

# How was the COVID-19 vaccine developed, approved and manufactured



Vaccines have saved the lives of thousands of Virginians through the years. Now, scientists and researchers have worked to bring us a new vaccine to help in the fight against COVID-19.

**EVERY vaccine**, no matter what it's for, goes through multiple steps. **For the COVID-19 vaccine, NO STEPS were skipped.** The financial part of the process was sped up to help us fight this virus.



## It Starts with Lab Testing

Scientists and researchers work on formulas that will become a vaccine. Before it's ever given to people, it goes through extensive lab testing.



## Next Step is Clinical Trials

Clinical trials test safety, dosage and effectiveness. Vaccines have to pass three phases in this step before they can be offered to the general public. The FDA\* sets the rules for this step.



## Last, Approval and Production

The FDA reviews the data from the trials and gives the go ahead for manufacturing. The vaccine is made in large quantities for distribution.

### \*Who is the FDA? What does it do?

A non-political group, the Food and Drug Administration (FDA) uses oversight and regulation to ensure vaccine quality, safety and effectiveness — helping to facilitate the timely development of COVID-19 vaccines.

A vaccine only gets FDA approval if it tests both **SAFE** and **EFFECTIVE**



## Clinical Trials

Volunteers around the country offer to get the vaccine so scientists and medical professionals can see how they are affected.

### PHASE 1: Safety

- Evaluate safety and identify any common reactions
- 20 – 100 volunteers

### PHASE 2: Effectiveness

- Gather more information on safety, efficacy, dosage and reactions
- Several hundreds of volunteers

### PHASE 3: Safety + Effectiveness

- Compare reactions of people who got the vaccine versus those who have not
- Thousands of volunteers



For more information about how vaccines are created, tested and distributed, visit [vdh.virginia.gov/covid-19-vaccine](https://vdh.virginia.gov/covid-19-vaccine) or call 877-ASK-VDH3.



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