

The Power of mRNA

mRNA can teach the body how to make its own medicines in the form of proteins

Scientists are researching the **power of mRNA** to potentially help your body make proteins that may treat diseases or train your immune system to prevent them.

But what **exactly are proteins**, and what do they do in your body?

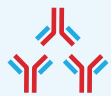
Proteins Are The “Workhorses” of Your Body



Protein

Proteins are important structural components, and are **essential** for maintaining health and preventing disease.

Antibodies are one type of protein that help your body **fight diseases**.

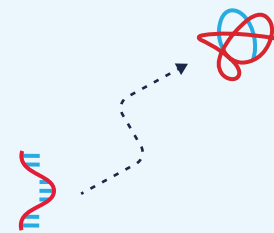


Antibodies

What Is mRNA?



mRNA is an essential part of you and **exists in all of your cells**. Your body makes lots of mRNA all the time.



Each mRNA carries instructions like a “blueprint” to **make a specific protein**. Cells interpret this blueprint and put the protein together.

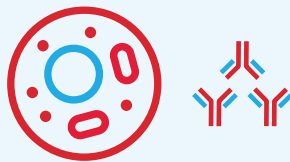


mRNA is **powerful but fragile**. Once mRNA does its job, it doesn't stay around for very long and is broken down by the body.

How Do Vaccines Work?

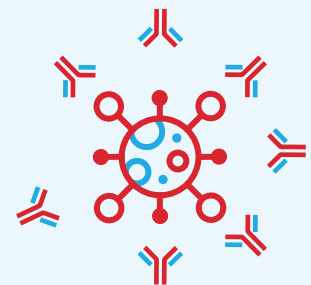
Vaccines help the body **recognize an infectious agent** like a virus.

When you get a vaccine, it triggers your body to **create antibodies**, a type of protein that can fight off the virus.



Cells create antibodies

If you are exposed to the virus in the future, your antibodies will remember the virus and **attack it**.

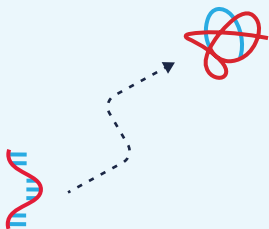


Antibodies attack virus

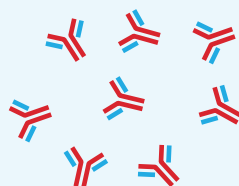
How Do mRNA Vaccines Work?

Scientists design mRNA vaccines to **teach your immune system** how to fight off infectious agents. mRNA does not change your DNA. If you are exposed to the virus in the future, your antibodies will remember the virus and attack it.¹

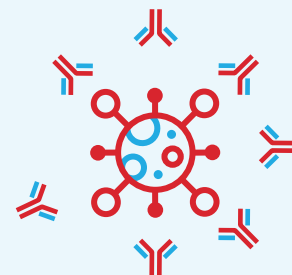
- 1 mRNA vaccines give your body **the instructions** it needs to make one or more viral proteins.



- 2 These proteins prompt your immune system to make a pool of **disease-fighting antibodies**.



- 3 These antibodies could help your body **fight off** the virus in the future.



mRNA is revolutionizing medicine.

For more information on mRNA technology, visit aboutmrna.com.

1. <https://theconversation.com/what-is-mrna-the-messenger-molecule-thats-been-in-every-living-cell-for-billions-of-years-is-the-key-ingredient-in-some-covid-19-vaccines-158511>