

COVID-19 Vaccines: What You Need to Know

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EMORY
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MEDICINE

Department of Medicine

Objectives

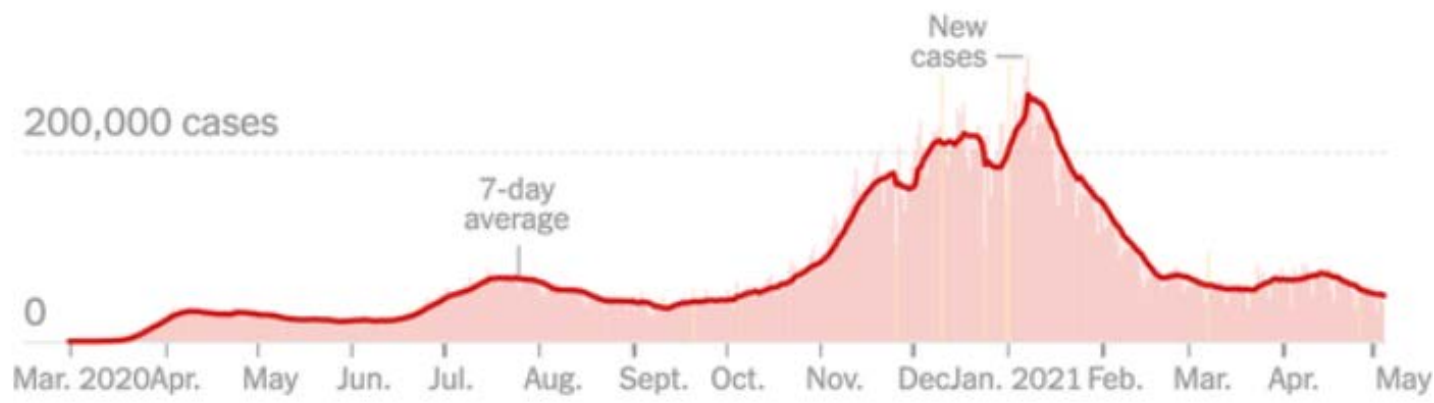
COVID-19 – Where are we now?

Discuss COVID-19 vaccine basics

Answer FAQs

Coronavirus in the U.S.: Latest Map and Case Count

New reported cases by day in the United States

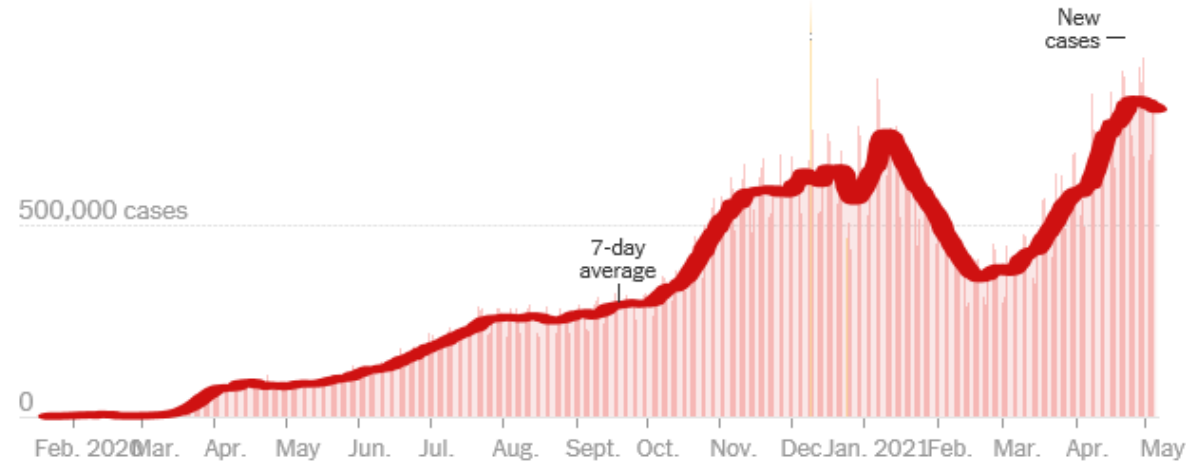


	TOTAL REPORTED	ON MAY 4	14-DAY CHANGE
Cases	32.5 million+	40,531	-26% →
Deaths	578,010	890	-2% →
Hospitalized		39,380	-11% →

Coronavirus World Map: Tracking the Global Outbreak

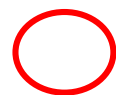
Updated May 6, 2021, 6:35 A.M. E.T.

U.S.A. World Health



	TOTAL REPORTED	ON MAY 5	14-DAY CHANGE
Cases	155.2 million ⁺	864,113	+2% →
Deaths	3.2 million ⁺	14,671	+9% →

■ Day with reporting anomaly. 14-day change trends use 7-day averages.



COVID-19 Vaccinations in the United States

Overall US COVID-19 Vaccine | Deliveries and Administration; Maps, charts, and data provided by CDC, updates daily by 8 pm ET[†]

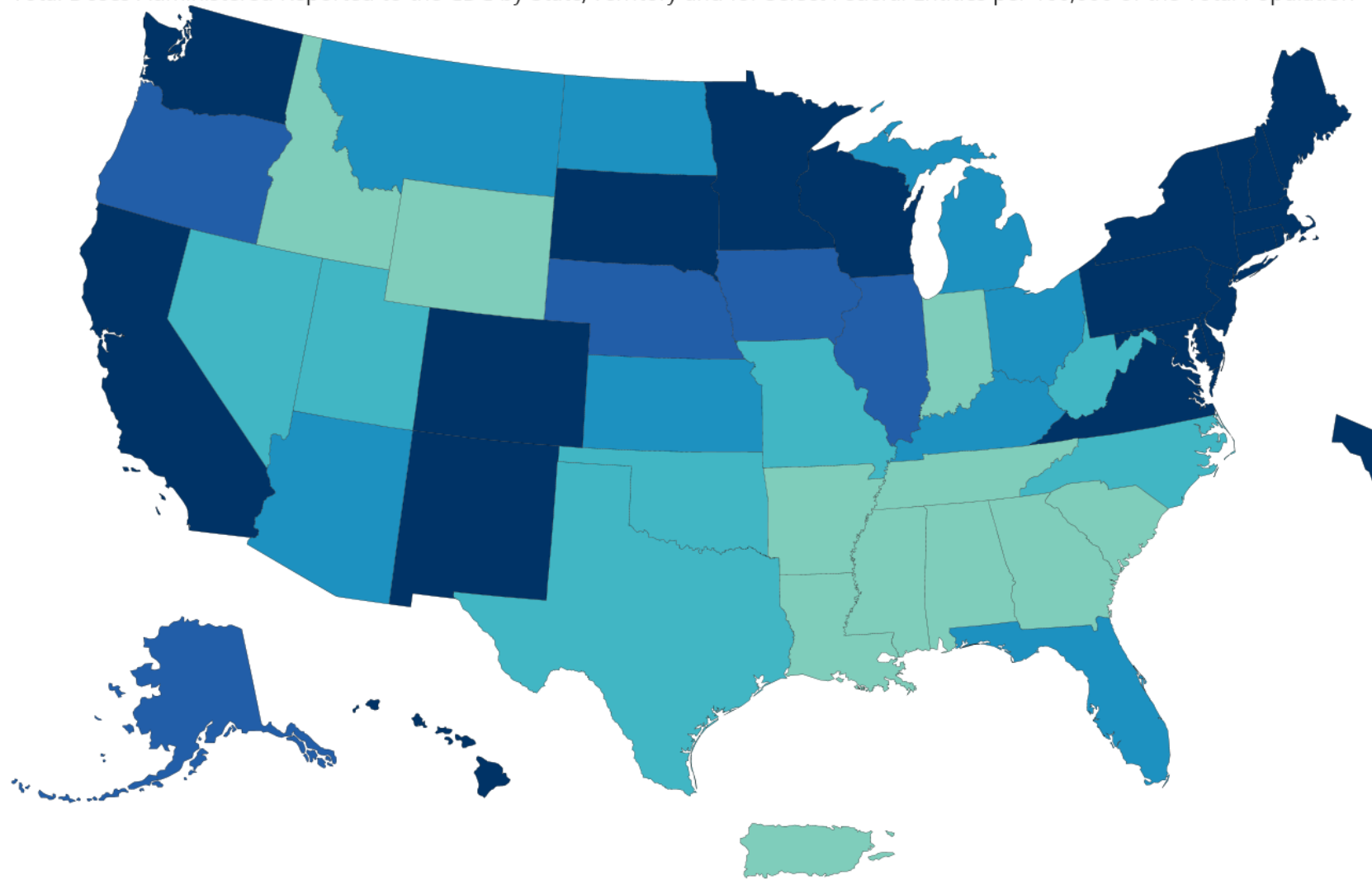
Represents all vaccine partners including jurisdictional partner clinics, retail pharmacies, long-term care facilities, dialysis centers, Federal Emergency Management Agency and Health Resources and Services Administration partner sites, and federal entity facilities.

Total Vaccine Doses		People Vaccinated		
		At Least One Dose	Fully Vaccinated	
Delivered	321,549,335	148,562,891	107,346,533	
Administered	249,566,820	44.7%	32.3%	
Learn more about the distribution of vaccines.		Population ≥ 18 Years of Age	146,335,135	106,535,363
		% of Population ≥ 18 Years of Age	56.7%	41.3%
		Population ≥ 65 Years of Age	45,425,228	38,356,900
		% of Population ≥ 65 Years of Age	83%	70.1%

About these data

CDC | Data as of: May 5, 2021 6:00am ET. Posted: Wednesday, May 5, 2021 1:42 PM ET

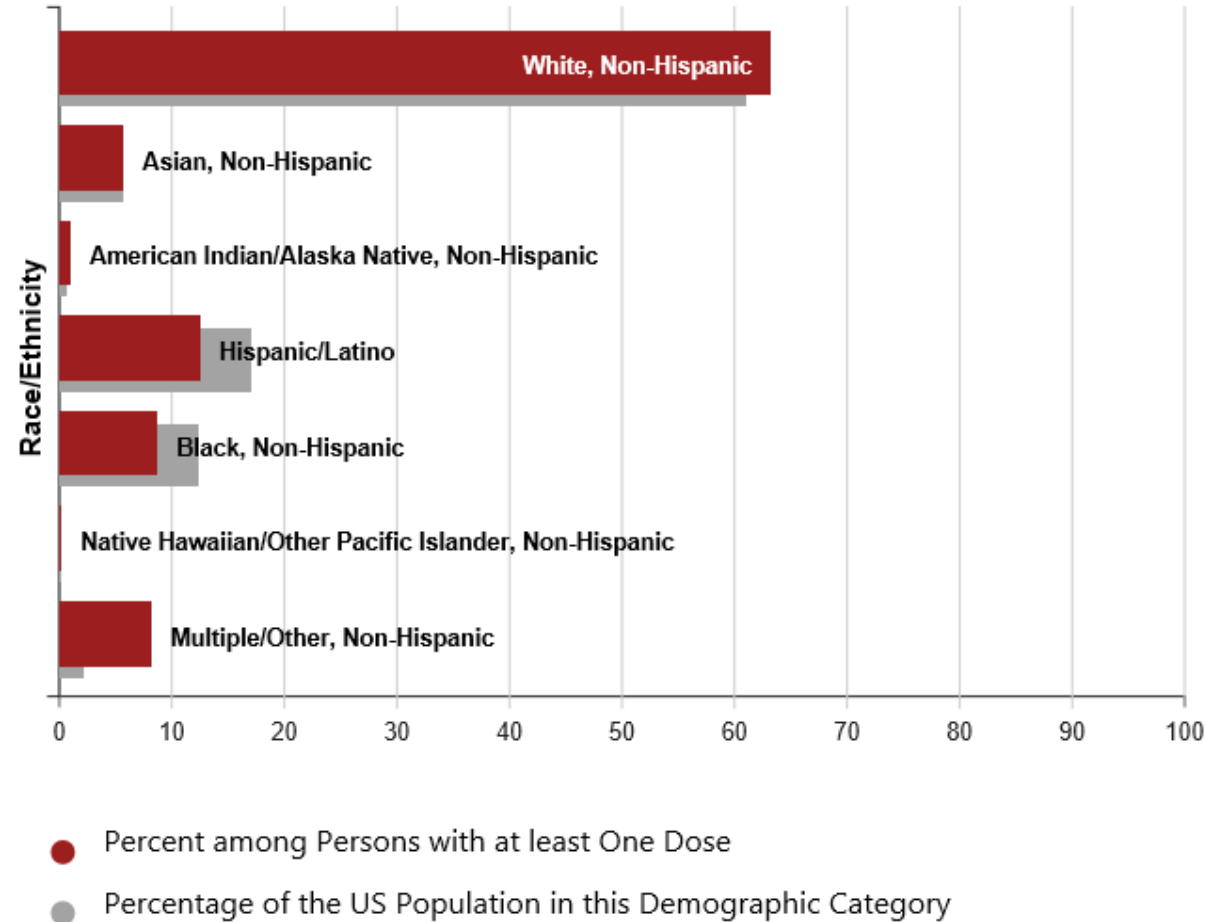
Total Doses Administered Reported to the CDC by State/Territory and for Select Federal Entities per 100,000 of the Total Population



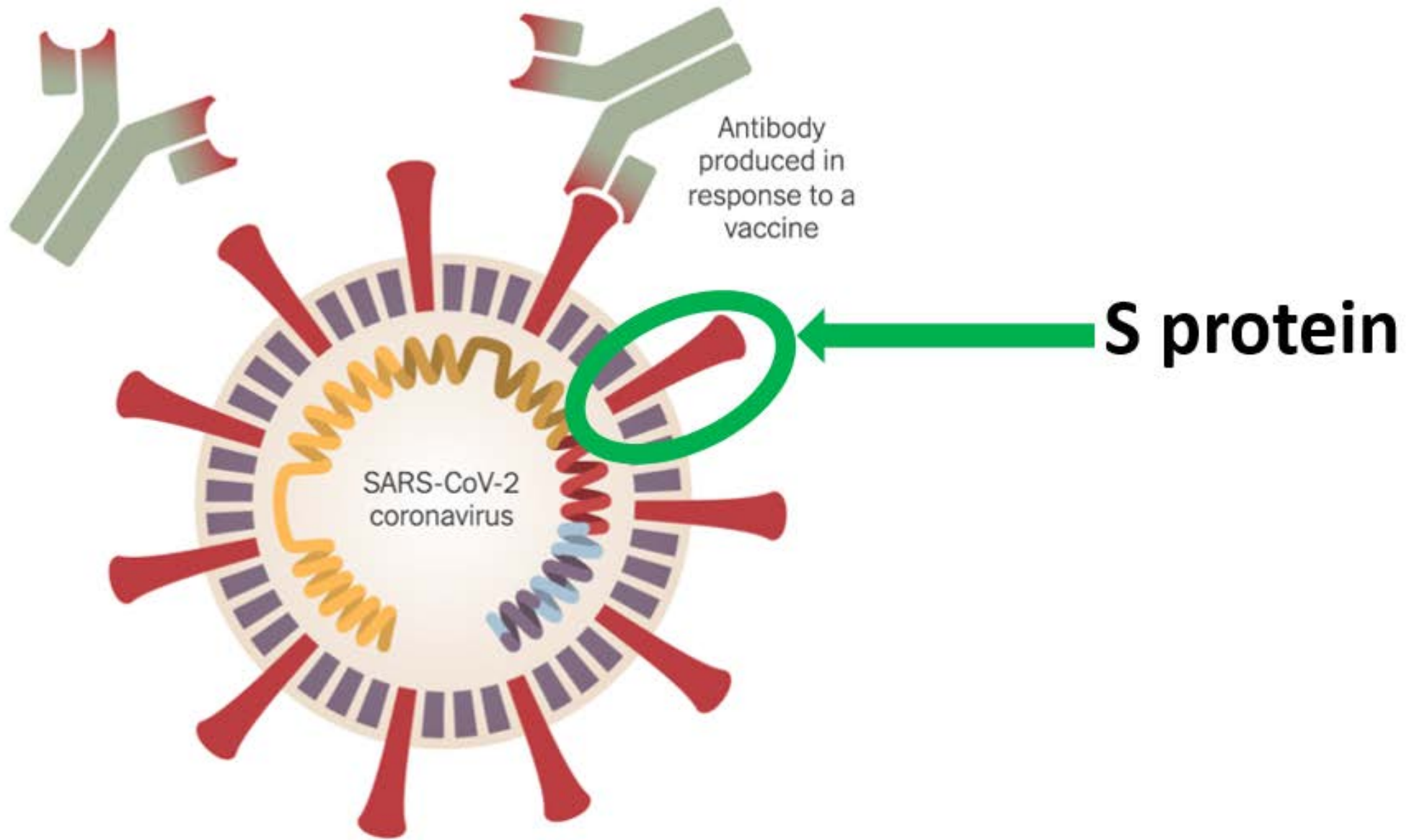
Total Doses Administered per 100,000

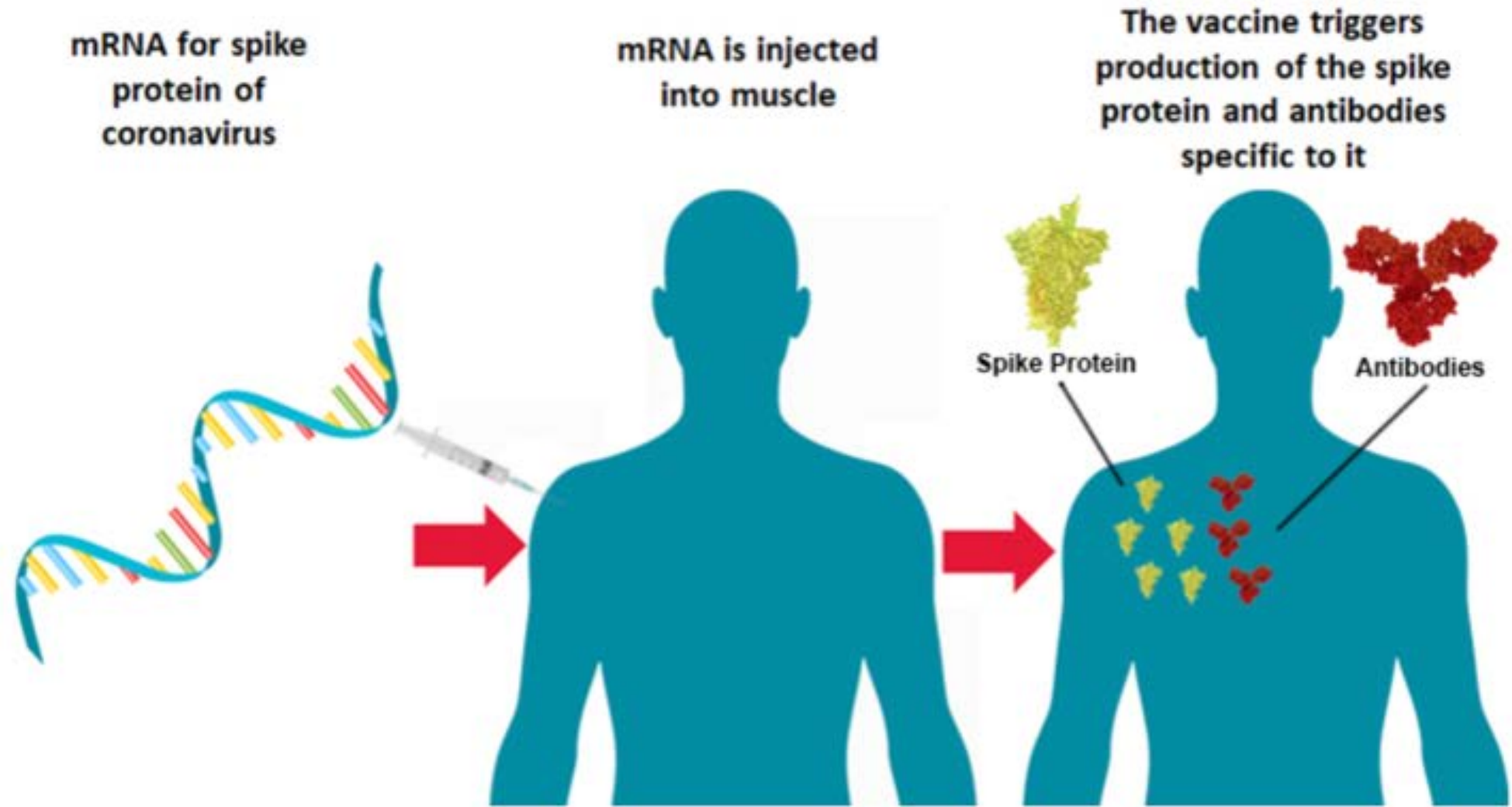
○ No Data ○ 0 ○ 1 - 65,000 ○ 65,001 - 70,000 ○ 70,001 - 75,000 ○ 75,001 - 80,000 ○ 80,001+

Data from 148,562,891 people with at least one dose administered. Race/Ethnicity was available for 82,328,374 (55.4%) people with at least one dose administered.



COVID-19 Vaccine: The Basics





Credit: NIH

**Two mRNA vaccines are available
(Pfizer or Moderna)**

One viral vector vaccine available (Johnson and Johnson)

How Viral Vector COVID-19 Vaccines Work

Understanding the virus that causes COVID-19.

Coronaviruses, like the one that causes COVID-19, are named for the crown-like spikes on their surface, called **spike proteins**. These **spike proteins** are ideal targets for vaccines.

What is a viral vector vaccine?

A viral vector vaccine uses a harmless version of a different virus, called a "vector," to deliver information to the body that helps it protect you.

How does the vaccine work?

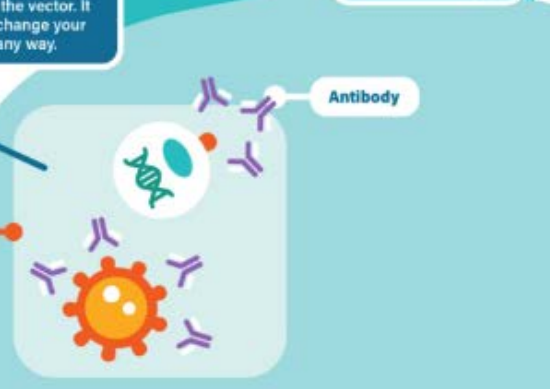
The vaccine teaches your body how to make copies of the **spike proteins**. If you are exposed to the real virus later, your body will recognize it and know how to fight it off.



The vaccine **DOES NOT** contain the virus that causes COVID-19 and cannot give you COVID-19. It also cannot make you sick from the virus that is used as the vector. It cannot change your DNA in any way.



When your body responds to the vaccine, it can sometimes cause tiredness, headache, muscle pain, nausea, or mild fever. These are normal signs the vaccine is working.



**What side effects
should you expect after
the COVID-19 vaccine?**

COVID vaccines are reactogenic AND safe

Adverse events

Reactogenicity

- Sore arm, erythema
- Myalgias/arthralgias
- Fatigue
- Headache
- Nausea/vomiting
- Fever

Safety

- Medically important event attributed to vaccination

**Reactogenicity =
Your Immune System is
Working!**

**Are COVID-19 Vaccines
Safe?**

How a new vaccine is developed, approved and manufactured

The Food and Drug Administration (FDA) sets rules for the three phases of clinical trials to ensure the safety of the volunteers. Researchers test vaccines with adults first.

PHASE 1

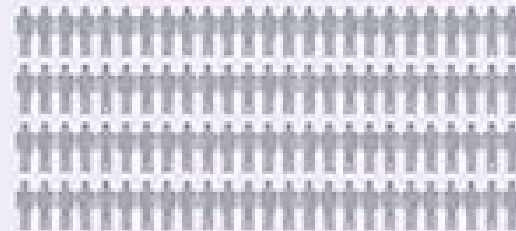


**20-100
healthy volunteers**



- Is this vaccine safe?
- Does this vaccine seem to work?
- Are there any serious side effects?
- How is the size of the dose related to side effects?

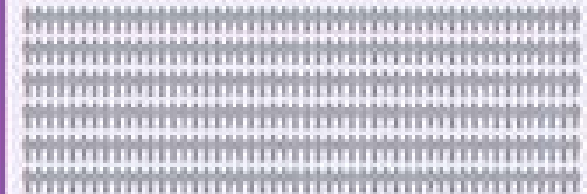
PHASE 2



**several hundred
volunteers**

- What are the most common short-term side effects?
- How are the volunteers' immune systems responding to the vaccine?

PHASE 3




**hundreds or thousands
of volunteers**

- How do people who get the vaccine and people who do not get the vaccine compare?
- Is the vaccine safe?
- Is the vaccine effective?
- What are the most common side effects?

FDA licenses the vaccine only if:

- It's safe and effective
- Benefits outweigh risks



Safety Is a Top Priority

The U.S. vaccine safety system ensures that all vaccines are as safe as possible. [Learn more.](#)

Have you had a reaction following a vaccination?

1. Contact your healthcare provider.
2. [Report an Adverse Event](#) using the VAERS online form or the new downloadable PDF. **New!**

Important: If you are experiencing a medical emergency, seek immediate assistance from a healthcare provider or call 9-1-1. CDC and FDA do not provide individual medical treatment, advice, or diagnosis. If you need individual medical or health care advice, consult a qualified healthcare provider.

¿Ha tenido una reacción después de recibir una vacuna?

1. Contacte a su proveedor de salud.
2. [Reporte una reacción adversa](#) utilizando el formulario de VAERS en línea o la nueva versión PDF descargable. **Nuevo!**



What is VAERS?



Get vaccinated.
Get your smartphone.
Get started with v-safe.

Use your smartphone to tell CDC about any side effects after getting the COVID-19 vaccine. You'll also get reminders if you need a second vaccine dose.

- On This Page
- [Register](#)
 - [Complete a v-safe health check-in](#)

V-safe is a smartphone-based tool that uses text messaging and web surveys to provide personalized health check-ins after you receive a COVID-19 vaccination. Through **v-safe**, you can quickly tell CDC if you have any side effects after getting the COVID-19 vaccine. Depending on your answers, someone from CDC may call to check on you and get more information. And **v-safe** will remind you to get your second COVID-19 vaccine dose if you need one.

Your participation in CDC's **v-safe** makes a difference — it helps keep COVID-19 vaccines safe.

- Other v-safe Resources
- [Troubleshooting](#)
 - [Frequently Asked Questions about v-safe](#)

www.vaers.hhs.gov

**How common are severe
reactions with the COVID-19
vaccine?**

Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Pfizer–BioNTech COVID–19 Vaccine — United States, December 14–23, 2020

Weekly / January 15, 2021 / 70(2);46–51

During December 14–23, 2020, monitoring by the Vaccine Adverse Event Reporting System detected 21 cases of anaphylaxis after administration of a reported 1,893,360 first doses of the Pfizer-BioNTech COVID-19 vaccine (11.1 cases per million doses); 71% of these occurred within 15 minutes of vaccination.

Allergic Reactions Including Anaphylaxis After Receipt of the First Dose of Moderna COVID–19 Vaccine — United States, December 21, 2020–January 10, 2021

Weekly / January 29, 2021 / 70(4);125–129

During December 21, 2020–January 10, 2021, monitoring by the Vaccine Adverse Event Reporting System detected 10 cases of anaphylaxis after administration of a reported 4,041,396 first doses of Moderna COVID-19 vaccine (2.5 cases per million doses administered). In nine cases, onset occurred within 15 minutes of vaccination. No anaphylaxis-related deaths were reported.

The New York Times

BREAKING NEWS

The U.S. will seek to pause Johnson & Johnson's coronavirus vaccine after six women developed rare blood clots, officials briefed on the decision said.

Tuesday, April 13, 2021 7:03 AM EST

All six recipients were women between the ages of 18 and 48. One woman died and a second woman in Nebraska has been hospitalized in critical condition, the officials said.

An Update on the Johnson and Johnson Vaccine

As a valued COVID-19 Community Corps member, you are a trusted messenger of COVID-19 information in your community. **Your voice is critical to clearly communicating about the safety and efficacy of all COVID-19 vaccines.**

That said, we want to provide you with an update on the recommended Johnson and Johnson (J&J) vaccine pause.

As of April 12, nearly seven (7) million J&J doses have been administered. The U.S. Center for Diseases Control and Prevention (CDC) and the U.S. Food & Drug Administration (FDA) are investigating six (6) cases of an extremely rare type of blood clot in individuals after receiving the J&J vaccine.

As CDC and FDA noted in join their statement, right now these adverse events appear to be extremely rare.

Out of an abundance of caution, and as they review these rare cases, CDC and FDA are recommending vaccine providers pause on administering the J&J vaccine. As FDA noted this morning, FDA and CDC hope to review this quickly over the next few days. This pause is important so that we have time to review the cases and help healthcare providers understand how to treat any individuals who may experience these rare events.

This announcement will not have a significant impact on our vaccination plan: J&J vaccine makes up less than five (5) percent of the recorded shots in arms in the United States to date.

Based on actions taken by the President earlier this year, the U.S. has secured enough Pfizer and Moderna doses for 300 million Americans. You can read the full statement from White House COVID-19 Response Coordinator, Jeff Zients, on the impact on supply [here](#).

CDC Recommends Use of Johnson & Johnson's Janssen COVID-19 Vaccine Resume

Updated Apr. 30, 2021

Languages ▾

Print

Updates as of April 25, 2021

What you need to know:

- CDC and the U.S. Food and Drug Administration (FDA) recommend use of Johnson & Johnson's Janssen (J&J/Janssen) COVID-19 Vaccine resume in the United States, after a temporary pause.
- Reports of adverse events following the use of J&J/Janssen vaccine suggest an increased risk of a rare adverse event called thrombosis with thrombocytopenia syndrome (TTS). Nearly all reports of this serious condition, which involves blood clots with low platelets, have been in adult women younger than 50 years old.
- A review of all available data at this time shows that the J&J/Janssen COVID-19 Vaccine's known and potential benefits outweigh its known and potential risks.
- However, women younger than 50 years old especially should be aware of the rare but increased risk of this adverse event and that there are other COVID-19 vaccine options available for which this risk has not been seen.
- CDC and FDA will continue to monitor the safety of all COVID-19 vaccines.

**If I have latex, food, pet,
environmental, medicine
allergies, is it safe to get
the COVID-19 vaccine?**

Yes

**Who should NOT receive a
COVID-19 vaccine?**

If you have a severe allergic reaction to a COVID-19 vaccine

If you had a severe allergic reaction—also known as anaphylaxis—after getting the first shot of a COVID-19 vaccine, [CDC recommends that you not get a second shot of that vaccine](#). If the reaction was after an mRNA COVID-19 vaccine (either Pfizer-BioNTech or Moderna), you should not get a second shot of either of these vaccines. Learn which [COVID-19 vaccines need a second shot](#).


An allergic reaction is considered severe when a person needs to be treated with epinephrine or EpiPen® or if they must go to the hospital. Learn about [common side effects of COVID-19 vaccines](#) and when to call a doctor.

If you have a non-severe allergic reaction to a COVID-19 vaccine

If you had an immediate allergic reaction after getting a shot of a COVID-19 vaccine, **you should not get a second shot of that vaccine**, even if your allergic reaction was not severe enough to require emergency care. If the reaction was after an mRNA COVID-19 vaccine (either Pfizer-BioNTech or Moderna), you should not get a second shot of either of these vaccines. An immediate allergic reaction happens within 4 hours of getting vaccinated and may include symptoms such as hives, swelling, and wheezing (respiratory distress). Your doctor may refer you to a specialist in allergies and immunology to provide more care or advice.

**What if I do not have a
doctor or health insurance?
Can I still get the COVID-19
vaccine?**

Cost is not an obstacle to getting vaccinated against COVID-19.

Vaccine doses purchased with U.S. taxpayer dollars will be given to the American people at no cost. However, vaccination providers may be able to charge administration fees for giving the shot. Vaccination providers can get this fee reimbursed by the patient's public or private insurance company or, for uninsured patients, by the [Health Resources and Services Administration's Provider Relief Fund](#)  .

**What if I already had
COVID-19 or I know that I
have antibodies?**

You are still eligible for the
COVID-19 vaccines and should
receive them.

**What are the benefits of
getting a COVID-19 vaccine?**

COVID-19 vaccination will help keep you from getting COVID-19

COVID-19 vaccination is a safer way to help build protection

COVID-19 vaccination will be an important tool to help stop the pandemic

Your Activity	Fully Vaccinated People	Unvaccinated People
Walk, run, wheelchair roll, or bike outdoors with members of your household		
Attend a small, outdoor gathering with fully vaccinated family and friends		
Attend a small, outdoor gathering with fully vaccinated and unvaccinated people		
Dine at an outdoor restaurant with friends from multiple households		
Attend a crowded, outdoor event, like a live performance, parade, or sports event		

**Where can I get my
COVID-19 vaccine?**



COVID-19 Vaccines - Safe. Tested. Effective.

Find a vaccine!



Georgia Vaccine Locator

Enter your county in the search box at the top of the locator.

[Search the Locator](#)

Health Department Vaccine Scheduling Resource Line

(888) 457-0186

*Monday – Friday 8 AM – 8
PM ET*

*Saturday – Sunday 8 AM – 5
PM ET*



VaccineFinder helps you find clinics, pharmacies, and other locations that offer COVID-19 vaccines in the United States.

In some states, information is limited while more providers and pharmacies update locations in the coming weeks. COVID-19 vaccine availability is limited, and appointments are required at most locations.

[FIND COVID-19 VACCINES](#)



What to Expect at Your Appointment to Get Vaccinated for COVID-19

Updated Dec. 19, 2020

Languages ▾

Print



It's important for everyone to continue using all the tools available to help stop this pandemic as we learn more about how COVID-19 vaccines work in real-world conditions. Cover your mouth and nose with a mask when around others, stay at least 6 feet away from others, avoid crowds, and wash your hands often.

Coronavirus Disease 2019 (COVID-19)



WEAR A MASK. PROTECT OTHERS.



When You Get Vaccinated

- You should receive a vaccination card or printout that tells you what COVID-19 vaccine you received, the date you received it, and where you received it.
- You should receive a paper or electronic version of a fact sheet that tells you more about the specific COVID-19 vaccine you are being offered. Each authorized COVID-19 vaccine has its own fact sheet that contains information to help you understand the risks and benefits of receiving that specific vaccine.
- All people who get a COVID-19 vaccine should be monitored on-site. Learn more about [COVID-19 vaccines and rare severe allergic reactions](#).



Observation period following vaccination

Persons with a precaution to
vaccination or a history of anaphylaxis
(due to any cause)



30 minutes

All other persons



15 minutes



Loss in America





Thank you!
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