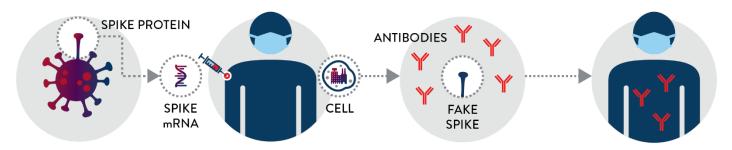
## STAY SAFE

## **How mRNA COVID-19 Vaccines Work**

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The type of virus that causes COVID-19 is called a coronavirus. The coronavirus has points that stick out all around it. These points are called spike proteins. These spike proteins stick to and get inside the cells of our bodies and make us sick. Medical researchers have learned the code for the spike protein that causes COVID-19. They used this information to make instructions (messenger RNA (mRNA)) to teach our cells how to make a fake copy of the spike protein and to fight it.



Medical researchers make the instructions (the mRNA) that tell your body to make a fake copy of the spike protein. The mRNA goes into the vaccine. When the vaccine enters the body, the mRNA in the vaccine goes to little protein factories in the cells around the spot on your arm where the vaccine is injected. Your body uses the mRNA to make many copies of the fake coronavirus spike. Since it is fake, you cannot get COVID-19 from the vaccine.

Your immune system is what helps you fight illness. It has many fighters to attack bacteria and viruses. When your immune system sees the fake spikes, it thinks you have COVID-19, even though you do not. The immune system then makes many more fighters. These fighters are called antibodies. Some people may feel side effects while their body is making antibodies to fight the fake spikes.

Now, your body has built up many fighters to protect you from COVID-19 without you ever getting sick with COVID-19. This takes about two weeks after your final dose. If the virus enters your body after that time, your body can easily attack the COVID-19 virus, because it already knows the virus from the fake copy that you got. This is how it stop you from getting sick.

- After your body makes the spike, it destroys the mRNA.
- You cannot get COVID-19 from the vaccine.
- No COVID-19 virus is in the mRNA vaccine.

