How COVID-19 Vaccines Are Made

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The first COVID-19 vaccines have come out within a year of the COVID-19 virus being discovered. There are many questions about how a vaccine could be created so quickly. With help from the federal government, the process was able to happen faster and more efficiently. It is important to know that steps to check for safety were not skipped. These timelines show how the process to make COVID-19 vaccines was made more efficient compared to how other vaccines are made.

How vaccines are made

The process to make a vaccine can take up to 10 years.

- After research is done, a vaccine goes through three human clinical studies; each one has more and more people.
- The Food and Drug Administration (FDA) approves the vaccine after their science advisory group reviews the study results.
- Then a national advisory group, the Advisory Committee on Immunization Practices (ACIP) at the Centers for Disease Control and Prevention (CDC), recommends who should get the vaccine.
- After that, the manufacturer starts to make vaccine.
- As people get the vaccine, CDC and FDA continue to look at the safety data for the vaccine.
How COVID-19 vaccine is being made

- Earlier research on the coronavirus and advances in vaccine technology gave this process a jump start.
- Sometimes finding money for the vaccine studies can take a lot of time, but for COVID-19 vaccine, the federal government provided a lot of money.
- Manufacturers recruited participants for all three phases of the clinical studies at the same time, instead of waiting for each one to be done.
- Manufacturers are also making vaccine while the clinical studies happen.
- Approving a vaccine with an Emergency Use Authorization (EUA) also takes less time. Getting a safe vaccine that works is the number one priority.
  - Groups at the federal level are not letting anything delay them from reviewing and hopefully approving vaccines. For example, the FDA added a lot of staff to shorten the review process from months to weeks.
- The vaccine will only receive approval if the studies show that the vaccine is safe and works.

There are still things that we need to learn about the COVID-19 vaccine, such as how long protection from the vaccine lasts and how well it will work in the general population, but these are not reasons to delay getting a safe and effective COVID-19 vaccine out to people.

For more information, see [COVID-19 Vaccine](www.health.state.mn.us/diseases/coronavirus/vaccine.html).