

# GIVE LEARNING A SHOT

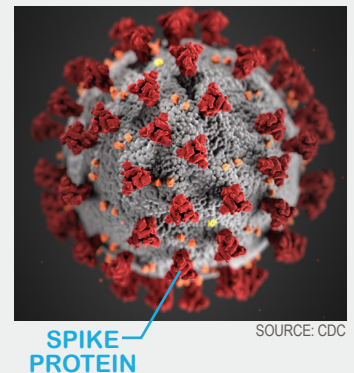
In a recent survey of educators, we asked about the impact of COVID-19 on students. The results show that kids are preoccupied with the pandemic, worried about their friends and family, and concerned about their own health. The survey confirmed what teachers and parents already know—the pandemic poses a significant barrier to learning. This is true regardless of age or whether students are learning in person or virtually.

Everyone wants the pandemic to end so we can get back to normal, but there is a lot of confusion about how the new COVID-19 vaccines work and if they are safe. Evaluating sources and understanding the science is challenging. To make this important information more accessible, we summarized the latest research and findings. The questions that follow came directly from educators and families through First Book’s recent survey. We hope this COVID-19 Vaccine Time Saver will help you make an informed decision about the COVID-19 vaccine.

## »»» I’ve heard a lot of rumors about hidden ingredients in the COVID-19 vaccine.

### What is actually in the vaccine?

It’s true there are a lot of myths about what is in the vaccine. Messenger Ribonucleic Acid, also called mRNA, is the only active ingredient in the Moderna and Pfizer vaccines. Messenger RNA is the coding sequence (instructions) for cells to make proteins. The type of mRNA in the Moderna and Pfizer vaccines encodes for a part of the COVID-19 virus: spike proteins. The mRNA in the vaccine goes into cells and makes spike proteins. Then the cells release the spike proteins, and the body makes antibodies against them. The body is now prepared to fight off the COVID-19 virus. The other ingredients of the vaccine are salt, sugar, and fat. The sugar and salt keep the vaccine’s tiny particles from clumping. The oil protects the fragile mRNA molecule. There are no hidden ingredients.<sup>1</sup>



#### IN THE VACCINE:

✓ mRNA

✓ SALT

✓ SUGAR

✓ OIL

**Misinformation or distrust of vaccines can be like a contagion that can spread as fast as measles.**

Dr. Theresa Tam, Canadian physician and public health expert

#### DID YOU KNOW?

The Moderna and Pfizer COVID-19 vaccines are different from some common childhood vaccines and the seasonal flu shot because they do not contain any viruses. The mRNA in the Moderna and Pfizer vaccines instructs our cells to make a harmless portion of the spike protein. Your immune system realizes the spike protein is not welcome and fights against it. Later, if you’re exposed to COVID-19, your immune system already knows how to fight it off because it practiced. The vaccine is like a rehearsal before the live show. The mRNA used in the COVID-19 vaccines is synthetic (man-made) and breaks down after teaching your body how to recognize and fight off COVID-19. It does not touch or change your DNA.<sup>2</sup>

#### LINKS:

- [How the Moderna and Pfizer vaccines work](#)
- [The truth behind common vaccine myths](#)
- [Dr. Oluwatosin Goje explains mRNA technology](#)
- [Common COVID-19 vaccine misconceptions](#)

## How were the vaccines developed so quickly?

The COVID-19 vaccines had a jump start because scientists have been studying similar viruses (like SARS) for decades. The Moderna and Pfizer vaccines are the first vaccines to use mRNA technology, but scientists have been studying this type of vaccine technology for years. Because of the seriousness of the pandemic, the federal government provided a lot of funding for research. When the pandemic started, [scientists from all over the world](#) changed their focus to COVID-19. They shared their research with each other to speed up the creation of a vaccine. This level of cooperation among scientists and countries is unusual and led to the quick development of effective vaccines.

### Normal vaccine production timeline: 8–15 years

Timeline for COVID-19 vaccine: 12–18 months\*



**1. RESEARCH**  
Normal: 2–4 years  
Accelerated: 6 months



**2. PRECLINICAL PREPARATION**  
Normal: 2 years  
Accelerated: 6 months



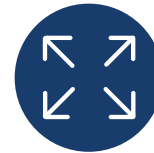
**3. CLINICAL TRIALS**  
Normal: Up to 5 years  
Accelerated: 1.5 years



**4. APPROVAL**  
Normal: 1 year  
Accelerated: 6 months



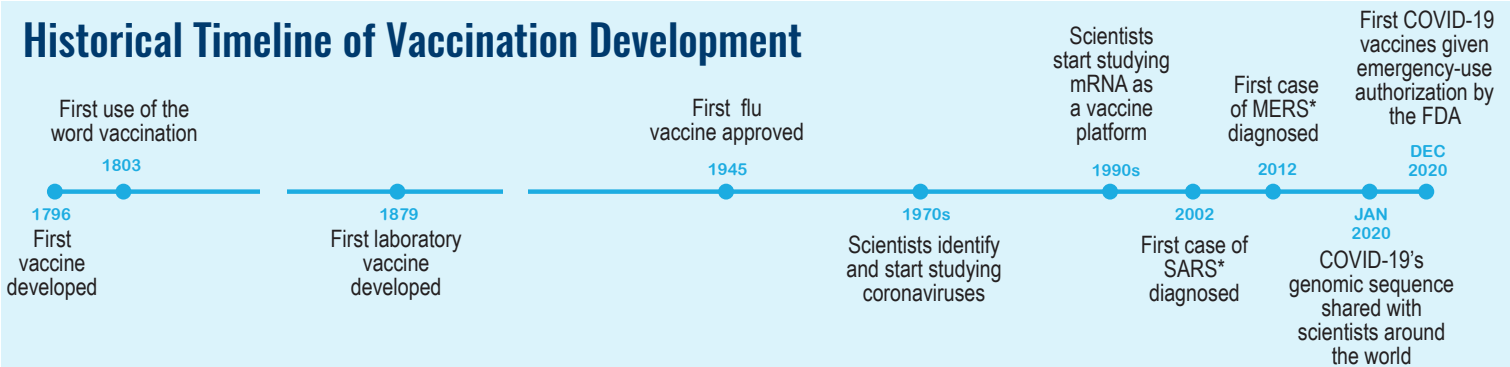
**5. MANUFACTURING**  
Normal: 2 years  
Accelerated: 3–6 months



**6. DISTRIBUTION**  
Normal: 3–6 months  
Accelerated: 1 month

\*Under an accelerated timeline, development stages proceed simultaneously or overlap. Source: *New York Times, Johns Hopkins University*

## Historical Timeline of Vaccination Development



Today, people will get vaccinated with a vaccine that I woke up on January 11th [2020] to frantically help design.

Dr. Kizzmekia Corbett, National Institute of Allergy and Infectious Diseases (NIAID)



### DID YOU KNOW?

Dr. Kizzmekia Corbett is a viral immunologist at the National Institute of Allergy and Infectious Diseases (NIAID). She is one of several African American scientists whose work contributed to these life-saving vaccines.

### LINKS:

- [How the COVID-19 vaccines were developed quickly without compromising safety](#)
- [How vaccines work and the development of the COVID-19 vaccine](#)
- [Meet one of the scientists who worked tirelessly to develop the COVID-19 vaccine](#)

## »»» How can I be sure the vaccine is safe and effective, even in the long term?

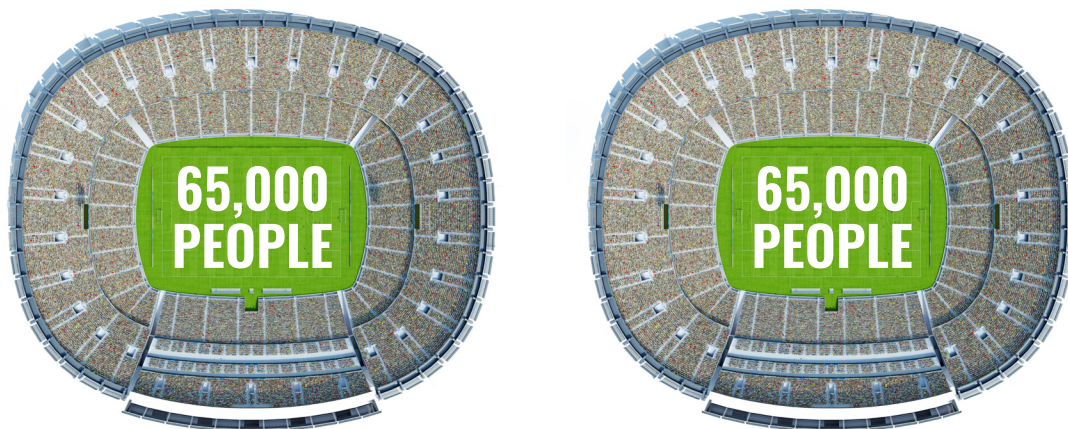
The Moderna vaccine was tested on 44,000 participants and found to be 94.1% effective. The Pfizer vaccine was tested on 38,000 participants and found to be 95% effective.<sup>3</sup> Both clinical trials included diversity in terms of age, ethnicity, race, gender, and pre-existing conditions. Only a very small fraction—fewer than 100 out of 10,000,000—experience a severe reaction.<sup>4</sup> Other companies are also working on developing COVID-19 vaccines. The Johnson & Johnson single-shot vaccine has been shown to be 85% effective in preventing severe COVID-19 and 66% effective in preventing moderate to severe cases.<sup>5</sup> The Oxford-AstraZeneca vaccine is also showing promising results with one dose preventing 67% of transmissions and reducing hospitalization by 100%.<sup>6</sup>

Right now, the known and potential benefits of the current COVID-19 vaccines outweigh the known and potential risks of getting COVID-19.

Dr. Nancy Messonnier, director of the Centers for Disease Control and Prevention's (CDC's) National Center for Immunization and Respiratory Diseases

### DID YOU KNOW?

Side effects are generally minimal, such as a sore arm, fatigue, headache, or low-grade fever and usually last only a couple of days. Most reactions happen within the first days to weeks. Anaphylaxis is a rare severe allergic reaction that usually occurs within minutes after being exposed to an allergen. This is why your doctor asks you to wait in the clinic for 15 to 30 minutes after receiving a vaccine.



IF EVERYONE IN THESE TWO STADIUMS (130,000 PEOPLE) GOT THE VACCINE, ONLY 1 MIGHT HAVE A SEVERE REACTION. 

### LINKS:

- [Get the facts so you can make an informed decision](#)
- [Side effects and possible reactions to the COVID-19 vaccine](#)

»»» **As a person of color, I'm concerned about my safety because of the history of medical racism in the U.S.**

Mistrust of the health care system is understandable given the history of medical inequity and racism in our country. New laws like HIPAA (the Health Insurance Portability and Accountability Act) ensure that patients are fully informed about their medical treatment and have the right to make decisions about their own health and medical conditions.

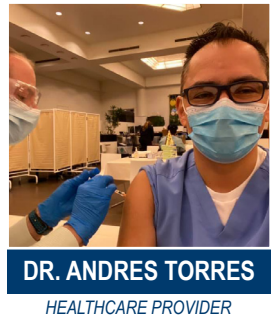
**First, I think we need to acknowledge the history and that Black and brown individuals have reason to mistrust the medical community. And then we have to let them know that because of those incidents, because of Tuskegee and Henrietta Lacks, so much has changed in our healthcare arena to protect individuals that look like me.**

Dr. Mysheika Roberts, Health Commissioner, Columbus Public Health

**DID YOU KNOW?**

Many celebrities have shared their vaccine experiences with the public, including [Kareem Abdul-Jabbar](#), [Vice President Harris](#), [Samuel L. Jackson](#), [Alexandria Ocasio-Cortez](#), and [Tyler Perry](#). Some have even participated in clinical trials, including [Stephanie Elam](#) and [Randall Park](#). Despite the rumors, celebrities receive the same vaccine as the rest of us.

*Celebrities and other Americans getting the vaccine to protect themselves, their families, and their communities.*



**LINKS:**

- [Tyler Perry discusses his vaccine decision](#)
- [Native Americans use culture and community to combat COVID-19](#)
- [Unpacking “Black hesitancy” about the vaccine](#)
- [Dr. Mieses Malchuk encourages Black and Latinx patients to get the vaccine](#)

## »»» Why has there been so much attention on people of color receiving the vaccine?

People of color have higher rates of COVID-19 related illness, hospitalization, and death and are more likely to have underlying health conditions. They are also less likely to get the vaccine.<sup>7</sup> For these reasons, it's important for those in BIPOC (Black, Indigenous, and People of Color) communities to understand the risks and potential serious consequences of getting sick with COVID-19 versus the risks and possible side effects of getting the COVID-19 vaccine.

I was skeptical because if you look at our history in this country with the Tuskegee Experiment, Henrietta Lacks, and things like that, it raises flags for us as African American people, so I understand why there's a healthy skepticism about the vaccine.



Tyler Perry, Actor, Film Maker, and Humanitarian Award Winner

### COVID DEATH RATES PER 100,000

SOURCE: COVID TRACKING PROJECT AND U.S. CENSUS BUREAU



### DID YOU KNOW?

It's OK to change your mind about the COVID-19 vaccine after learning more about how it was developed, what's in it, and how it works. [A doctor explains how she changed her mind about getting the vaccine.](#)

#### LINKS:

- [How one woman overcame her fear of the COVID-19 vaccine](#)
- [Why people of color are dying at higher rates](#)
- [CDC study finds coronavirus kills far more Hispanic and Black children](#)

**»»» I've heard I need to provide personal data and contact information to get the vaccine. Why is that? Will the government have access to that information?**

You may be asked to provide personal information such as your name, address, and phone number as well as basic demographic information. The Pfizer and Moderna vaccines require two doses administered weeks apart, and clinics need to be able to contact you for scheduling purposes. All personal information is protected by HIPAA (the Health Insurance and Portability and Accountability Act of 1996) and federal privacy laws. According to the U.S. Department of Health & Human Services, healthcare companies cannot share patient-identifying information with the government or your employer.<sup>8</sup> Most health care providers, health organizations, and government health plans that use, store, or transmit patient health-care information are required to comply with HIPAA's privacy regulations. If you have any questions, check with your local health care authorities.

**We not only have to bring people back for a second dose but need to make sure that we have very good records of which vaccine they received the first time.**

Dr. Jinlene Chan, deputy secretary of Maryland's public health services

**DID YOU KNOW?**

Many non-citizens face additional barriers when it comes to receiving the vaccine. Some are worried that providing their name and other personal information could lead to deportation. Personal and identifying information is being shared with the government to track and monitor the vaccination effort. But the Department of Health and Human Services and CDC have agreed not to release this information publicly, and government agencies will not conduct immigration enforcement at or near vaccine distribution sites or clinics.

**HEALTHCARE PROVIDERS CAN:**

- ✓ release diagnosis & hospitalization data

**HEALTHCARE PROVIDERS CAN NOT:**

- ✗ release names to the general public or release medical information to a patient's employer

**LINKS:**

- [States ramp up for largest vaccination effort in history](#)
- [Understand HIPAA and privacy laws](#)
- [Equal access to COVID-19 vaccine for undocumented workers](#)



**Let's educate ourselves about the COVID-19 vaccine and give learning a shot. When you're ready, find out how to get the free\* vaccine near you. >**

**#GIVELEARNINGASHOT**



\*The government is providing the vaccine free of charge to all people living in the U.S. Health insurance is not required, and no one can be denied a vaccine if they are unable to pay a vaccine administration fee.

This COVID-19 Time Saver was developed while several vaccines were in trials or about to be reviewed for FDA emergency-use authorization. Check the [First Book website](#) for updated information.



This First Book Time Saver was made possible by the Larry and Helen Hoag Foundation.

## »»» COVID-19 Vaccine Time Saver Sources

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