

HOW DO COVID 19 VACCINES WORK?

Long before the COVID-19 pandemic started, scientists were already:

- developing vaccines for other diseases,
- studying other coronaviruses,
- and working on new types of vaccines to try.

So, they had a head start when they needed to make COVID-19 vaccines. When scientists first identified the coronavirus that causes COVID-19, they shared their information with everyone. That meant lots of scientists could start figuring out how to fight it right away.

Many scientists and companies all over the world have been working to make enough COVID-19 vaccines for everyone, but it takes time to make them and bring them where they're needed.

Without a vaccine, the COVID-19 virus can make more of itself if it gets into your body. Your body will notice the virus and try to fight it off. But that takes time and people can get really sick from it. Sometimes they die.

THE SPIKE!

Viruses have different shapes. The coronavirus that causes COVID-19 is covered by spikes.

Scientists focused on this spike for the vaccines.



CORONAVIRUS VACCINE

There are a few different types of COVID-19 vaccines that work in different ways, but they all have the same job. They get your body to recognize those spikes from the COVID-19 virus.

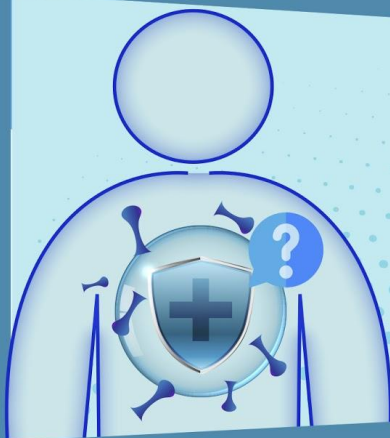
When you get a shot of the vaccine, your body gets to practice fighting the coronavirus without getting you really sick (because it is only working with those spike pieces, not the whole coronavirus).

Here's how it works:**1.**

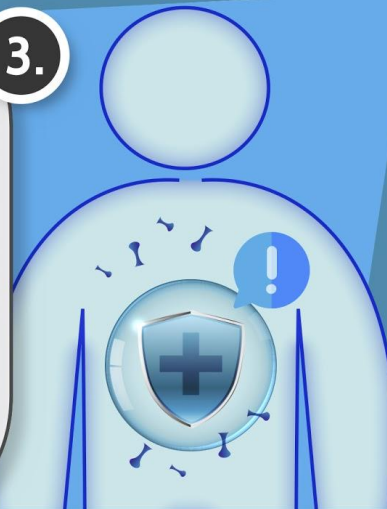
Getting the COVID-19 vaccine is similar to other shots. You will feel a little pinch when it is put into your body.

**2.**

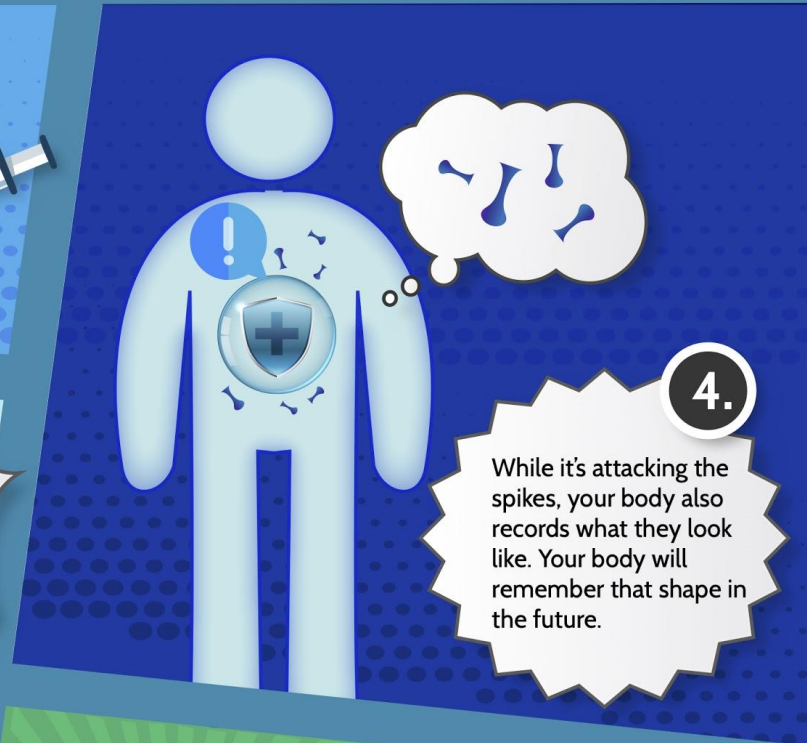
On the inside, your body is always on the lookout for germs it doesn't recognize. It notices that those spikes from the vaccine are something unusual that it thinks could cause you to be sick, so it makes a response.

**3.**

Your body attacks the spikes! You might notice signs that your body is fighting against the spikes. Some people have a sore arm, a fever, or feel tired. These are called side effects. They do not mean you are getting sick with COVID-19 from the vaccine. The side effects may last a few hours to a couple of days. The side effects are much less serious than what could happen from getting COVID-19. Remember, there is no way to get the COVID-19 disease from the vaccine because it's not using the whole virus.

**4.**

While it's attacking the spikes, your body also records what they look like. Your body will remember that shape in the future.

**5.**

Now, with the COVID-19 vaccine, your body knows to be on the lookout for those spikes. If the actual COVID-19 virus gets in, your body will remember what it looks like. Then your body can start destroying it immediately, so you don't get really sick. Most people who get the vaccine would not even realize if the virus got into their bodies because it was destroyed so quickly!

