

# How COVID-19 Adenovector Vaccines Work

1

**Why is it called an “Adenovector” vaccine?**

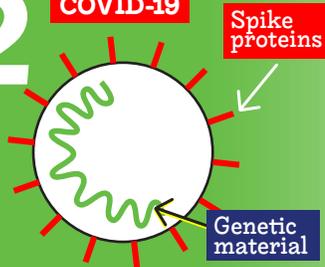
**Adenovector:**

**Adeno** = Adenovirus, a virus that causes the common cold.

**Vector** = a way to deliver genetic material to cells.

2

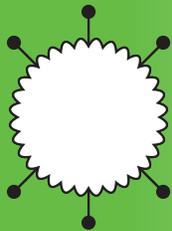
**COVID-19**



COVID-19 has spike proteins on its surface. If we can generate antibodies to the spike proteins, we can get some immunity. But, to do that, we don't want to use the entire virus.

3

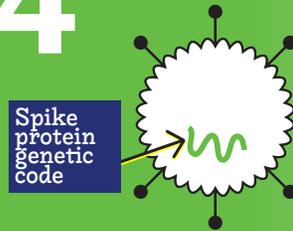
**Adenovirus Vector**



For this vaccine, an adenovirus is changed so it can't replicate and make you sick, and the genetic code for COVID's spike protein is inserted into the adenovirus.

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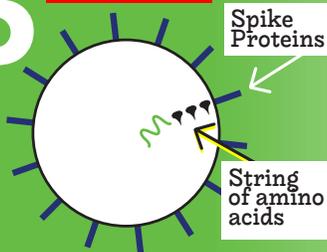
**Adenovirus Vector**



These modified adenoviruses are injected into the body, where they enter the human cell and unload the COVID-19 spike protein code to human cell machinery.

5

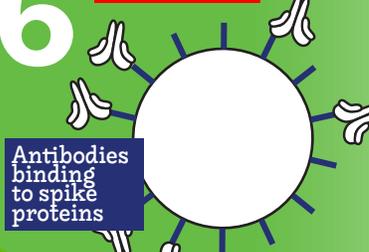
**Human Cell**



Using the genetic code, the human cells start making spike protein.

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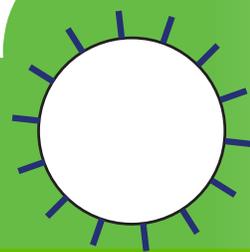
**Human Cell**



The immune system recognizes the spike proteins and responds by developing antibodies. An antibody is a protein that helps fight off infections and provides immunity.

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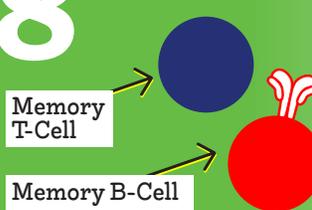
**Human Cell**



Enzymes cut up the leftover COVID-19 genetic code, which is metabolized and excreted. The genetic material delivered by the viral vector does not integrate into a person's DNA.

8

**Memory Cells**



The immune system creates memory cells that remember how to fight the virus if you're exposed to it in the future.

[www.snohd.org/covidvaccine](http://www.snohd.org/covidvaccine)

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Just like other COVID vaccines you may experience side-effects, including fever, chills, tiredness, headache, or soreness/swelling at the injection site.

This means it's working to get your body ready to defend against COVID-19.