What to Know About EG.5 (Eris)—the Latest Coronavirus Strain

A Yale Medicine expert explains whether EG.5 is more transmissible or severe than previous Omicron subvariants.

Viruses mutate, so it was only a matter of time before yet another new SARS-CoV-2 strain (the virus that causes COVID-19) emerged and started to spread. This summer, that strain is called EG.5, or, informally, Eris (nicknamed after the Greek goddess of strife and discord). A descendant of Omicron, Eris is already the dominant coronavirus subvariant in the country, infecting more people than any other single strain.

So far, EG.5 isn't setting off any alarms as far as disease severity, although early reports show it may be more transmissible—it has surpassed XBB.1.16 (or Arcturus), another highly contagious Omicron subvariant that was in the news just a few months ago.

"I am not aware of data that suggests EG.5 leads to worse cases of COVID-19 compared to prior variants," says Scott Roberts, MD, a Yale Medicine infectious diseases specialist. But early reports have shown EG.5 has been spreading faster than any other currently circulating strain.

Dr. Roberts answered questions about the summer uptick in COVID-19 cases and shared what we need to know about EG.5.

How prevalent is EG.5, the latest coronavirus subvariant?

According to Centers for Disease Control and Prevention (CDC) estimates, EG.5 was responsible for 20.6% of cases of COVID-19 in the United States at the end of the third week of August, which was more than any other single circulating SARS-CoV-2 strain. That same week, a strain called FL 1.5.1 (or Fornax), which is reported to be surging rapidly in the U.S. and accounted for 13.3% of cases, was second, followed by a mix of other XBB strains and descendants of Omicron.

How is EG.5 different from other recent coronavirus strains?

It's not much different from other recent strains, explains Dr. Roberts. EG.5, first identified in February, is a descendent of the Omicron variant, which first appeared in November 2021 and has had many subvariants. (It may be worth noting that, except in rare cases, the original version of Omicron is no longer circulating—neither is the original strain of the SARS-CoV-2 virus and the early, more severe Alpha and Delta variants.)

However, EG.5 does have one new mutation in its spike protein (the part that facilitates virus entry into the host cell) that can potentially evade some of the immunity acquired after an infection or vaccination. "Similar to all variants that have arisen, there is some extra degree of immune evasiveness because of a slight difference in genotype," says Dr. Roberts.

The World Health Organization (WHO) has classified EG.5 as a "variant of interest," which means countries should monitor it more closely than other strains because of mutations that could make it more contagious or severe. (The CDC has not yet updated its variant classification page.)

Is EG.5 contributing to an uptick in COVID-19 hospitalizations?

Most likely. This year, in the first week of August, the CDC noted a 14.3% upward trend in COVID-related hospitalizations. However, this uptick in cases and hospitalizations is much lower than in previous summers.

"These summer COVID-19 spikes have occurred for the past three years, most likely because more people are traveling," says Dr. Roberts. This recent uptick is also likely due to the new variant, which has a greater ability to bypass people's immune defenses, and the waning effectiveness of last fall's booster shots.

Does EG.5 cause symptoms that are different from other coronavirus subvariants?

Not so far. Like other Omicron strains, EG.5 tends to infect the upper respiratory tract, causing a runny nose, sore throat, and other cold-like symptoms, as opposed to lower respiratory tract symptoms, Dr. Roberts explains. But people 65 or older or who have a weak immune system are at higher risk of the virus traveling to the lower respiratory tract, causing severe illness.

Will the new booster shot expected this fall protect against EG.5?

The new booster won't be an exact match for EG.5—Pfizer, Moderna, and Novavax are all developing versions aimed at Omicron offshoot XBB 1.5, a close relative. In August, Moderna announced that early clinical trials show that its booster shot will effectively target both the EG.5 and FL 1.5.1 subvariants.

"The two strains, EG.5 and XBB.1.5, are not identical, but they're pretty close," Dr. Roberts says. "My strong suspicion is that, given the genetic similarities, there will still be a good degree of protection from the booster. We've seen throughout the pandemic that if there is a similar genetic code among Omicron subvariants—as opposed to a bigger shift like there was from the more severe Delta to Omicron—there is going to be much better cross-protection."

That idea will likely be part of the groundwork for seasonal COVID-19 booster shots in the future. "The new booster this fall won't be the last," Dr. Roberts says. "COVID-19 will probably be similar to the flu, where the strain mutates slightly every year, and we develop a vaccine before we know exactly which variants will be circulating several months out. It's always an educated guess based on what's around at the time."

Antiviral medications, such as Paxlovid, should also work against EG.5, and at-home rapid tests should be able to detect it, Dr. Roberts adds.

How can people protect themselves against SARS-CoV-2 and other viruses this winter?

Anticipation of three viruses—SARS-CoV-2, influenza, and respiratory syncytial virus (RSV)—hitting at once in the fall and winter seasons has contributed to fears of a "tripledemic" for the last three years.

This year, there should be better protection from a new COVID-19 booster and new preventive tools for RSV, which can be fatal in vulnerable people (including infants and older adults). This summer, the Food and Drug Administration (FDA) approved and the CDC recommended two RSV vaccines for people over 60 and a preventive monoclonal antibody for infants and toddlers. All three are expected to be available in the fall.

While the new COVID-19 boosters have yet to be approved, Dr. Roberts says anyone who gets a newly formulated booster shot in the fall should expect to have ample protection early in the new year—the shots take about three months to reach peak effectiveness.

Following the pattern of previous years, Dr. Roberts expects to see the usual winter uptick in COVID-19 cases, but is hoping that with EG.5 being a mild strain, the availability of COVID-19

treatments such as Paxlovid, and the new booster shot, there will be a far less significant rise in COVID-19 hospitalizations than in previous winters.

However, taking precautions may still be important, especially if you are at higher risk for severe disease because you are 50 and older, are immunocompromised, or have underlying medical conditions, such as obesity or chronic obstructive pulmonary disorder (COPD).

Protective efforts, such as avoiding people who are sick and wearing masks when among people in confined spaces, can help, but "COVID-19 vaccination is the most effective tool for prevention," Dr. Roberts says.

https://www.yalemedicine.org/news/covid-eg5-eris-latest-coronavirus-strain