

## Be Familiar With the First COVID-19 Vaccines

### Questions about COVID-19 vaccines are firing fast and furious.

Be familiar with how the first vaccines work. The vaccines from Pfizer-BioNTech (BNT162b2) and Moderna (mRNA-1273) are "mRNA" vaccines...using messenger ribonucleic acid (genetic material).

They give our cells a blueprint to make a piece of the SARS-CoV-2 "spike" protein. This triggers our bodies to produce antibodies that will protect us from infection if we're exposed to the real virus.

This is different than other vaccines...which typically use weakened or inactivated parts of the pathogen to prompt an immune response.

Get your pharmacist involved to share facts...and dispel misconceptions. For example, mRNA vaccines DON'T affect our DNA. The mRNA is quickly broken down after the protein piece is made.

And they CAN'T cause COVID-19...since they don't use the live virus.

Plus vaccines using mRNA have been studied for decades. That's part of the reason why scientists were able to test them for COVID-19 so quickly. Manufacturing also began while waiting for trial results.

Data suggest the Pfizer-BioNTech or Moderna vaccine has roughly 95% efficacy against COVID-19 after 2 IM doses of the SAME product.

But it's too soon to say how long immunity lasts...or if vaccination prevents people from getting asymptomatic COVID-19 and spreading the virus. For now, continue to encourage wearing masks, distancing, etc.

Patients should also be prepared for injection site pain and flu-like symptoms (fatigue, aches, etc). But these should go away in a couple of days...and can be signs the immune system is working.

Don't expect COVID-19 vaccines in your pharmacy yet...especially since so far, these first vaccines have strict cold storage requirements.

Ensure patients who receive the vaccine have a follow-up plan for their next dose. They will need to get the second dose of the Pfizer-BioNTech vaccine 21 days after the first...or 28 days later for Moderna.

Learn about storage and dosing in our *COVID-19 Vaccines* chart.

Tell your pharmacist about our chart, *Communicating About COVID-19 Vaccination*, to help address patient hesitancy and misinformation.

### Key References:

-N Engl J Med 2020;383(27):2603-15

-N Engl J Med 2020;383(20):1920-31

-[www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/interim-order-import-sale-advertising-drugs/guidance.html#a212](http://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-industry/drugs-vaccines-treatments/interim-order-import-sale-advertising-drugs/guidance.html#a212) (1-4-21)

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