

# As the BA.5 variant spreads, the risk of coronavirus reinfection grows

America has decided the pandemic is over. The coronavirus has other ideas. The latest omicron offshoot, BA.5, has quickly become dominant in the United States, and thanks to its elusiveness when encountering the human immune system, is driving a wave of cases across the country. The size of that wave is unclear because most people are testing at home or not testing at all. The Centers for Disease Control and Prevention in the past week has reported a little more than 100,000 new cases a day on average. But infectious-disease experts know that wildly underestimates the true number, which may be as many as a million, said Eric Topol, a professor at Scripps Research who closely tracks pandemic trends.

Antibodies from vaccines and previous coronavirus infections **offer limited protection against BA.5**, leading Topol to call it “the worst version of the virus that we’ve seen.” Other experts point out that, despite being hit by multiple rounds of ever-more-contagious omicron subvariants, the country has not yet seen **a dramatic spike in hospitalizations**. About 38,000 people were hospitalized nationally with covid as of Friday, according to data compiled by The Washington Post. That figure has been steadily rising since early March, but remains far below the record 162,000 patients hospitalized with covid in mid-January. The average daily death toll on Friday stood at 329 and has not changed significantly over the past two months.

There is widespread agreement among infectious-disease experts that this remains a dangerous virus that causes illnesses of unpredictable severity — and they say **the country is not doing enough to limit transmission**. Restrictions and mandates are long gone. Air travel is nearly back to pre-pandemic levels. Political leaders aren’t talking about the virus — it’s virtually a nonissue on the campaign trail. Most people are done with masking, social distancing and the pandemic generally. They’re taking their chances with the virus. *“It’s the Wild West out there,”* said Ziyad Al-Aly, an epidemiologist at Washington University in St. Louis. *“There are no public health measures at all. We’re in a very peculiar spot, where the risk is vivid and it’s out there, but we’ve let our guard down and we’ve chosen, deliberately, to expose ourselves and make ourselves more vulnerable.”*

Angela Rasmussen, a virologist at the University of Saskatchewan, would like to see more money for testing and vaccine development, as well as stronger messaging from the Biden administration and top health officials. She was dismayed recently on a trip to Southern California, where she saw few people wearing masks in the airport. *“This is what happens when you don’t have politicians and leaders taking a strong stand on this,”* she said.

The CDC said it has urged people to monitor community transmission, *“stay up to date on vaccines, and take appropriate precautions to protect themselves and others.”*

## **Covid deaths no longer overwhelmingly among the unvaccinated as toll on elderly grows**

Nearly one-third of the U.S. population lives in counties rated as having “high” transmission levels by the CDC. Cases are rising especially in the South and West. Many people now see the pandemic as part of the fabric of modern life rather than an urgent health emergency. Some of that is simply a widespread recalibration of risk. This is not the spring of 2020 anymore. Few people remain immunologically naive to the virus. **They may still get infected, but the immune system — primed by vaccines or previous bouts with the virus — generally has deeper layers of defense that prevent severe disease.** But the death rate from covid-19 is still much higher than the mortality from influenza or other contagious diseases. Officials have warned of a possible fall or winter wave — **perhaps as many as 100 million infections in the United States** — that could flood hospitals with covid patients. Beyond the direct suffering of such a massive outbreak, there could be economic disruptions as tens of millions of people become too sick to work.

*“It feels as though everyone has given up,”* said Mercedes Carnethon, an epidemiologist at the Northwestern University Feinberg School of Medicine. Carnethon said she also isn’t as cautious as she used to be. She wears a high-quality mask on airplanes but doesn’t wear a mask at the gym. She is worried that she’ll contract the coronavirus again — she caught it during the omicron wave last winter. But she doesn’t think a “zero covid”

strategy is plausible. *“I feel there is a very limited amount that I can do individually, short of stopping my life,”* Carnethon said. *“It’s risky. I’ll be catching covid at an inconvenient time. I can hope it is milder than the first time I caught it.”*

Many experts concerned about ongoing transmission have also pushed back against online fearmongering and apocalyptic warnings about the virus; people are not routinely getting infected every two or three weeks, Rasmussen said.

Population-level immunity is one reason the virus remains in mutational overdrive. The risk of reinfections has increased because **newly emergent subvariants are better able to evade the front-line defense of the immune system**, and there is essentially no effort at the community level to limit transmission.

### **They got covid. Then, they got it again.**

Al-Aly, who is also chief of research and development at Veterans Affairs St. Louis Health Care System, has scoured VA’s vast database to see what happened to the nearly 39,000 patients **infected with the coronavirus for a second or third time**. What he found was sobering. In a paper posted online last month, but not yet peer-reviewed or published in a journal, Al-Aly and his co-authors reported that **people with multiple infections have a higher cumulative risk of a severe illness or death**. It’s not that the later illnesses are worse than, or even as bad as, earlier cases. **But any coronavirus infection carries risk, and the risk of a really bad outcome — a heart attack, for example — builds cumulatively, like a plaque, as infections multiply.**

*“Reinfection adds risk,”* he said. *“You’re rolling the dice again. You’re playing Russian roulette.”*

Vaccination remains an important, if still underused, weapon against the virus — even **if it’s not that effective at stopping new infections**.

### **Omicron broke through our vaccines. How can we adapt?**

Coronavirus cases spiked globally in the first weeks of 2022, despite record-high vaccination rates. Here’s how the omicron variant took off. (Video: Jackie Lay, John Farrell/The Washington Post)

Omicron blew through the largely vaccinated population last winter with stunning ease, and since then the subvariants have arrived in rapid succession, starting with BA.2 and BA.2.12.1 in the spring, and now BA.5 and its nearly identical relative BA.4.

**Vaccines are based on the original strain of the virus that emerged in Wuhan, China in late 2019. The Food and Drug Administration has asked vaccine makers to come up with new formulas that target BA.5 and BA.4. Those boosters could be ready this fall.**

### **FDA advisers recommend update to coronavirus vaccines**

On June 28, the Food and Drug Administration recommended changes to coronavirus booster shots to target BA.4 and BA.5 omicron subvariants. But there is no guarantee that these latest subvariants will still be dominant four or five months from now. The virus is not only evolving; it’s also doing so with remarkable speed. **The virus may continually outrace the vaccines.**

*“I worry that by the time we have a vaccine for BA.5 we’ll have a BA.6 or a BA.7. This virus keeps outsmarting us,”* Al-Aly said.

### **The lucky few to never get coronavirus could teach us more about it**

*“We are in a very difficult position with regard to the choice of vaccine for the fall because we’re dealing with a notoriously moving target,”* Anthony S. Fauci, President Biden’s top adviser for the pandemic, told The Post in June, a few days before he, too, announced that he was sick with the virus. Already there’s another omicron subvariant that has caught the attention of virologists: **BA.2.75**. First seen last month in India, it has been identified in a smattering of other countries, including the United States. But it’s too soon to know whether it will overtake BA.5 as the dominant variant.

**There is no evidence that the new forms of the virus result in different symptoms or severity of disease.**

Omicron and its many offshoots — including BA.5 — **typically replicate higher in the respiratory tract** than earlier forms of the virus. That is one theory for why omicron has seemed **less likely to cause severe illness**. It's also unclear if these new variants will alter the risk of a person contracting the long-duration symptoms generally known as "long covid." The percentage of people with severely debilitating symptoms is probably between 1 and 5 percent — amounting to millions of people in this country, according to Harlan Krumholz, a Yale University professor of medicine.

His colleague, Akiko Iwasaki, a professor of immunology and expert on long covid, said in an email that she believes the world is not sufficiently vigilant about the disease anymore. She is often the only person masking in a crowd, she said.

*"I understand the pandemic fatigue, but the virus is not done with us," she said. "I fear that the current human behavior is leading to more people getting infected and acquiring long covid. I fear that this situation can lead to a large number of people with disability and chronic health problems in the future."*

The precocious nature of the virus has made infectious-disease experts wary of predicting the next phase of the pandemic. Topol warns that **a new batch of variants could come out of the blue**, the same way omicron emerged unexpectedly in November with a stunning collection of mutations already packaged together. Omicron's precise origin is unknown, but a leading theory is that it evolved in an immunocompromised patient with a persistent infection.

*"Inevitably we could see a new Greek letter family like omicron," Topol said. "There's still room for this virus to evolve. It has evolved in an accelerated way for months now. So we should count on it."*