

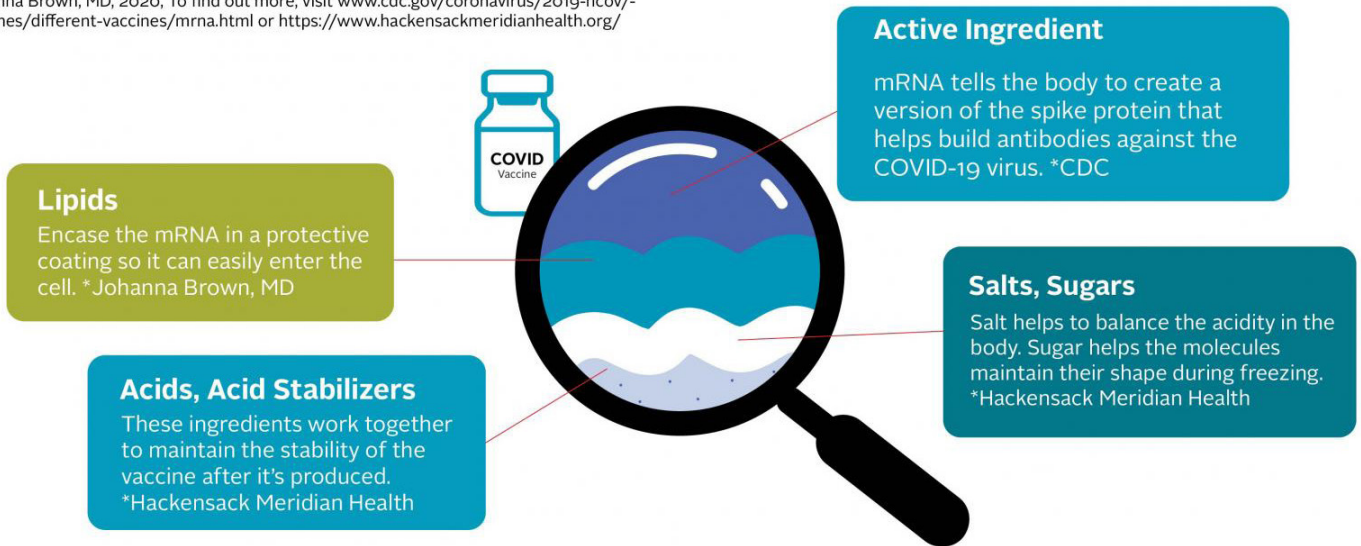
COVID Vaccine Education



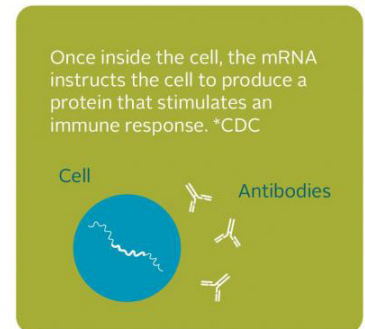
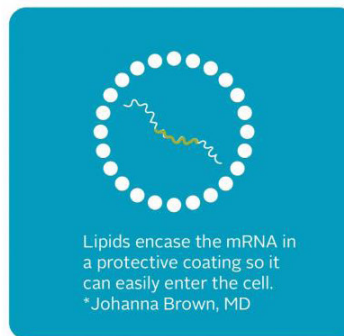
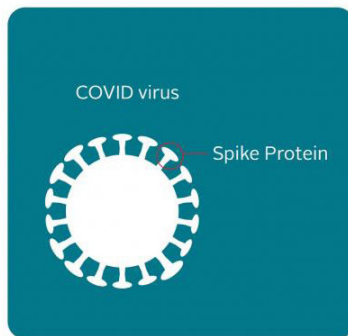
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What is in the COVID vaccine?

Johanna Brown, MD, 2020, To find out more, visit www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/mrna.html or <https://www.hackensackmeridianhealth.org/>



Properties of the COVID vaccine



What are the ingredients in the COVID-19 vaccine?

mRNA - instructs our body to create a version of the spike protein. We then produce antibodies against this protein, antibodies that will also then be ready to fight the COVID-19 virus. **Lipids** - these protect and coat the mRNA. **Salts, sugars and acetic acid** - these work together to maintain the stability of the vaccine after it's produced.

What is an mRNA Vaccine and how does it work ?

What is an mRNA Vaccine?

Messenger RNA is a synthetic genetic sequence that gives instructions for our cells to make a harmless piece of what is called the "spike protein." The spike protein is found on the surface of the virus that causes COVID-19. *CDC

How It Works

Once mRNA is inside the cell, it instructs the cells to produce a protein—or even just a piece of a protein—that triggers an immune response inside our bodies. That immune response, which produces antibodies, is what protects us from getting infected if the real virus enters our bodies. *CDC

How Long Has mRNA Been Around?

mRNA vaccines have been studied before for flu, Zika, rabies, and cytomegalovirus (CMV). As soon as the necessary information about the virus that causes COVID-19 was available, scientists began designing the mRNA instructions for cells to build the unique spike protein into an mRNA vaccine. *Hopkins Medicine

