

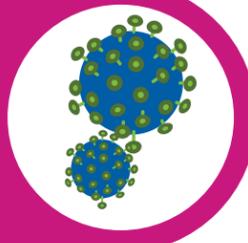
# ARE THEY SAFE?

HOW THE COVID VACCINES WERE FAST TRACKED - SAFELY

1

## Coronavirus Knowledge

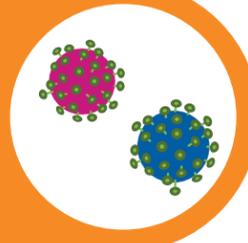
For more than fifty years, scientists have been studying coronaviruses. No vaccine effort was starting from scratch.



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## Similar to SARS

Not only is COVID-19 a coronavirus, it is related to SARS - which scientists battled in 2002.



3

## Genetic Sequence by January 2020

A scientist in China mapped out the genetic code of the COVID-19 virus and shared it worldwide in a plea for help.

Two days later, one company used the code to begin development of a new type of vaccine using mRNA.



4

## Government Dollars

Declared a pandemic, vaccines to prevent COVID-19 were given high priority - backed by high amounts of money - by governments & private citizens around the globe.



5

## Global Dedication & Info Sharing

Worldwide cooperation started the minute the scientist in China shared the virus' genetic sequence. This unusual amount of collaboration led to faster insights & results.



6

## INCREDIBLE EFFORT

By July 2020, 23 COVID-19 vaccine programs were in clinical testing & 140 were in pre-clinical testing & development.



7

## VOLUNTEERS UPON VOLUNTEERS

As the pandemic raged & the death toll grew, unprecedented numbers of people - tens of thousands upon tens of thousands - volunteered for the human clinical trials.



8

## MORE RESEARCH SITES

Each vaccine program has study centers around the world, meaning more ability to collect & compare data to verify the safety & efficacy of the vaccines.



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## FDA FOCUS

The FDA has been monitoring each vaccine programs' clinical trials from throughout their development. This intense, consistent scrutiny added another layer of safety checks to an already intense process.



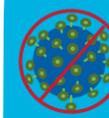
## THE NEW TYPE OF VACCINE: GENETIC VACCINES

DNA & mRNA vaccines are called 'genetic' vaccines.

Genetic vaccines are made using a synthetic strand of DNA or mRNA.

No real virus is in the vaccine.

They are relatively inexpensive and easy to manufacture and use:



1. Since they don't include the actual virus, you don't have to separate the virus and reproduce it like with other vaccines.



2. You don't need to find a way to change the virus so it won't cause the disease you want to prevent.



3. Once you have a DNA or mRNA carrier (called a plasmid) for one disease, you can change the DNA or mRNA code for any disease you want to target.

## FDA SAFETY MONITORING

Safety surveillance begins right away - from development through pre-clinical & clinical testing, manufacturing & distribution, & beyond:



RANDOM SPOT CHECKS



MONITORING OF TRIAL VOLUNTEERS CONTINUES YEARS AFTER APPROVAL



CDC'S V-SAFE PROGRAM:  
FOR THE PUBLIC:  
[TINYURL.COM/YD8KVT4F](https://tinyurl.com/yd8kvt4f)