



## Does mRNA Alter DNA?

By Heather Simpson, Back to the Vax

One of the biggest rumors floating around about the mRNA inside of the Moderna and Pfizer COVID-19 vaccines is that mRNA permanently alters our DNA. On the surface, this seems to make sense. If mRNA means "messenger RNA", that means they can enter a cell to teach it what to make. To inject something with that much power seems like it could have a high risk of altering the DNA inside the cell as well, right?

## Nope, it can't. Let's dive in.

What exactly is mRNA? mRNA is a type of RNA that is necessary for protein production. That definition doesn't help if you don't know what RNA is. Ribonucleic acid (RNA) is an acid that is present in all living cells, and nucleic acids are large molecules that play essential roles in all cells and viruses.

Scientists created vaccine mRNA in a lab to teach our cells how to make a protein or piece of a protein, to fight off COVID. Once you get jabbed, the mRNA immediately enters muscle cells in your arm or thigh and gets to work. Once mRNA inside of your muscle cells, they use the cell's own mechanisms to produce a piece of the spike protein. This is the protein found on the surface of the COVID virus.



Then, the body immediately starts to rid itself of the mRNA protein, leaving the body as waste. The decaying mRNA half-life can be as short as 1-2 minutes and up to around 10 minutes.

Next, our cells proudly display their new spike proteins on their surfaces. In doing this, our immune system sees them, recognizes they don't belong there, and triggers an immune response to produce antibodies and activate other immune cells. This is how your body uses the vaccine to learn to fight off COVID, without you being exposed to it.

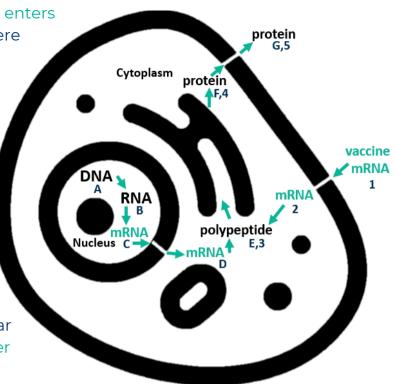


## So why can't this mRNA alter our DNA?

The mRNA from these vaccines never enters the nucleus of your cells, which is where your DNA is located. This means that the vaccine has a 0% chance of being able to alter our DNA.

This is shown in the image of the cell:

mRNA from the vaccine enters the cytoplasm, and is then translated into a polypeptide, folded, and then released from the cell into extracellular fluid. At no point does the mRNA enter the nucleus.



After all, if the mRNA from COVID vaccines could alter our DNA, then mRNA from the virus itself, when you get COVID, could also alter our DNA. And that doesn't happen either!

When I saw how physically impossible it was for the mRNA in COVID vaccines to change our DNA, I realized I had nothing to worry about and I got vaccinated. It's a big rumor and a compelling argument, but it's still a lie nonetheless that makes no sense when you look at the science behind it.

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