

COVID-19 VIRUS VARIANTS

What is a virus?

A virus is a living thing. Like every living thing, viruses reproduce. They do that by invading cells in our body and replicating.

Viruses do not intend to make us sick when replicating. Disease and sickness are just the by-products of replication, depending on the type of virus, how it interacts with the body, how the body responds to the virus, or what organs it affects.

What is a “variant” and why do they happen?

When living things reproduce, their genetic material – their DNA – can spontaneously change. This is called “mutation”.

COVID-19 mutations can affect the spike protein on surface of the virus. This protein is what attaches the virus to our cells. If a mutated spike protein is better at attaching to a cell, the virus is more likely to invade our bodies, more likely to replicate, and more likely to make us sick.

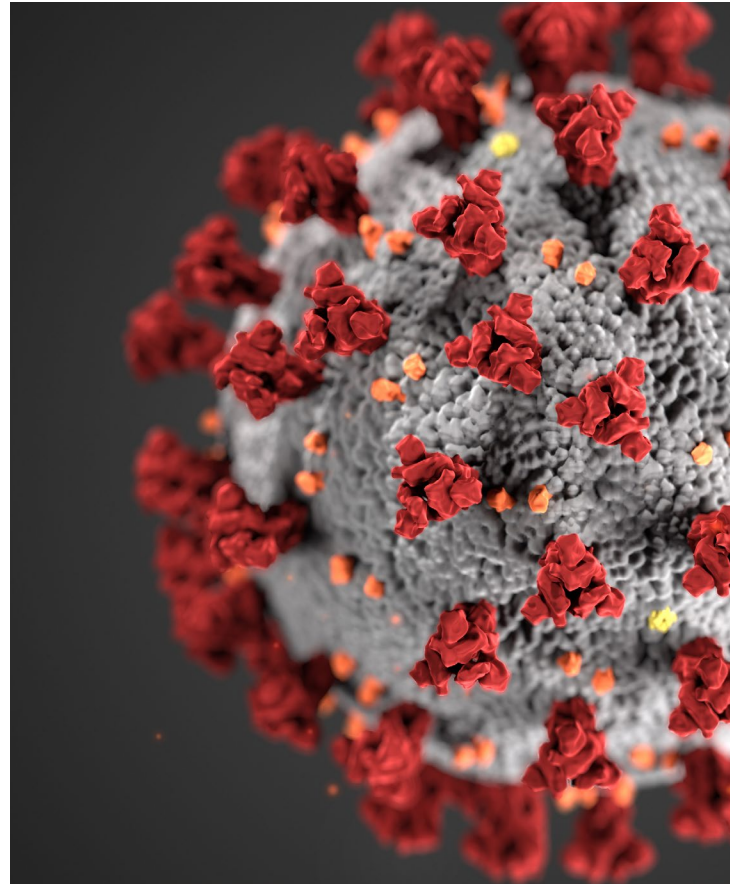
Because there are billions of COVID-19 viruses reproducing around the world, some mutations will make viruses more effective at infecting us and reproducing. Over time, these “variants” will come to be the most common form. There are four types of variants currently in circulation.

Are COVID-19 vaccines effective against variants?

COVID-19 vaccines are highly effective at stimulating our bodies’ immune response against the unmutated virus. By comparison, the flu vaccines we use every year to prevent the flu are usually 50 to 60 percent effective.



The best evidence today is that even if the COVID-19 vaccines for variants have a lower effectiveness than for the unmutated virus, they will probably be effective enough, just like the flu vaccine.



In the meantime, work is underway to modify vaccines to address these variants.

How do we stop variants?

The sooner you put out a fire, the less likely it is to spread. This is the same for viruses.

The longer that COVID-19 is in the community, the longer it is likely to spread and mutate. If we put out the COVID-19 fire, there’s nothing left to mutate.

Variants are easier to spread, and easier for you to infect someone even if you don’t have symptoms. That’s why it’s even more important to be careful and follow public health measures until everyone is vaccinated: wear a mask, maintain physical distancing, stay home unless absolutely necessary, and wash your hands frequently.

And as soon as you can, get vaccinated! ■