

Vaccines effective against Delta variant

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COVID-19 vaccines are effective at preventing hospitalizations and emergency department visits caused by the Delta variant, according to data from a national study. That data also indicate that Moderna's vaccine is significantly more effective against Delta than Pfizer and Johnson & Johnson.

"These real-world data show that vaccines remain highly effective at reducing COVID-19 related hospitalizations and emergency department visits, even in the presence of the new COVID-19 variant," said study author Shaun Grannis, M.D., M.S., Regenstrief Institute [vice president](#) for data and analytics and professor of medicine at Indiana University School of Medicine. "We strongly recommend vaccinations for all who are eligible to reduce serious illness and ease the burden on our healthcare system."

The Centers for Disease Control and Prevention (CDC)'s VISION Network analyzed more than 32,000 medical encounters from nine states during June, July and August 2021, when the Delta variant became the predominant strain. The results showed that unvaccinated individuals with COVID-19 are 5-7 times more likely to need emergency department care or hospitalization, similar to the overall effectiveness prior to the

variant.

The study in Morbidity and Mortality Weekly Report is also the first analysis from the VISION Network to show a marked difference between the effectiveness of the mRNA vaccines (Moderna and Pfizer). In the study's time period:

- Moderna was 95 percent effective at preventing hospitalizations among adults ages 18 and older.
- Pfizer was 80 percent effective at preventing hospitalizations among adults ages 18 and older.
- Johnson & Johnson was 60 percent effective at preventing hospitalizations among adults ages 18 and older.

The study also found that [vaccine](#) effectiveness is lower for people 75 years and older, which has not been shown in previous research. This could be due to a range of factors, including the increased time since vaccination.

When it came to preventing emergency department and urgent care visits, analysis showed that:

- Moderna was 92 percent effective.
- Pfizer was 77 percent effective.
- Johnson & Johnson was 65 percent effective.

Scientists say these findings need further monitoring and evaluation.

"Despite the differences in effectiveness, vaccines continue to offer much more protection than not getting one at all," said Dr. Grannis. "While breakthrough cases do happen, data shows the symptoms are less severe. The vast majority of COVID hospitalizations and deaths continue to be among unvaccinated individuals. COVID-19 vaccines are powerful tools for combating the pandemic."

Provided by Regenstrief Institute

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