

What is mRNA?

mRNA stands for messenger RNA

- mRNA serves as temporary instructions for cells to produce proteins and acts as a mediator between DNA (genetic code) and proteins in our body
- mRNA is constantly being produced and degraded as needed for protein synthesis
 - mRNA vaccines utilize the body's natural mRNA production process and enables production of specific proteins needed for immune responses

Is mRNA safe?

- mRNA vaccines have been administered to hundreds of millions worldwide for several years
- Post-vaccination safety monitoring has not identified significant safety issues compared to other vaccine types
- Extensive data supports mRNA as a safe platform technology

What are mRNA's advantages?

1

Transient Effects

mRNA is rapidly produced and cleared in the body, ensuring transient effects without altering DNA

2

Flexible and Fast Manufacturing

mRNA enables rapid design and production of vaccines, accelerating development compared to traditional methods

3

Targeted Delivery

Allows precise delivery to specific locations and times for clinical applications



mRNA's Presence in Medicine

- mRNA has been utilized in **medical research** since its discovery in the **1960s**
- mRNA was first applied in **human trials** during the 2000s for **cancer immunotherapy**

What is the future of mRNA after COVID-19

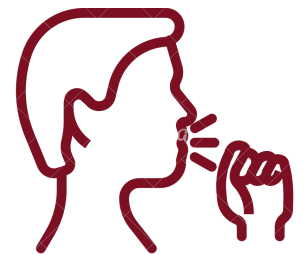
mRNA can be used for many applications beyond just COVID-19, and there are numerous ongoing clinical trials looking at how mRNA can be used for other conditions. Some examples of this include:

mRNA In Individualized Cancer Therapy:

- Tailored mRNA targets cancer cells, showing promise in reducing morbidity / mortality in advanced melanoma
- mRNA demonstrates potential in precision medicine, customized for individual cancer profiles

mRNA for Other Infectious Diseases

- Ongoing trials explore mRNA vaccines for respiratory infections such as influenza and respiratory syncytial virus (RSV)
- mRNA technology's advantage lies in its ability to rapidly adapt vaccines to evolving viruses like influenza, crucial for addressing constant mutations



Vaccination remains one of the best ways to safeguard yourself from preventable diseases, reduce the risk of serious illness and complications and prevent the spread of disease to others. Talk to your healthcare provider to learn more about how vaccination can support you and your families health and wellness.