Viruses mutate due to three reasons, often giving viruses an advantage.

1. **Natural error**
   As viruses rapidly replicate themselves, they start to make random errors (like a typo), often causing the virus to change.

2. **Pressure from cells in the body**
   People with weakened immune systems are unable to quickly fight off a virus. This gives the virus “extra” time to make replication errors that help it temporarily dodge the immune system.

3. **Slow vaccination rates**
   Viruses change all the time. Slow vaccine uptake means the virus has time and opportunity to spread among the unvaccinated, providing it with more opportunities to mutate as it spreads.

**IMPORTANT SAFETY INFORMATION**

SPIKEVAX™ (elasomeran mRNA vaccine) is a vaccine used to prevent the coronavirus disease 2019 (COVID-19) caused by the SARS-CoV-2 virus. It can be given to individuals aged 12 years and older. As with any vaccine, SPIKEVAX may not fully protect all those who receive it. Even after you have had both doses of the vaccine, continue to follow the recommendations of local public health officials to prevent the spread of COVID-19. Individuals may not be optimally protected until after receiving the second dose of the vaccine.

The most common or very common side effects of SPIKEVAX are pain at the injection site, tiredness, headache, muscle ache and stiffness, chills, fever, swelling or redness at the injection site, nausea and/or vomiting and enlarged lymph nodes. Allergic reactions may also occur.

Vaccination may not be suitable for everyone, so ask your healthcare professional if SPIKEVAX is right for you. Full product information can be found on https://www.modernacovid19global.com/ca/. To report an adverse event, please call 1-866-MODERNA (1-866-663-3762).
As a virus continues to replicate, it picks up different typos in its DNA/RNA. This “typo” is called a mutation.

If the virus develops enough mutations, it becomes a variant.

When the virus picks up a mutation which changes the way in which it behaves, like how easily it spreads or how it attaches to human cells, it is called a strain.

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