

How the COVID-19 vaccines work

The Pfizer, Moderna and Johnson & Johnson vaccines were developed to prevent infection from the virus that causes COVID-19. They're built on technology that was in development for many years before the pandemic even started.



Some vaccines use **mRNA** (Pfizer and Moderna)...

- Experts have been developing mRNA technology for nearly two decades
- mRNA vaccines don't affect or interact with your DNA in any way
- mRNA teaches cells how to make a spike protein, which is also found on the surface of the COVID-19 virus
- The spike protein moves to the cell surface, triggering an immune response

...and some use **viral vector technology** (Johnson & Johnson)

- Viral vector technology has been studied since the 1970s
- A viral vector vaccine injects a version of a different virus into your cells
- This virus tells your cells to make the COVID-19 spike protein
- The spike protein moves to the cell surface, triggering an immune response

Teaching your body to fight the coronavirus



- The vaccines cause your immune system to create the antibodies needed to fight the virus
- Later, if you're exposed to the real coronavirus, your body will recognize it and know how to fight it off
- None of the COVID-19 vaccines contain the virus, so they can't give you COVID-19

Visit [VaccinateALL58.com](https://www.vaccinateall58.com) for more vaccine facts. Visit schools.covid19.ca.gov/pages/parent-page to learn about school safety measures.

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