

# COVID-19 Vaccine Safety & Effectiveness: How to Address IVF Patients' Questions and Concerns



**Jennifer L. Lighter, MD**  
Hospital Epidemiologist, NYU  
Langone Health  
Pediatric Epidemiologist and  
Pediatric Stewardship  
Director  
Assoc. Professor of Pediatric  
Infectious Diseases  
NYU School of Medicine  
New York, NY

The impact of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and the resultant coronavirus disease-2019 (COVID-19) is tremendous and unprecedented. As of the autumn 2021, we may be past the worst of it, with vaccination roll out including availability to children, oral antivirals on the horizon and vaccination boosts availability to vulnerable populations. However, many unvaccinated individuals remain at risk of COVID infection, and will likely become infected at some point without immunization.

Data from several studies show all three approved vaccines are extremely effective at preventing severe COVID, even six months after initially given. However, individuals at risk of severe COVID due to morbidities or older

age, should receive a booster shot. Data to date suggest any of the approved vaccines will boost antibody levels and are safe, yet there is not enough data yet to suggest one vaccine platform over another for boost.

Women who present for fertility treatments should be counseled on the safety and benefits of COVID vaccination and offered immunization. Data on the evaluation of follicular function does not appear to be altered by either COVID infection or vaccination, and COVID immunization will protect the woman from prenatal morbidity which can occur from COVID infection.

To date, only a third of pregnant women had received a COVID vaccine. We need to increase these numbers, as pregnant women are at risk of severe COVID and preterm delivery. Vaccinating women during pregnancy not only protects the mother from severe COVID, but the newborn as well, as high levels of antibody were detected in cord blood after maternal vaccination. If pregnant women are more than six months from a mRNA vaccine or two months from the adenoviral-vector vaccine, they should receive a booster shot.