



Town of New Castle, NH
Settled 1623
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Public Health and COVID Update April 30, 2021

I keep thinking that this week there will be less news to report. It hasn't happened yet.

The CDC has released new outdoor mask guidance. I presume this is a part of an evolving process as more people become fully vaccinated. The guidance is somewhat complicated.

1. Masking:

The basic premise is: A growing body of research indicates that the risk of spreading the virus is far less outdoors than it is indoors. Viral particles disperse quickly outdoors, meaning brief encounters with a passing walker or jogger pose very little risk of transmission.

A) Fully Vaccinated

1. Unmasked-Fully vaccinated people no longer need to wear masks outdoors in most situations. These also include outdoor small group gatherings (with vaccinated and low risk vaccinated, multiple households), dining outdoors, indoor small gatherings/visits with other fully vaccinated people, when walking, running, hiking or biking alone, or with members of their household.

2. Masked- Fully vaccinated people who choose to attend a crowded outdoor event, such as a live performance, parade, or sporting event. Fully vaccinated people should still wear masks in indoor public spaces, such as malls, movie theaters or museums.

3. Avoid- Avoid large indoor gatherings. The CDC did not define how many people would be in a large gathering, but the agency's website describes "large gatherings" as bringing together "many people from multiple households in a private or public space."

4. Other Benefits: Refrain from needing to self-quarantine after travel or if asymptomatic after a potential exposure.

B) Unvaccinated

1. Unmasked- exercising outdoors with members of your household, small outdoor gatherings with fully vaccinated family and /or fully vaccinated friends

2. Masked- attend small outdoor gatherings with a mix of vaccinated and unvaccinated people, dining outdoors with people from multiple households, indoor public spaces such as malls, movie theaters, or museums

3. Masked/Avoid- Crowded outdoor events

4. Avoid- large indoor gatherings- as with vaccinated individuals.



For everyone: Ventilation, size of space, and crowding are what primarily define the safety of indoor spaces. Per the CDC, adults should still avoid medium and large gatherings and poorly ventilated spaces. And everyone should still wear a mask when doing almost anything indoors that involves contact with people who are not members of their household. Note, it is hard to reconcile this last component with statements that small groups of vaccinated people are able to get together unmasked.

2. CDC finds real-world proof that vaccinations reduce hospitalizations in older people: Clinical trials on vaccines already led experts to believe they would reduce coronavirus hospitalizations in older people. Now, we have real-world evidence. In a new assessment released Wednesday, the Centers for Disease Control and Prevention found that fully vaccinated people 65 and older were 94 percent less likely to be hospitalized from COVID-19 than unvaccinated people of the same age.

3. J&J vaccine- The CDC and FDA have lifted the national “pause” on use of the Johnson and Johnson (J&J) Janssen COVID-19 vaccine and recommend that use of this vaccine resume for people 18 years of age and older.

There are no new recommended restrictions on use based on age, gender. The risk of clots is less than that of birth control pills.



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4. For the Scientists on New Castle:

Middle Seats: Bad. Airport-Based Testing: Good

The covid-19 pandemic has changed our way of life for over a year. Few industries have been harder hit than the travel sector. Two new studies appearing in the US Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly Report* shed light on related areas of interest: Whether or not banning the use of middle seats might have any effect on viral transmission and airport-based testing for SARS-CoV-2.

The first study modeled the effect of empty middle seats on SARS-CoV-2 exposure on a commercial airliner. Recent real-world literature already suggests the obvious: the further someone is seated from a SARS-CoV-2 source patient on a plane, the lower their chances of picking up the infection; 75 percent of those infected on a flight were seated within two rows of the source individual. This new study was, in essence, a model that used a surrogate for SARS-CoV-2 in order to estimate the effect of removing people in middle seats. The researchers found that in their model of a plane with a single-aisle configuration (3 seats, one aisle, 3 seats, the typical layout of a Boeing 737 or Airbus 319 or 320), removing middle seat passengers would reduce exposure to the passengers near an infected source individual by around 23 percent. For two-aisle configurations (including large jumbo jets such as Boeing 777s and Airbus 380s), the reduction in exposure by banning middle seat occupants would be closer to 57 percent. While this study supports what many of us might like to see during the pandemic (i.e. banning of middle seat use), it is important to note that this was a model of *exposure* only; the model did not capture whether that exposure would be synonymous with *infection*. Secondly, this was not a real-world trial that tracked infection rates in outbreaks occurring on real planes. Lastly, the effect of vaccinated versus unvaccinated travelers was not studied.

The second study looked at the effect of airport-based coronavirus testing in Alaska. If any US state had a good chance of understanding the effect of such an intervention, it would be Hawaii and Alaska, where entry to the state largely occurs via airports. In this case, officials monitored the number of positive SARS-CoV-2 tests that were picked up as part of testing regimens put in place during the re-opening phases of the pandemic. The testing program identified 951 SARS-CoV-2 infections during the period from June 6 to November 14, 2020, or around one out of every 406 arriving travelers. In general, the number of cases found at airports mirrored that in the state, implying that false positives were not driving these numbers. While 951 cases may not sound like much, realize that during that period only around 21,500 total infections were detected in Alaska. Depending

on when in the course of the 951 travelers' infections the airport-identified cases were found, thousands of downstream cases may have been prevented, and many hospitalizations and deaths.

Of note, Alaska has had a far lower number of excess deaths than most US states, even adjusting for its small population. Some of that may result from geographic advantages; Alaska does not have a high population density. But at least some of that may be a result of its relatively intense testing at its major ports of entry. In the coming months, some nations around the world will continue to have low vaccination rates. However, rather than relying on hygiene theater (highly conspicuous "deep cleanings" of surfaces) or largely useless symptom checklists which hinge on the honor system and also completely fail to detect asymptomatic disease, many countries could reap a substantial benefit in limiting new infections by more rigorous testing at their borders.

– [Jeremy Samuel Faust, MD, MS, MA](#)
Editor-in-Chief

Long Hauler' Study Shows Covid Can Kill Months After Infection

By [Jason Gale](#)

Bloomberg.com, reported by the NH Medical Society

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One of the largest studies of Covid-19 “long haulers” has proved what many doctors suspected: Not only are many patients suffering a raft of health problems six months after infection, they’re also at significantly greater risk of dying.

Survivors had a 59% increased risk of dying within six months after contracting the SARS-CoV-2 virus, researchers reported Thursday in the journal Nature. The excess mortality translates into about 8 extra deaths per 1,000 patients -- worsening the pandemic’s hidden toll amid growing recognition that many patients require readmission, and some die, weeks after the viral infection abates.

“When we are looking at the acute phase, we’re only pretty much looking at the tip of the iceberg,” said [Ziyad Al-Aly](#), chief of the research and development service at the St. Louis VA Medical Center in Missouri, who led the study. “We’re starting to see a little bit beneath that iceberg, and it’s really alarming.”

Al-Aly and his colleagues documented the cascade of debilitating effects that plague survivors months after diagnosis, from blood clots, stroke, diabetes and breathing difficulties to heart, liver and kidney damage, depression, anxiety and memory loss. They also found the risk of complications was far higher than with the flu.



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Globally, more than 143 million people have tested positive for Covid-19, and more than 3 million have died from the disease. Some studies indicate about 10% of patients may become so-called long haulers.

Al-Aly and colleagues used the U.S. Department of Veterans Affairs national health-care databases -- the largest nationally integrated health-care delivery system in the U.S. -- to examine diagnoses, medication use and laboratory test results from 73,435 non-hospitalized and 13,654 hospitalized patients up to six months after they had recovered from an acute case of Covid-19.

Covid survivors were more likely to require assistance for additional medical problems than almost 5 million users of the Veterans Health Administration system who didn't have Covid-19 and weren't hospitalized. These included:

- respiratory conditions
- nervous system disorders
- mental health problems
- metabolic and cardiovascular disorders
- malaise
- fatigue
- musculoskeletal pain
- anemia

Individuals experiencing long-term symptoms also showed an increased use of various medications, including antidepressants and drugs to treat anxiety and pain.

“We worry about potential spikes in suicide or potential spikes in overdose of opioids,” Al-Aly said in a Zoom interview.

Covid-19 patients who survived hospitalization were found to have a 51% increased risk of dying compared with 13,997 influenza patients who also had been hospitalized.

Al-Aly, who is also an assistant professor of medicine at the Washington University School of Medicine, said he hoped the research would provide a roadmap to inform health-system planning and care strategies to mitigate chronic ill health among Covid-19 survivors, especially in the U.S.

“Let’s not act surprised two years down the road, when people start committing suicide,” he said.
“We did not do very well preparing and dealing with Covid. Let’s not make that mistake a second time.”

Yours in Health,

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