

# Get to Know the COVID-19 Vaccines

## The COVID-19 Vaccines

The Pfizer-BioNTech, Moderna, and Janssen (Johnson & Johnson) COVID-19 vaccines were developed to prevent infection from the virus that causes COVID-19.

### The COVID-19 Vaccines:

- Don't contain the live virus that causes COVID-19 – you can't get COVID-19 from these vaccines.
- Don't affect or interact with our DNA in any way.
- Meet the Food and Drug Administration's rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support emergency use authorization.



Clinical trials for COVID-19 vaccines were five times larger than normal drug testing standards.



Typical clinical trials

vs

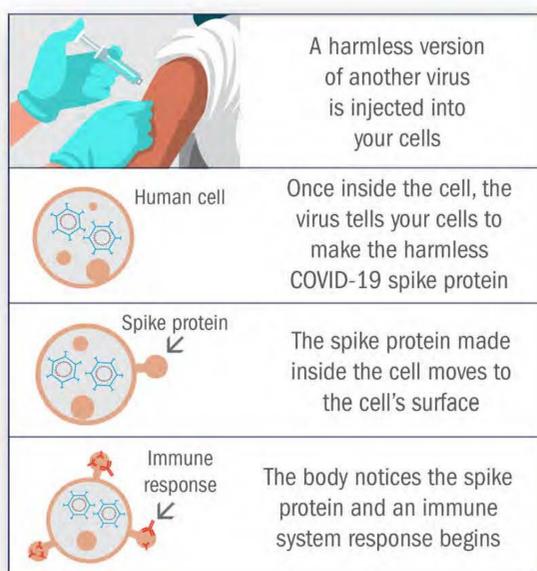
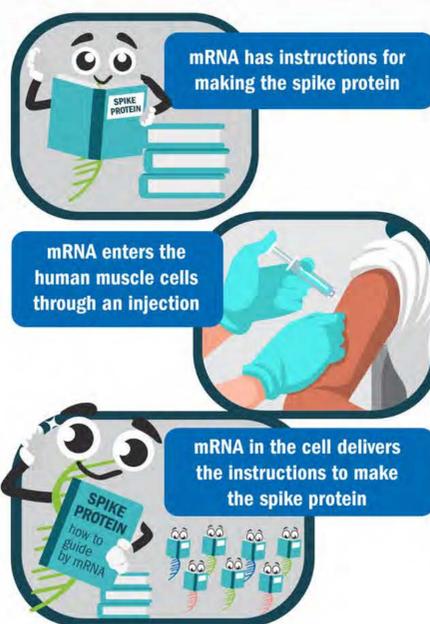


COVID-19 clinical trials  
5x larger

## How do the Vaccines Work?

### mRNA

- mRNA research began in the 1990s - that's why Pfizer-BioNTech and Moderna were able to develop an mRNA vaccine so quickly.
- Experts have been developing this technology for nearly two decades
  - mRNA vaccines do not affect or interact with your DNA (genetic material) in any way.
- Unlike many vaccines that put a weakened or inactivated germ into your body, mRNA vaccines teach cells how to make a harmless "spike" protein, which is also found on the surface of the virus that causes COVID-19, that triggers an immune response inside bodies.



### Viral Vector Vaccines

- The Janssen COVID-19 (Johnson & Johnson) vaccine uses viral vector technology which has been studied since the 1970s.
- Viral vector vaccines use a harmless version of a different virus (the vector) to enter cells in your body and cause them to produce a harmless spike protein like the one found on the surface of the virus that causes COVID-19.
- This triggers your immune system to respond and start making antibodies and activating other immune cells to fight off what it thinks is an infection.
- If you are exposed to the real coronavirus later, your body will recognize it and know how to fight it off.

## COVID-19 Vaccine Safety Monitoring

The FDA and CDC continue to monitor the safety of COVID-19 vaccines. CDC has an independent group of experts that reviews all the safety data as it comes in and provides regular safety updates. The Janssen (Johnson & Johnson) COVID-19 vaccine pause demonstrates that the safety monitoring system is active.



## How the COVID-19 Vaccine Safety Monitoring Continues

Vaccine Adverse Event Reporting System, or VAERS – This system collects and analyzes reports of adverse events that happen after vaccination.

Vaccine Safety Datalink (VSD) and Post-Licensure Rapid Immunization Safety Monitoring (PRISM) – Two networks of health care organizations across America analyze health care information from over 24 million people. Scientists use these systems to actively monitor vaccine safety.

Clinical Immunization Safety Assessment Project (CISA) – Vaccine safety experts assist American health care providers with complex vaccine safety questions about their patients.