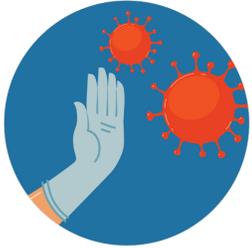


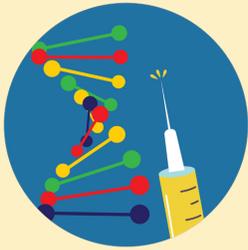
COVID-19 Vaccines: What You Need to Know



HOW DO THE VACCINES WORK?

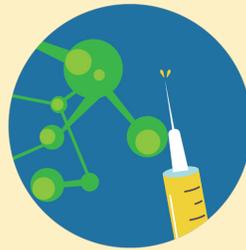
- There are three main types of COVID-19 vaccines: **messenger RNA (mRNA)**, **protein subunit** and **vector**.
- All three vaccine types either deliver, or cause our bodies to make, harmless proteins only found on the surface of the COVID-19 virus.
- The vaccine teaches our immune system to recognize the virus. After we are vaccinated, if we are exposed to the virus, our immune system recognizes, attacks and blocks the virus.

THREE MAIN TYPES OF VACCINES



mRNA

mRNA is a molecule that tells our bodies to make proteins. mRNA from the COVID-19 virus tells our cells to make harmless proteins just like those on the virus. The **Pfizer** and **Moderna** vaccines work this way.



Protein Subunit

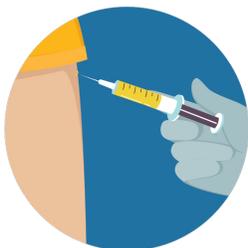
Protein subunit vaccines, such as the **Novavax** vaccine, contain harmless pieces of proteins unique to the COVID-19 virus.



Vector

Vector vaccines, like the **Johnson & Johnson** and **AstraZeneca** vaccines, use another virus that has been made safe. Material from the COVID-19 virus has been inserted inside of it. The material tells our cells to make harmless proteins unique to the COVID-19 virus.

WHAT TO EXPECT WHEN YOU GET VACCINATED



The Pfizer, Moderna and AstraZeneca vaccines are given as **two shots** in the **upper arm** muscle, **three or four weeks apart**.* The Johnson & Johnson vaccine is given as **one shot** in the upper arm muscle.



Typically, it takes about **two to four weeks** after the second shot for sufficient **immunity** to kick in.



Even **after the vaccination**, you might be able to pick up the virus, carry it and give it to others. Infection **prevention measures** in public and among unvaccinated people are still very important.

*The number of times vaccines made by other companies are given and the way they are given vary.



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ARE THE VACCINES SAFE?

Although the Pfizer, Moderna and Johnson & Johnson vaccines were developed in a faster than usual process, they were extensively tested for both **safety** and **efficacy**. All three vaccines have met **Food and Drug Administration (FDA) safety standards** and will be carefully monitored to detect any problems or side effects.



DO THE VACCINES WORK?

- Based on clinical trials, the Pfizer, Moderna and Johnson & Johnson vaccines are **extremely effective** at preventing infection from the virus and/or preventing serious disease, hospitalization and death from COVID-19.*
- The trials so far show the vaccines are equally effective across age, gender, race and ethnicity subgroups.
- The clinical trials were conducted with a **diverse group of participants**, including people of Asian, Black, Hispanic/Latinx and Native American descent.**

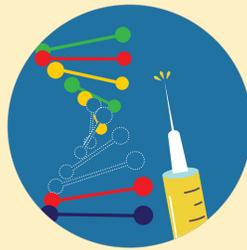
**As additional clinical trials are completed, we will know more about the efficacy of other vaccines. **Among the Pfizer participants, 5% were Asian, 10% were Black, 26% were Hispanic/Latinx and 1% were Native American. Among the Moderna participants, 4% were Asian, 10% were Black, 20% were Hispanic/Latinx and 3% were of other descent. Among Johnson & Johnson participants in the US, 6% were Asian, 13% were Black, 15% were Hispanic and/or Latinx, and 1% were Native American.*

IMPORTANT VACCINE FACTS



Fact one

You will **not** get COVID-19 from the vaccine.



Fact two

The vaccine will **not** change or damage your genetic information.



Fact three

Even **if you are vaccinated**, you should **still wear your mask**, frequently **wash your hands** and maintain **physical distance** to help keep everyone safe.



Fact four

The **Pfizer, Moderna** and **Johnson & Johnson** vaccines are all **equally important** in stopping the spread of COVID-19.

Check with your state and local health departments for information on when the vaccines will be available to you.
Visit hopkinsmedicine.org/coronavirus for more information on the vaccines.

