Understanding COVID-19 Vaccines

Stopping COVID-19 requires using all available tools, including vaccination. Vaccines work with your immune system so your body will be ready to fight the virus. Safe and effective vaccines are critical to protecting families and ending the spread of the virus.

Vaccines have been shown as safe and effective in large trials of more than 20,000 people, including Native American participants.

COVID-19 vaccination will help stop this crisis. The protective steps we've been taking, like wearing masks and social distancing, help reduce the chance of getting and spreading COVID-19, but the vaccine will help our bodies fight it. Together, the vaccine and all the protective steps provide our communities with the best protection from COVID-19.



Without vaccines, germs can make us sick.



Vaccines help our body fight germs. COVID-19 vaccines help stop people from getting sick with COVID-19.



Vaccines help our body fight germs

Vaccines are instructions we give to our bodies to create defenses against germs, including viruses. A vaccine for a specific virus allows our bodies to create antibodies to fight that virus. Once our bodies learn new instructions we remember them for many years, just in case we need to use them again. Vaccines are made in several ways, including using:

- a weakened, inactive virus
- pieces of the virus, but not the whole thing
- mRNA

mRNA vaccines deliver instructions to your cells that teach them how to make the spike protein, which is a harmless piece of the COVID-19 virus. Our bodies will then respond to the spike protein and generate antibodies against it so that we are protected when we encounter the real virus.

COVID-19 vaccines cannot cause COVID-19 disease, but they do give our immune system guidelines to build the antibodies that fight the virus.



Effective January 6,2021. Source: CDC

COVID-19 vaccines prevent people from getting sick with COVID-19

COVID-19 vaccines approved for use in the U.S. have been shown in large trials to be safe and effective. During the trials, people who got the COVID-19 vaccine were protected from COVID-19 disease.

Like other vaccines used in the U.S., COVID-19 vaccines may cause temporary side effects such as:

- · soreness where the shot is given
- fever
- headache
- muscle and joint pain
- tiredness

Side effects are normal for any vaccine. These side effects tell us that our immune system is working to keep us safe by creating antibodies against COVID-19.

Safe and effective vaccines can bring the crisis to an end

COVID-19 vaccines are being produced in a short time, but all safety guidelines required by the Food and Drug Administration (FDA) have been followed. Vaccines are approved after all standard safety measures have been followed.

The FDA requires scientists to take very thorough steps to develop, test, and evaluate vaccines through clinical trials before they are approved. All of these steps and standard safety measures are being taken with the COVID-19 vaccines.

Unlike most vaccine trials in the past, the COVID-19 vaccine trials have benefited from lots of federal and private funding and researchers from across the world working together.

Part of the funding has been focused on making sure vaccines are ready for fast distribution to everyone as soon as they are found to work and be safe. The vaccines that were doing well in large trials were therefore being produced before the approval processes were completed.

For more information on COVID-19 vaccine development: **CDC.gov/coronavirus**