

## **Educational Series**

### **How do mRNA Vaccines Work?**

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With COVID-19 cases on the rise questions regarding the newly available vaccine being distributed are also on the rise.

CASSA's COVID-19 vaccine education series is aiming to answer those questions.

#### **How do mRNA Vaccines Work?**

The COVID-19 vaccine works by delivering mRNA also known as messenger ribonucleic acid into our body.

mRNA is a strip of information that helps create different proteins. In order to do this mRNA is placed inside a special structure which can easily pass through into the cells of our body. Once inside mRNA enters our cells providing it with instructions to create a viral protein. Since the protein is a foreign particle, the immune system recognizes it as an antigen.

Our immune systems create an immune response to fight the antigen and remove it from our bodies. This process creates antibodies that reinforce our body's natural defenses to better protect itself if exposed to the real virus.

Some side effects of this process include fever, muscle aches, and fatigue. However, this is a normal response to any vaccine. The mRNA vaccine requires more precision and attention from our healthcare practitioners. However, they [mRNA vaccines] were chosen to combat the COVID-19 virus because mRNA vaccines are faster to produce in response to new evolving pathogens while also providing long-term protection as they activate both our antibodies and cell mediated immune responses

Want to learn more about the COVID-19 vaccine? Visit [apnahealth.org](http://apnahealth.org).

Information obtained from Public Health Ontario.