



Understanding Variants

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The virus that causes COVID-19 is constantly changing, and new variants of the virus are expected to occur. Sometimes new variants emerge and disappear. Other times, new variants persist. Numerous variants of the virus that causes COVID-19 are being tracked in the United States and globally during this pandemic.

How Variants Work

If you think about a virus like a tree growing and branching out; each branch on the tree is slightly different than the others. By comparing the branches, scientists can label them according to the differences. These small differences, or variants, have been studied and identified since the beginning of the pandemic.

Some variations allow the virus to spread more easily or make it resistant to treatments or vaccines. Those variants must be monitored more carefully.

How Variants Change

As the virus spreads, it has new opportunities to change and may become more difficult to stop. These changes can be monitored by comparing differences in physical traits (such as resistance to treatment) or changes in genetic code (mutations) from one variant to another.

What We Are Doing

By studying each variant and understanding these differences, scientists can monitor, and often predict, whether a variant is more dangerous than others. Scientists can also use this information to track the spread of a variant.

Important Ways to Slow the Spread of COVID-19

- Get [vaccinated](#) and stay [up to date](#) on your COVID-19 vaccines. [Find a vaccine.](#)
- Know when to wear a [well-fitted mask](#) to help protect yourself and others.
- Avoid crowds and poorly ventilated indoor spaces.
- [Test](#) to prevent spread to others.
- [Stay 6 feet apart from others](#) who don't live with you.
- [Wash your hands often](#) with soap and water. Use hand sanitizer if soap and water aren't available.

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