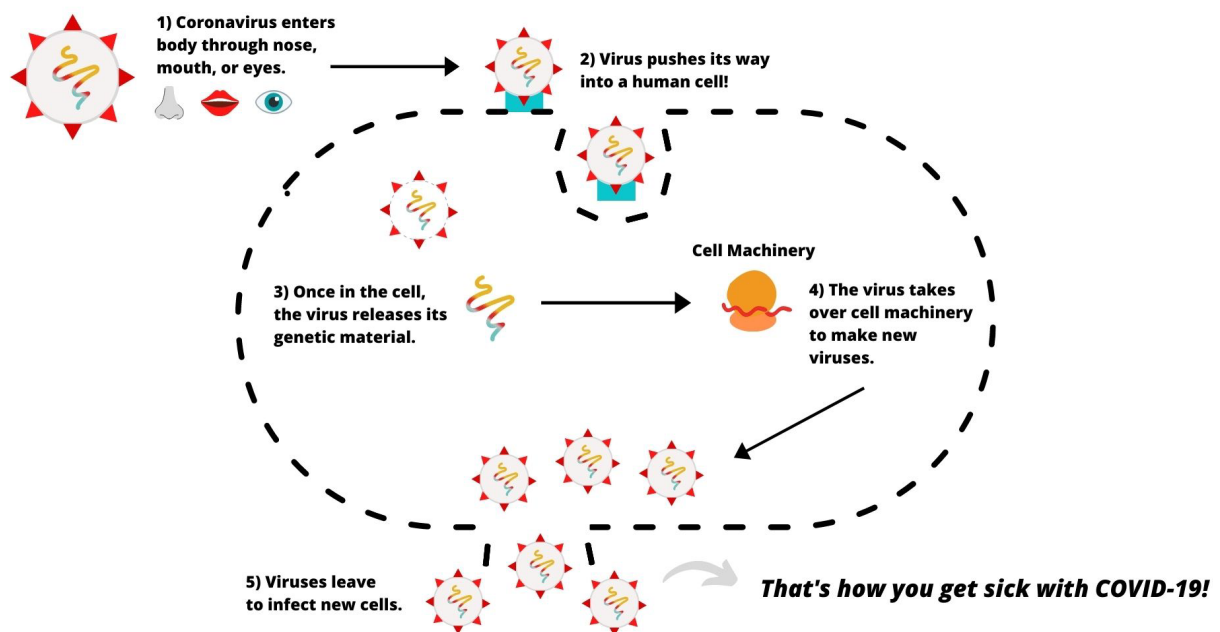


How Do the COVID-19 Vaccines Work?

How the Virus Infects Cells

The virus that causes COVID-19 is called SARS-CoV-2. The virus has spike proteins on its surface that help it infect cells, depicted by red triangles in the image below. After entering the body, it uses cell machinery to make copies of itself, which then infect other cells. The symptoms of COVID-19 are a result of the virus's attack on cells and the immune system's response to the virus.



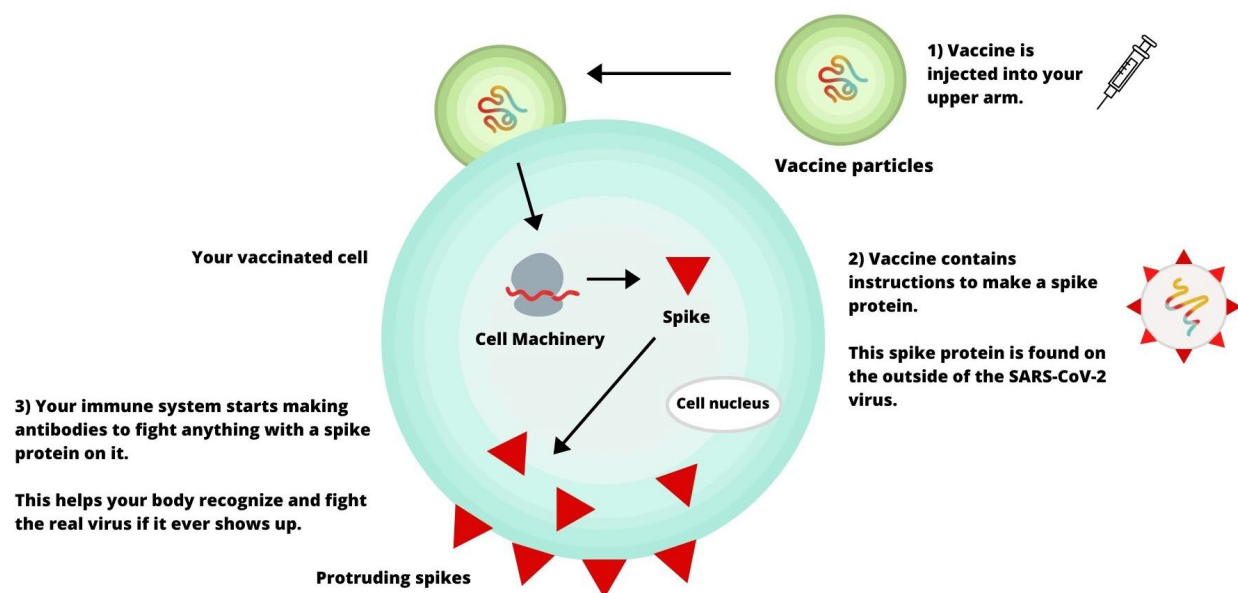
Resources:

[NYT: How Coronavirus Hijacks Your Cells](#)

[CDC: How COVID-19 Spreads](#)

How the Vaccines Work

COVID-19 vaccines help prepare the immune system to recognize and fight the virus if they come across it. The vaccines deliver instructions to cells to create a harmless part of the virus, the spike proteins. After the cells make the spike proteins, the immune system recognizes that they don't belong there. The immune system then creates antibodies and activates other immune cells to fight anything with a spike protein. If the body comes across the virus in the future, it will recognize and fight it quickly.



Resources:

This Tik Tok video provides a humorous overview of the process: [How the mRNA vaccine works](#)
[NYT: How Nine COVID-19 Vaccines Work](#)