

## PRINT-Incidental Illness and COVID-19 Vaccination: Don't Automatically Connect the Dots

Safety data from the Centers for Disease Control and Prevention (CDC) shows allergic reactions to COVID-19 vaccines are rare – including the most severe – anaphylaxis shock – [which occurred in 2 to 5 people for every one million doses](#) of the Pfizer vaccine given. The reaction, while serious, is treatable.

But if you spend any time on social media, you might get a different impression about the safety of COVID-19 vaccines.

Among the top trending stories are anecdotes that link illnesses, and in some cases death, to someone having received the Pfizer or Moderna vaccine for COVID-19. It is human nature for people who already have a fear of the unknown to believe negative stories associated with the vaccine, explains Leon Yeh, M.D., vice president of Hospitalists, Emergency Services and Diagnostic Medicine for OSF HealthCare.

It's what's referred to as the availability bias – the human tendency to think that examples of things that come readily to mind are more representative than is actually the case. Dr. Yeh says social media anecdotes exaggerate our perception of risk and plays against actual data which demonstrates the vaccine is safe and that there is far more benefit than harm from getting the vaccine.

According to Dr. Yeh, what people should know is that they might feel pretty crummy after their shots, particularly after receiving their second dose. Such reactions [are a normal sign that your body is building protection](#).

The Centers for Disease Control and Prevention outlines the most common symptoms: Pain at injection site (84.1%), Fatigue (62.9%) Headache (55.1%) Muscle pain (38.3%) and Chills (31.9%).

Another connection between the COVID-19 vaccines and negative health effects being circulated on social media involves [Bell's palsy](#), which causes one side of a person's face to droop temporarily. There isn't a whole lot known about what triggers Bell's palsy. In clinical trials, this temporary paralysis happened slightly more often in vaccinated people than in those who got the placebo, though Dr. Yeh points out, some people will wrongly conclude the vaccine is a direct cause.

"The trials that were done, out of almost 40,000 patients, there were really only just a handful of patients that developed Bell's palsy. So that basically mirrors what we would expect for incidence in the general population anyway. Again, it goes back to understanding data and statistics and that's not something that we, as human beings, are really good at." He added, "We tend to overestimate these risks when we hear about them."

As the availability of COVID-19 vaccinations continues to expand, particularly for those 65 and older, many with underlying health conditions, there will be a greater number of incidental negative health events such as a heart attack. Dr. Yeh reminds us that every day people die unexpectedly or have a sudden seizure or stroke but surveillance data to date shows there is no evidence those were caused by receiving the Pfizer or Moderna vaccine.

“Even aside from the vaccine, we expect there to be some unfortunate things happening to people and the vaccine is not necessarily the cause but it’s very easy for us to make that link.”

That was the case when home run legend Hank Aaron died at age 86, two weeks after he received the Moderna COVID-19 vaccine. There’s no evidence of a direct link and the medical examiner said Aaron died of natural causes. But, for people who are already afraid, it is hard to grasp the idea that problems that happen after vaccination, even death, likely are not tied to the immunization.

Dr. Yeh agrees with other experts that giving people a comparison that makes sense can help put the risk in perspective. For example, [the risk of getting hit by lightning](#) (1 in 500,000) is significantly higher than the risk of going into shock after being vaccinated against COVID-19.

“The CDC and FDA are both compiling information on side effects and outcomes so we have even better data about it. And then, I think it would help if we continue to have a constant dialogue about what we are seeing so that people understand the true outcomes and the true data.”

Dr. Yeh hopes as more data is collected and outcomes are shared regularly through trusted health experts more people will have confidence that the COVID-19 vaccine is safe and effective.