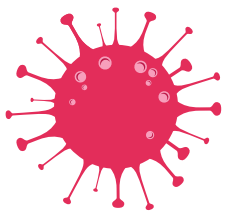


# How do the mRNA COVID-19 Vaccines Work?



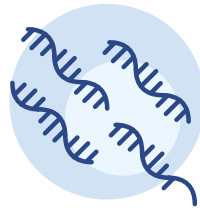
mRNA vaccines have been **rigorously evaluated for safety and effectiveness just like all other types of vaccines in the U.S.**

mRNA vaccines are a new type of vaccine to protect against infectious diseases. mRNA vaccines 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.



Coronaviruses, like the one that causes COVID-19, are named for the crown-like spikes on their surface, called spike proteins. These spike proteins are ideal targets for vaccines.

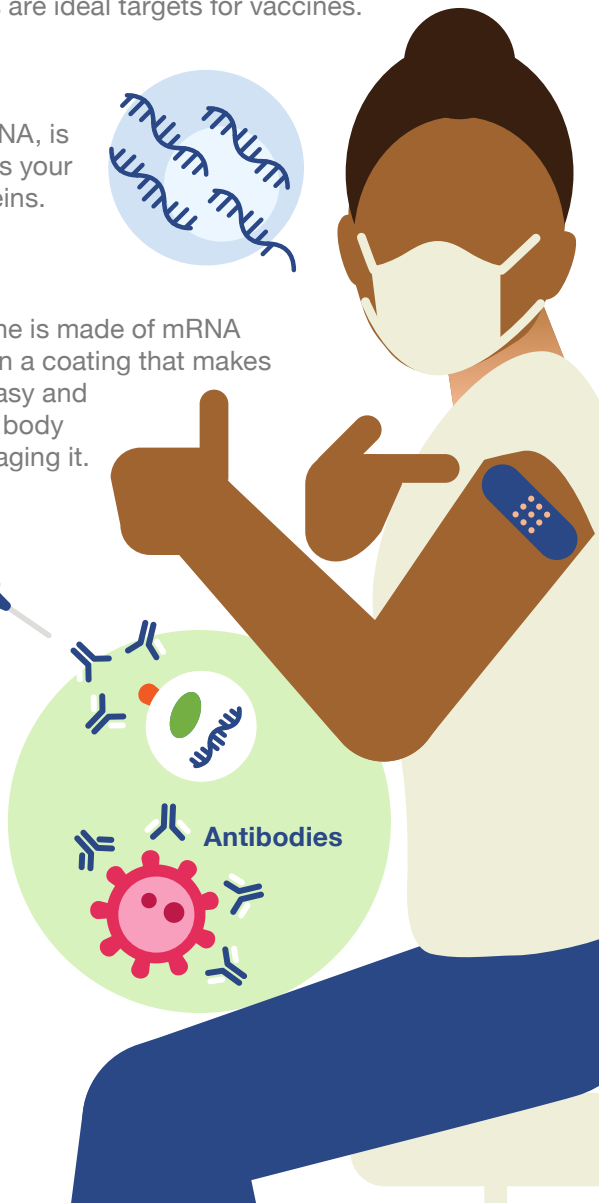
Messenger RNA, or mRNA, is genetic material that tells your body how to make proteins.



The vaccine is made of mRNA wrapped in a coating that makes delivery easy and keeps the body from damaging it.

**After the mRNA delivers the instructions, your cells break it down and get rid of it.**

The mRNA in the vaccine teaches your cells how to make copies of the spike protein. If you are exposed to the real virus later, your body will recognize it and know how to fight it off.



## The facts:

Researchers have been **studying and working with mRNA vaccines 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.

The vaccines **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.

## Remember:

