

Study finds in-person sporting events do not lead to significant COVID-19 community spread

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Credit: Georgia Institute of Technology

Sports fans will soon begin to return to stadiums, but many question the safety of having fans in stands. During the 2020 NFL and NCAA football seasons, there was heightened concern around the risk of COVID-19 spread as a result of attendance at games. Now, researchers from the Georgia Institute of Technology, Harvard University, and Boston Medical Center led a study to explore whether limited in-person attendance of NFL and NCAA football games caused a substantial increase in COVID-19 cases. This research study analyzed data from 528 games that had spectators in the stadiums. It found that games with limited attendance did not cause a spike in COVID-19 cases.

The researchers sought to estimate the impact of NFL and NCAA games with attendance by monitoring trends for new reported COVID-19 cases up to 14 days after a [game](#). The effects were quantified by comparing daily changes in COVID-19 cases per 100,000 residents in counties

that had held games with limited in-person attendance with those that did not hold games or had no attendance.

Of the 796 NFL and NCAA games played from August 29, 2020 through December 28, 2020, 528 had in-person attendance. NFL games during that timeframe had a median of 11,133 attendees. Data indicates that only an average of less than five daily new cases of COVID-19 were reported up to 14 days after the sporting events.

Researchers concluded that the NFL and NCAA games with limited in-person attendance, mask use, and physical distancing measures did not lead to a significant increase in COVID-19 cases in the counties where they were held.

"Before conducting the study, our conjecture was that football games would cause an explosion in the number of cases. However, it turns out that this is not the case, and the games did not lead to a major increase in the number of cases," said Turgay Ayer, associate professor and the George Family Foundation Early Career Professor in Georgia Tech's H. Milton Stewart School of Industrial and Systems Engineering.

The study published in medRxiv is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

More information: Asmae Toumi et al. The Effect of NFL and NCAA Football Games on the Spread of COVID-19 in the United States: An Empirical Analysis, *medrxiv* (2021). [DOI: 10.1101/2021.02.15.21251745](https://doi.org/10.1101/2021.02.15.21251745)

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