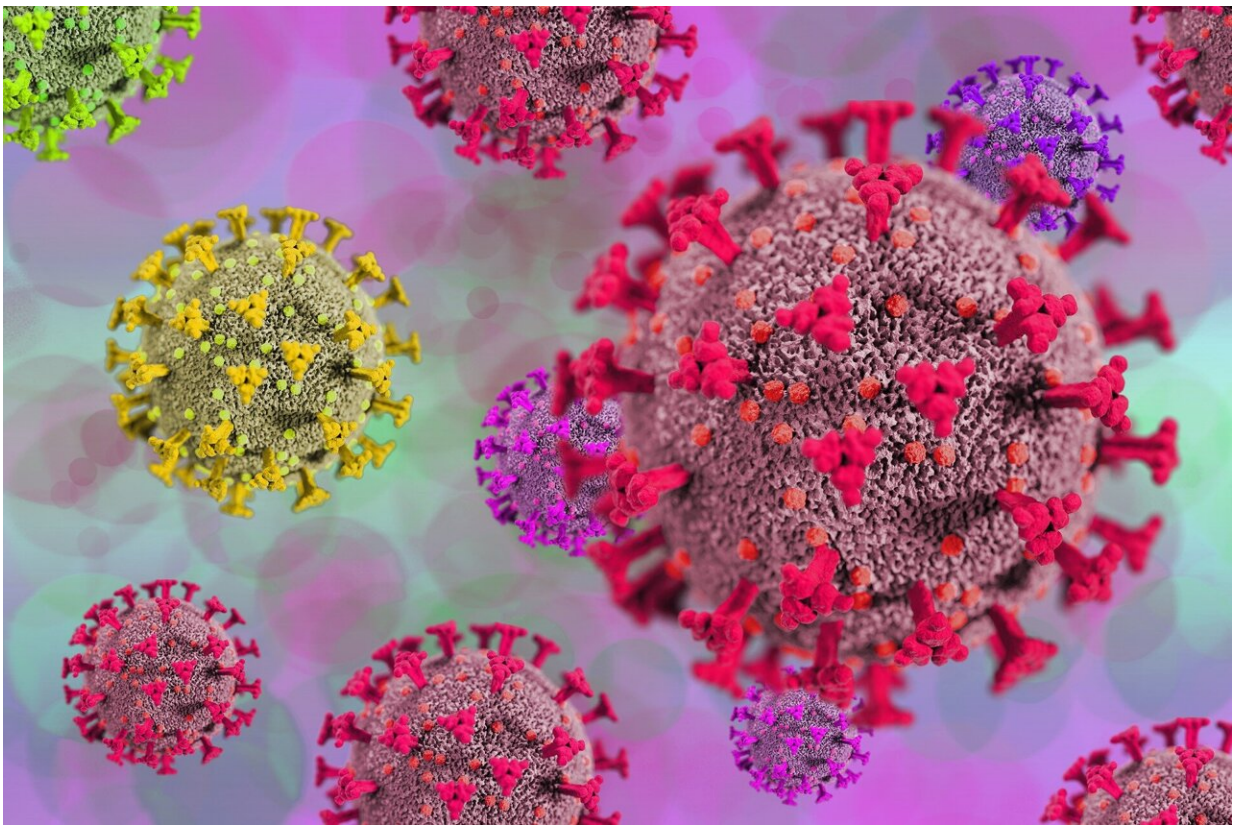


COVID-19 variant BA.5 is dominant strain; BA.2.75 is being monitored

August 3 2022, by Deb Balzer



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COVID-19 infections in the U.S. continue to rise, with omicron BA.5 causing an estimated 82% of cases, according to the Centers for Disease Control and Prevention (CDC). It may be the most dominant strain, but

it's not the only one public health officials are monitoring. Omicron is a variant of COVID-19. BA.5 and BA.2.75 refer to as subvariants or strains of omicron. Variant basically means a mutation that occurs in the virus over time.

"BA.5 is a strain that has properties associated with increased transmission of the virus, which is really why it's become so prevalent in the U.S. and globally," says Matthew Binnicker, Ph.D., director of the Clinical Virology Laboratory at Mayo Clinic. "It also has some properties of what we call 'immune evasion' that allows the virus to sidestep some of the prior immunity from either vaccination or previous [infection](#)."

BA.2.75

A subvariant known as BA.2.75 also is being monitored by the World Health Organization (WHO) and the CDC. Since it was detected in India in May, cases of BA.2.75 have been reported in more than a dozen countries. It's also been referred to unofficially as Centaurus.

"BA.2.75 has multiple mutations in the gene encoding for the spike protein of the virus. That's the part of the virus that sticks out and binds to the host cell receptor, and those mutations allow the virus to bind to that receptor more efficiently," says Dr. Binnicker. "It can infect [human cells](#) better. And it also has mutations that may make our antibodies, which are generated in response to vaccination, less able to bind or neutralize the virus. So there, again, is some concern that this virus may be able to spread quicker and also be able to evade immunity from vaccination or prior infection."

Dr. Binnicker says this strain is causing a low number of infections in the U.S., but that could change over the coming weeks or months.

Most illnesses and hospitalizations from COVID-19 infection are from the BA.4 and BA.5 variants. So how does the BA.2.75 subvariant affect people?

"BA.2.75 appears to have a higher rate of infectivity," says Dr. Binnicker. "So more efficiently being spread from person to person. We don't have any solid data to suggest that it causes more [severe disease](#), but it's important to point out that as more people are infected, even with a less virulent strain, the chances that the virus infects someone who's more susceptible to severe infection increases. Those who have an immunocompromised condition could still end up with severe disease and be hospitalized. It is a concern whenever a virus can infect people at a higher rate because the chances that the virus will infect an individual who is highly susceptible to worse outcomes then increases."

Looking ahead as children across the nation ready for the return to the classroom, Dr. Binnicker says it's going to be important to keep an eye on the rate of infection.

"There definitely is concern that as we move into the fall and winter months of 2022, and then into 2023, that the new strains of the [virus](#), including BA.2.7.5, will increase as kids go back to school. They're going to be interacting, and there's going to be increased rate of transmission of viruses, including COVID 19."

Vaccination

Dr. Binnicker says vaccination against COVID-19 is still the best way to reduce infections, hospitalizations and deaths.

"If someone has been recently vaccinated or received a booster, the levels of their antibodies and their immunity is very high. Even with the new strains that seem to have properties of immune evasion, those really

high levels of antibodies and immunity generated in response to vaccination or being boosted seems to have a good protective effect against someone coming down with an illness, especially of severe illness."

Dr. Binnicker urges everyone to ensure they are fully vaccinated for COVID-19 and get boosters if eligible.

"Keep a close eye on what the booster recommendations are from the CDC and WHO. It is very likely that coming into the fall and winter months of this year, there may be a reformulated COVID-19 vaccine available that individuals will have access to that will provide hopefully better protection against some of the newer strains of COVID-19," he says.

Provided by Mayo Clinic

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