

# What are viral vector vaccines and how do they work?

## What causes COVID-19?

COVID-19 is caused by a virus. This virus has spikes on its surface that make it look like a crown. That's why we call it a coronavirus: "corona" means "crown" in Latin. These spikes are "spike proteins." They make great targets for vaccines.

## What is a viral vector vaccine?

A virus is good at telling cells what to do. It usually tells them how to make more viruses. A viral vector vaccine uses this fact to help you. It uses a safe version of a different virus to sneak in new orders to your cells.

## How does the vaccine work?

These orders teach your body how to make only the spike proteins—not the whole virus. If the real virus enters your body later, your body will remember these spikes and know how to deal with them.

**+** The vaccine **CANNOT** give you COVID-19. It does **NOT** contain the virus that causes the disease. The vaccine only gives some cells 'spikes' that your body can learn from—like a 3D model. It can't change DNA or make you sick from other diseases.

**+** After you get the shot and your body trains to fight the real virus, you might feel tired or sore or even run a fever. These are normal signs that the vaccine is working.

**+** Which COVID-19 vaccines are viral vector vaccines?  
The Johnson & Johnson (J&J) vaccine is the only viral vector vaccine authorized for use against COVID-19 in the U.S.