

# What you need to know about the new variant of COVID-19

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(HealthDay)—For Americans who are worried about the new coronavirus variant that is circulating in Britain, experts in the United States urge everyone to stay calm.

So far, the new variant only seems to spread more easily, with no evidence of higher virulence (ability to cause harm), researchers at Northwestern Medicine in Chicago explained.

"There's no reason to get scared or panic, we just need to closely monitor this variant," said Dr. Ramon Lorenzo-Redondo, a scientist who studies COVID-19. Still, he predicted that it won't be long before the variant is detected in the United States.

Three Northwestern experts—Lorenzo-Redondo, a research assistant professor in infectious diseases; Dr. Michael Ison, a professor of [infectious diseases](#); and Dr. Marc Sala, an assistant professor of pulmonary and [critical care](#)—answer some key questions people might have about the new variant.

## How soon before this variant makes it to the U.S.?

"The variant might already be present here and observed soon," Lorenzo-Redondo said. "That's due to the number of patients that have been infected by this variant, the increase observed in November and the high connectivity between the U.S. and the U.K. It has already been detected in other countries."

Sala noted that "the time frame of the variant's [spread] depends entirely on human behavior, including government-imposed travel restrictions."

## What is known about the variant's contagiousness and virulence?

"Right now, we know this variant has increased rapidly in the U.K. and accounts for a high proportion of new cases there," Lorenzo-Redondo said. This suggests a higher transmission rate, but this and other viral properties need to be confirmed in the lab. Meanwhile, the first analyses don't suggest increased virulence, only increased transmission, he added.

For the most part, Sala agreed. "Epidemiologic and modeling data suggests it is more transmissible and indeed appears to be outcompeting the other COVID-19 variants," he said. "It does not seem to cause more severe illness. However, this is all very preliminary and lacks experimental confirmation."

## Can a variant limit the effectiveness of the vaccine?

"These mutations do not seem to impact vaccine efficacy, but they need to be fully characterized," Lorenzo-Redondo said. "Theoretically, new mutations can impact vaccine efficacy as in other viruses, but the low mutation rate of this virus compared to others like flu or HIV-1 makes this more difficult," he explained.

"However, it is possible that if the vaccine starts to

be deployed and is effective, we could observe changes in the virus to adapt and escape from the immune response promoted by the vaccine," he cautioned. "But again, the low mutation rate makes the adaptation of this virus to a vaccine less likely."

### **How common are variants of viruses and do they generally impact effectiveness of vaccines or treatments?**

"Sometimes variants can have great impacts on vaccines or treatments. That's why it is so important to keep monitoring the variants circulating, to detect any possible mutation that could make vaccination or treatment less effective," Lorenzo-Redondo explained. But, "this virus seems to be adapting to spread as much as possible and, so far, all mutations seem to be increasing transmission, not virulence. That's probably because there is no evolutionary advantage for this virus to increase virulence."

### **What is a variant?**

Ison explained that "variants occur when there is a change in the genetic material of the virus that results in a change in proteins the virus makes. In this case, there were a few changes related to the spike protein. These have changed the spike, but [the] changes are not predicted to change the efficacy of the [vaccine](#)."

Still, studies are ongoing to understand the impact of the variant, Ison noted.

### **How does the discovery of the variant impact our social distancing behaviors?**

"This variant spreads the same way as the previous ones," Lorenzo-Redondo said. "Therefore, the safe behavior measures must remain the same. This variant shows we can't relax our social precautions." He added that with such high numbers of infections around the world, spikes in the virus will keep happening.

Ison stressed that people should still focus on not traveling, wearing a mask, maintaining social distance and hand hygiene.

According to Lorenzo-Redondo, "Because the virus keeps changing continuously, the greater the number of infected people, the more chances the [virus](#) gets to get better at infecting us."

**More information:** Visit the U.S. Centers for Disease Control and Prevention for more on the [coronavirus pandemic](#).

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