



In the Know

COVID-19 Vaccinations

Protecting yourself and your loved ones is essential during this pandemic. Learning about your vaccination options is the first step in the line of defense against COVID-19. Read below to learn more about these vaccinations and how they can benefit you.

Pfizer COVID-19 Vaccination vs. Moderna COVID-19 Vaccination

Pfizer

- Requires your booster shot three weeks (21 days) after the first.
- Granted emergency use for people ages 16 and older.
- Must be stored between -112 to -76 degrees Fahrenheit.

Similarities

- Data shows both are between 94 to 95 percent effective.
- Both require two doses.
- Neither is a live virus vaccine.
- Neither impacts your body's DNA.
- Reported side effects for both are nearly identical: mild fever, headache, fatigue, pain at the injection site.
- Both use new vaccine technology called mRNA.

Moderna

- Requires your booster shot four weeks (28 days) after the first.
- Granted emergency use for people ages 18 and older.
- Must be stored between -13 to -5 degrees Fahrenheit.



Understanding the mRNA COVID-19 Vaccines

- mRNA vaccines are a new type of vaccine to protect against infectious diseases. To trigger an immune response, many vaccines put a weakened or inactivated germ into our bodies. Not mRNA vaccines. Instead, they teach our cells how to make a protein—or even just a piece of a protein—that triggers an immune response inside our bodies. That immune response, which produces antibodies, is what protects us from getting infected if the real virus enters our bodies.



mRNA Vaccines Are New, But Not Unknown

- Researchers have been studying and working with them for decades. Interest has grown in these vaccines because they can be developed in a laboratory using readily available materials. This means the process can be standardized and scaled up, making vaccine development faster than traditional methods of making vaccines.
- mRNA vaccines have been studied before for flu, Zika, rabies, and cytomegalovirus (CMV). As soon as the necessary information about the virus that causes COVID-19 was available, scientists began designing the mRNA instructions for cells to build the unique spike protein into an mRNA vaccine.
- Future mRNA vaccine technology may allow for one vaccine to provide protection for multiple diseases, thus decreasing the number of shots needed for protection against common vaccine-preventable diseases.



Benefits of Receiving the COVID-19 Vaccine:

- All COVID-19 vaccines currently available in the United States have been shown to be highly effective at preventing COVID-19.
- Based on what we know about vaccines for other diseases and early data from clinical trials, experts believe that getting a COVID-19 vaccine may also help keep you from getting seriously ill even if you do get COVID-19.
- Getting vaccinated yourself may also protect people around you, particularly people at increased risk for severe illness from COVID-19.
- Experts continue to conduct more studies about the effect of COVID-19 vaccination on severity of illness from COVID-19, as well as its ability to keep people from spreading the virus that causes COVID-19.
- Wearing masks and social distancing help reduce your chance of being exposed to the virus or spreading it to others, but these measures are not enough. Vaccines will work with your immune system so it will be ready to fight the virus if you are exposed.
- The combination of getting vaccinated and following CDC's recommendations to protect yourself and others will offer the best protection from COVID-19.
- Stopping a pandemic requires using all the tools we have available. As experts learn more about how COVID-19 vaccination may help reduce spread of the disease in communities, CDC will continue to update the recommendations to protect communities using the latest science.



Facts about COVID-19 mRNA Vaccines

- **They cannot give someone COVID-19.**
 - mRNA vaccines do not use the live virus that causes COVID-19.
- **They do not affect or interact with our DNA in any way.**
 - mRNA never enters the nucleus of the cell, which is where our DNA (genetic material) is kept.
 - The cell breaks down and gets rid of the mRNA soon after it is finished using the instructions.



COVID-19 mRNA Vaccines Are Rigorously Evaluated for Safety

- mRNA vaccines are being held to the same rigorous safety and effectiveness standards as all other types of vaccines in the United States. The only COVID-19 vaccines the Food and Drug Administration (FDA) will make available for use in the United States (by approval or emergency use authorization) are those that meet these standards. mRNA vaccines do not use the live virus that causes COVID-19.

Related links:

- [Talking to Patients about COVID-19 Vaccines](https://bit.ly/3b5NQBN) (https://bit.ly/3b5NQBN)
- [Patient Information: Understanding mRNA Vaccines](https://bit.ly/2LIEyqq) (https://bit.ly/2LIEyqq)
- [FDA Vaccine Development 101](https://bit.ly/2MA55B9) (https://bit.ly/2MA55B9)

