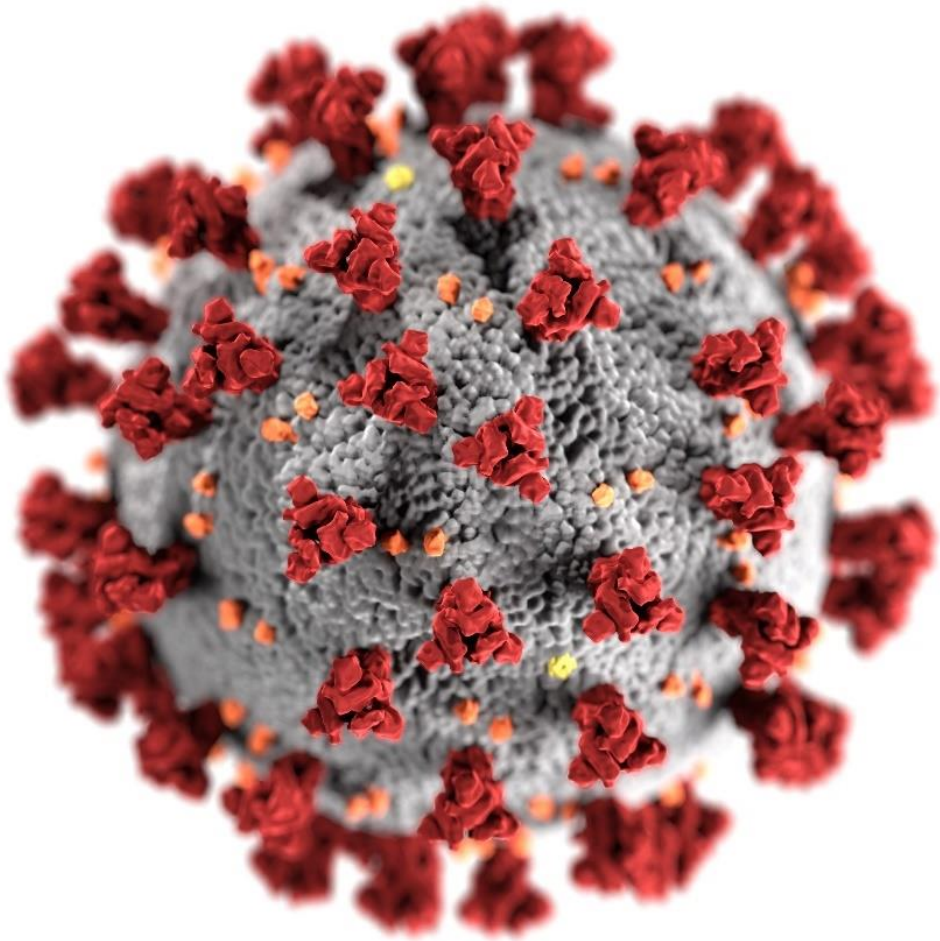
为了遏制疫情蔓延，我们需要使用所有可用的预防手段。疫苗是保护健康和预防疾病的最有效手段之一。疫苗将与您的身体自然防御系统一起工作，因此，如果您暴露在病毒下，**您的身体将准备好对抗病毒**（也称为免疫）。其他措施，如戴口罩遮住口鼻，与其他不住在一起的人保持至少 6 英尺的距离，也有助于阻断 COVID-19 的传播。

研究表明，COVID-19 **疫苗**在防止您感染 COVID-19 方面**非常有效**。专家还认为，即使您感染了 COVID-19，接种 COVID-19 疫苗也可以帮助您避免染上严重疾病。这些疫苗本身不能给您带来疾病。

Alternative Languages: Arabic | Spanish | Korean | Russian | Simplified Chinese | Tagalog | Traditional Chinese | Vietnamese

https://www.cdc.gov//coronavirus2019-ncov/vaccines/toolkits/community-organization.html

Share your voice



For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.