

# RETURN

work | school | sports

## Long Covid

- The majority of people with long Covid report fatigue as the most common problem, as well as muscle aches, difficulty sleeping, and shortness of breath.
- A discreet, smaller group reports mainly respiratory symptoms, including shortness of breath and chest pain or tightness.
- Cognitive problems, “brain fog,” and neurological issues ranging from memory loss to episodes of psychosis are reported as well.
- In some cases, the persistent symptoms prevent people from returning to work full-time or at all, true disability.
- It is unknown whether a person who suffers an infection after vaccination has more protection against long Covid, but some scientists are hopeful.
- Vaccination will decrease the incidence of long Covid and its disability in that it prevents infection.

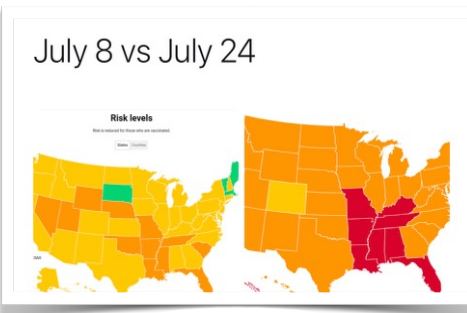
## Delta Blues

*“Lumping [unvaccinated individuals] into a category of people that are 'defiant' or 'stupid' or some other thing is probably not helpful. It only seeks to alienate people.” —Andy Slavitt*

Vaccination is the surest way to protect yourself against infection with SARS-CoV-2 and the disease COVID-19. The choice we have is not “vaccinate or not”, but instead “vaccinate or eventually become infected”, and the statistics of not only death (over 4 million dead globally) but more importantly disability from COVID-19 are grim.

Our biggest concern right now is the volume of misinformation on vaccination. Misinformation tactics include the use of unqualified experts, logical fallacies, inaccurate math, impossible expectations, cherry picked data, anecdotal stories, and conspiracy theories. Just being organized and well-spoken does not make an expert—and it’s frustrating to watch the videos and posts and realize that some people, good people, are listening and hearing it as “fact”. I agree with Andy Slavitt today.

There’s a lot we don’t know, and we’ll only know more as time allows: it’s a *novel* coronavirus. One to One Health strongly advises vaccination in the absence of allergic reaction or other medical exemption for everyone 12 years and over. On the next



page you’ll read why Delta matters, and as you can see, it’s affecting our Mississippi basin right now. Protect yourself and your workspace, and avoid COVID-19.



## School buses

- From an independent school in Virginia: COVID-19 doesn't spread during student transport when employing mitigation *including simple ventilation, and universal masking*, at minimal physical distances and during the highest community transmission.
- There were 39 cases of COVID-19 including 37 students, one driver, and one aide present on buses during their infectious period of COVID-19, but there were no student-to-student, no adult-to-student, and no student-to-adult transmissions.
- Per Akiko Iwasaki: Every school bus in the country should be adhering to these guidelines to avoid COVID transmission. We agree—they support and add to the protocols which we developed last year.
- Shuttle buses and public transportation should adopt these policies as well. Airborne transmission of COVID-19 within a bus with recycled air, among unmasked passengers, was believed to have contributed to a COVID-19 outbreak in eastern China, and bus riders were noted to have become infected even if seated far away from the infected person.

**Why Delta variant matters**—After vaccination and the initial response, memory B and T cells are produced that will rapidly respond to the same pathogen. They can be greatly amplified in a short time to meet the needs of infection. Vaccination does not provide sterilizing immunity—you will get infected—your ability to mitigate the incoming infection is mediated by how much virus you encounter. If an individual encounters too much virus, their immune system will not be able to fully control replicating virus. In other words, the greater the number of viral particles you encounter, the greater the chance that you overwhelm vaccine-induced immunity. It's like playing a team that has more players than your team does. It is not an absolute yes/no in terms of protection—that's why the vaccines are not 100%.

The delta variant of SARS-CoV-2 produces a larger viral load early and for a longer time before a person knows they are sick than the original Wuhan variant. Infected individuals pose risk to people who are vaccinated because they transmit a large dose of viral particles. Steps that mitigate the exposure to virus will translate to better protection for all.

While you are less likely to die from infection if vaccinated, you can still get sick, miss work, and even transmit disease in some cases, especially to the unvaccinated (like your kids).

If you have previous infection and no vaccination, your immune response to reinfection is variable and unpredictable. Data indicates that the protection from Delta is not as good as vaccines—less than 50% of antibodies at 12 months—and reinfection rates of infected individuals are greater than the vaccinated population.

**Vaccines work**— Delta (B.1.617.2) makes up ~60% of Italy's cases, and the vaccines in use include Pfizer, Moderna, AstraZeneca, and Johnson & Johnson. Real-world data out of Italy on overall vaccine effectiveness shows prevention of:

- Symptomatic Infection: 88% [87.9-88.4%]
- Hospitalization: 95% [94.6-95.2%]
- ICU Admission: 97% [96.5-98.0%]
- Death: 96% [95.6-96.5%]

Real world numbers above correlate with what we are seeing in the U.K. and Canada. If you've not gotten your vaccine, resume previous mitigation tactics to prevent getting COVID-19. And consider vaccination.

Stay healthy, Lisa and David

