

# RETURN

work | school | sports

## Air travel

TSA data showed that 1,191,123 travelers passed through airport checkpoints nationwide Wednesday, the most since March 16, when more than 1.2 million people got on planes as the coronavirus was first taking hold in the United States.

## COVID cars

Cars and the Coronavirus are two things that have not meshed well. A car that is just sitting around can become a "COVID Car", according to a repair shop owner in Buffalo, NY. He has seen a number of cars with issues like rotting brakes, dead batteries, and other signs of neglect that he attributes to work-from-home habits since the beginning of the pandemic. He recommends driving around a few times a week to avoid the problem.

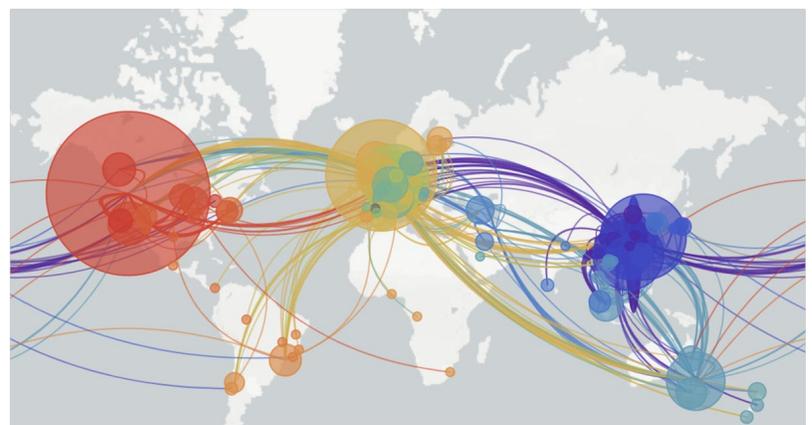
## Car travel

Always wear a mask when you leave your car, and carry sanitizing wipes to wipe down door handles and knobs and toilets at the rest area or gas station. Wash hands well in the restroom, and use sanitizer when you re-enter your car.

## Strains, planes, and automobiles

*"COVID-19 puts unprecedented strain on US health system"*

So goes the headline from March 17, 2020. Not much has changed. With the current surge of cases and increasing numbers of sick people in the hospital, health care workers are fatigued, and they now need to make time to receive the vaccine AND help give it to others. And it's the holiday season.



Just to make things interesting, the reports out of the UK this week concern a new...strain? a mutant? a more easily spreading variant? Again, words make a difference and the way that scientists define the changes that occur in a virus is important. Even some reference sources can get them wonky, so we should do our best to keep them straight. We'll go through the definitions to help you to make sense out of what you hear and what you read. With the constant flux of new information, it remains important to read and watch critically.



## Vaccines et cetera

- Whether you are offered the Pfizer or the Moderna vaccine, each can have untoward reactions, most commonly pain at the injection site. Very few people have reacted poorly or had allergic reactions.
- As with most of the hospital staff that desired vaccination, we have both received our vaccines. Neither of us had problems (although Lisa's arm hurt for two days and had some faint discoloration). We will receive our boosters in three more weeks.
- Local health departments have a fair amount of variability in how they are interpreting the CDC guidance for who is in which phase. Stay abreast as to what is going on in your area.
- The World Health Organization designated this Sunday as the first International Day of Epidemic Preparedness.
- It was called for by the United Nations General Assembly "to advocate the importance of the prevention of, preparedness for and partnership against epidemics." One to One Health will continue to offer their services for ongoing management of the SARS-CoV-2 pandemic and for future planning in the workplace and schools.

**The new UK variant is named VUI-202012/01**—the first “Variant Under Investigation” in December 2020, and is defined by about 20 mutations. SARS-COV-2 is the strain, and these new mutations are variants of that strain. Got it? Let’s go into the process further:

**Viral Strain:** a subgroup of a family of viruses that displays new proteins enough so that the *behavior* is substantially changed, like SARS-CoV was a new strain in 2002 that caused SARS and now we have SARS-CoV-2 that causes COVID-19.

**Viral Variant:** a virus that has replicated and changed *by mutation* its RNA sequence as little as one nuclear base, but has no significant change in surface proteins or its behavior in the environment. The variant from the UK has no significant change in its behavior from the novel coronavirus we have come to know this year.

**Mutation:** when something changes as it is replicating (the word for the way a virus reproduces). Viruses survive through mutation. Mutations sound scary and ‘unnatural’ - think X-men. In reality, it’s a normal and expected process. It happens thousands of times within each person infected with a virus. It is a random act, rather than a deliberate act of survival.

With the shut-down looming in the UK, many people packed into the pubs and markets, increased their exposures and the density of the spaces occupied, predictably increasing spread. The more spread, the more viral copies made, the more mutations occur, and the more that new variants are created. And so it goes on, with the new variant increasingly transmitting. Attributing increased ability to spread to the new variant may not be correct, and we must be careful calling this variant a new *strain* without controlling for these variables. Over 20 variants of SARS-CoV-2 have been studied thus far, and all are susceptible to the current vaccines approved in the US.

One important opinion from experts: if mutation happens enough to alter the spike protein to a point that the vaccines would not be effective, the spike would not be able to bind to the ACE-2 receptors, and the virus would be rendered non-infectious to our human cells.

Mutation could offer the virus an advantage - which may be what is happening in the United Kingdom. With many variables in play, it is too early to assume it is so.

Until next week, Lisa and David

