

# Your Guide to mRNA Vaccines

Last month, first doses of the long-anticipated COVID-19 vaccine began arriving in Washington state. (Please keep in mind these initial doses are being prioritized for front-line healthcare workers and those living in long-term care facilities, and we are **not** currently scheduling patients for the COVID-19 vaccine.) These vaccines represent not only a light at the end of the pandemic tunnel but also a breakthrough in how we'll fight future diseases. Here's why and what you should know:

## How mRNA vaccines work

Many existing vaccines (such as the measles or flu vaccine) use an inactive or weakened form of the virus. The inactive virus can't make you sick, but it still triggers your body's immune response. The approved COVID-19 vaccines, however, are a new generation of vaccine called messenger RNA (mRNA) vaccines. Instead of using the virus itself, these vaccines use genetic instructions called mRNA that cause your cells to produce a protein from the virus. In the case of COVID-19, this protein is the spike protein from SARS-CoV-2. This single protein is harmless, but when your immune system detects this protein, it makes antibodies that can attack and neutralize the real virus.

## Why mRNA vaccines finished first for COVID-19

The main reason why the first COVID-19 vaccines approved for emergency use are mRNA vaccines is because these types of vaccines are quick to produce. Once researchers learned the genetic sequence of SARS-CoV-2 back in January, they were able to have vaccine candidates ready for testing in a matter of days. Traditional vaccines, on the other hand, take months to prepare for testing. In the future, this quick-turn adaptability of mRNA vaccines means medical experts will be able to fight diseases much faster.

## Why the COVID-19 vaccines are safe

Although mRNA vaccines are fast to produce — allowing the COVID-19 vaccines to pass clinical trials at a record-setting pace — no safety evaluation steps were skipped in clinical trials or evaluation. The mRNA vaccines approved for COVID-19 are safe and effective. And because they don't contain the actual SARS-CoV-2 virus, the vaccines can't give you COVID-19. As with all vaccines, some people may experience mild side effects like soreness or local inflammation. You might feel like you're coming down with something. This is normal and these effects will go away within a few days.

Source Article: [https://rightasrain.uwmedicine.org/well/research/rna-vaccines-for-covid19?hgcrm\\_channel=email&hgcrm\\_source=healthgrades&hgcrm\\_agency=client&hgcrm\\_campaignid=2932&hgcrm\\_tacticid=5376&hgcrm\\_trackingsetid=8102](https://rightasrain.uwmedicine.org/well/research/rna-vaccines-for-covid19?hgcrm_channel=email&hgcrm_source=healthgrades&hgcrm_agency=client&hgcrm_campaignid=2932&hgcrm_tacticid=5376&hgcrm_trackingsetid=8102)