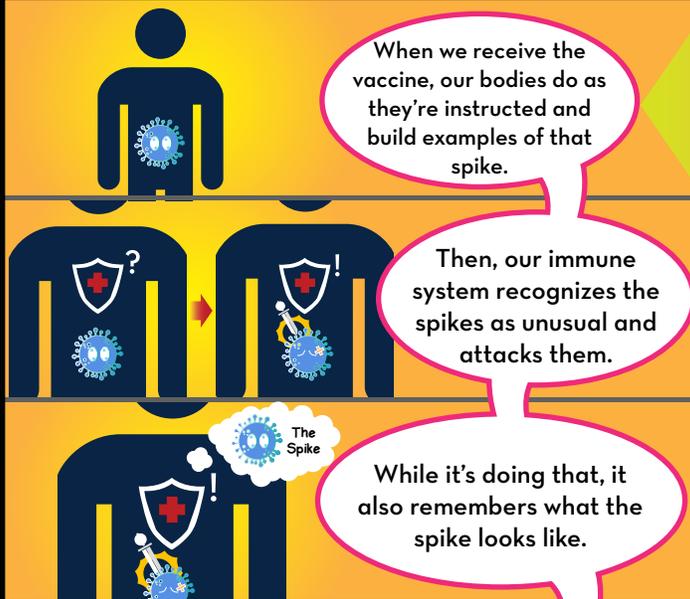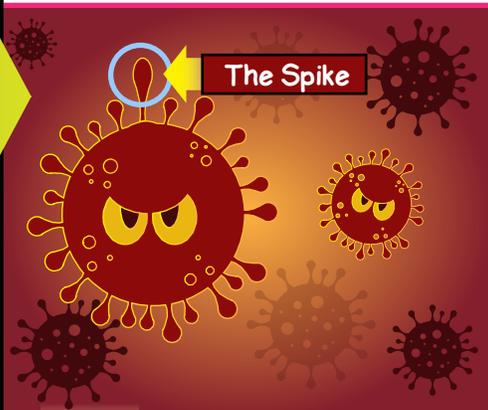# HOW DO THE MODERNA AND PFIZER VACCINES WORK?

It is important to know that scientists had a head start on these vaccines. For years, scientists at the National Institutes of Health and the University of Pennsylvania have been working to create this type of vaccine, following outbreaks of other coronaviruses like SARS and MERS. Here's how the COVID-19 vaccine works:

MARIA

Scientists isolated one part of the virus – the spike – that they could use to teach our bodies what to look out for.

The Spike

When we receive the vaccine, our bodies do as they're instructed and build examples of that spike.

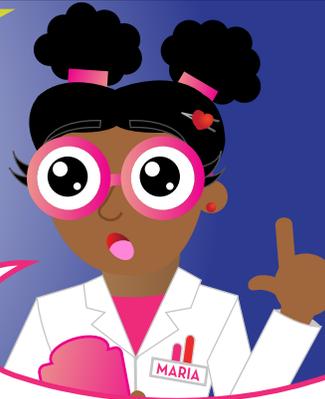Then, our immune system recognizes the spikes as unusual and attacks them.

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While it's doing that, it also remembers what the spike looks like.
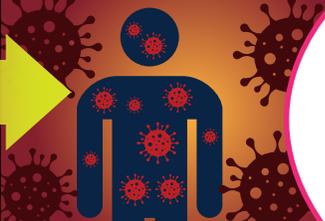
The Spike

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2nd

COVID-19 CORONAVIRUS VACCINE

The second shot you get helps the vaccine become more effective and last longer.

Because it is just the spike and not an actual virus, you will not get sick when your body builds an example spike. The response some people have to the vaccine (headache, fever, chills, sore arm) is because your immune system is recognizing something new and unusual and launching an attack on it.

COVID-19 CORONAVIRUS VACCINE

MARIA

The vaccine is basically instructions for our bodies to make an example of that spike (NOT an actual coronavirus – just the spike). You might hear these instructions referred to as "mRNA."

Without the vaccine, when the coronavirus enters your body, your immune system does not recognize quick enough that it is bad, and that gives the virus plenty of time to spread through your system and make you sick. Without the vaccine, your immune system is left desperately trying to play catch up as the virus spreads through your body.

With the vaccine, your body already knows to be on the lookout for that spike. If you are vaccinated, when the coronavirus enters your system, your body immediately gets to work destroying it.

The vaccine does NOT involve injecting you with COVID-19 and it does NOT change your DNA or your genetic code.

#GetVaccinatedDC