COVID-19 mRNA Vaccines Are Not as New as You Think





The first successful mRNA (messenger ribonucleic acid) vaccination was developed **30 years ago**. The COVID-19 vaccine was available to the public so quickly because the <u>research had already been done</u> and the discoveries of mRNA vaccines have always been **promising**.

Over the past 10 years, researchers have been improving mRNA vaccine effectiveness, and they are now proving to be up to 95% effective.

Quick Facts

- mRNA vaccines do not affect or interact with your DNA.
- They **do not contain** any part of the virus.
- They teach the body to make memory cells that rev up production of antibodies, which can detect when a virus is attacking your body and neutralize the virus to reduce the severity of sickness.
- When someone gets vaccinated and then later gets sick with the virus, the body's immune system will be ready to attack the virus since it has already practiced with the vaccine.

Sources:

- Johns Hopkins Bloomberg School of Public Health. The Long History of mRNA Vaccines. October 6, 2021. Available at: publichealth.jhu.edu/2021/the-long-history-of-mrna-vaccines
- Decades in the Making: mRNA COVID-19 Vaccines. National Institutes of Health. January 10, 2023. Available at: covid19.nih.gov/nih-strategic-response-covid-19/decades-making-mrna-covid-19-vaccines
- •The University of Chicago Medicine. What is mRNA vaccine? April 21, 2021. Available at: www.uchicagomedicine.org/forefront/coronavirus-disease-covid-19/what-is-an-mrna-vaccine



1961–1990: Pioneering studies discover mRNA

1990:

Initial mRNA COVID-19 vaccine platform is developed to prepare for a pandemic

1993-1996:

Large-scale mRNA trials on humans and mRNA vaccines are developed for diseases, such as rabies, Ebola, and Zika

2000:

Scientists begin studying safe interactions between mRNA vaccines and the body's immune system

2020:

Regulatory agencies in multiple countries authorize COVID-19 mRNA vaccines