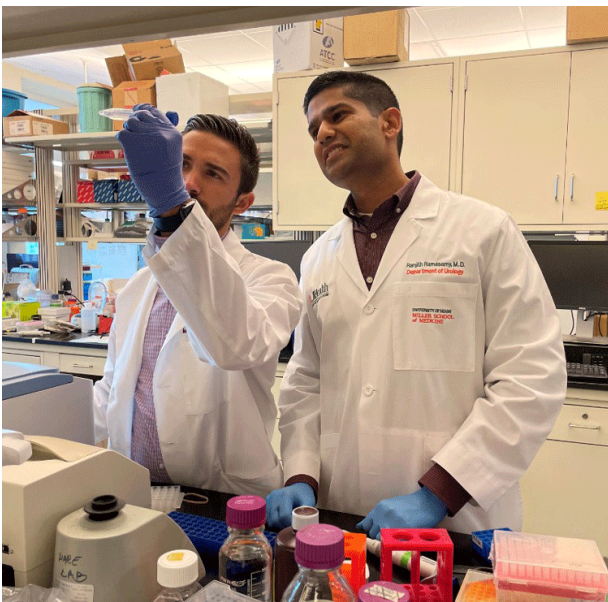


# Miller School Study in JAMA Shows COVID-19 mRNA Vaccines Do Not Impact Male Fertility

The Pfizer and Moderna mRNA COVID-19 vaccines are safe for male reproduction, according to a new study by University of Miami Miller School of Medicine researchers published in *JAMA*, the most widely circulated general medical journal in the world.



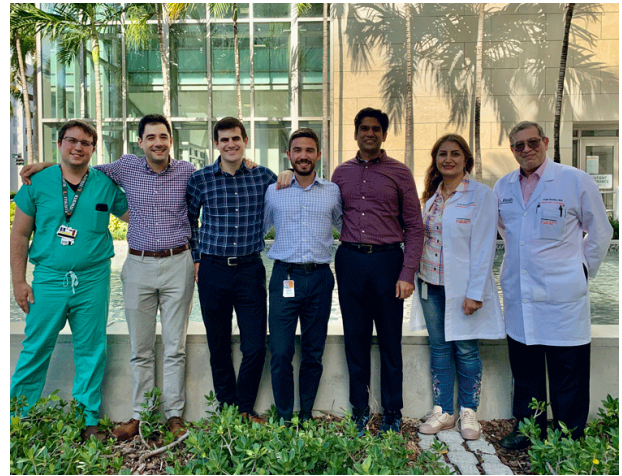
Daniel C. Gonzalez, left, and Dr. Ranjith Ramasamy.

Original clinical trials of the mRNA vaccines BNT162b2 and mRNA-1273 did not evaluate the vaccines for reproductive toxicity, according to the study's senior author, Ranjith Ramasamy, M.D., associate professor and director of the Miller School's Reproductive Urology Program.

“Vaccine hesitancy is a barrier to ending the COVID-19 pandemic, and we believe some of that hesitancy is due to public opinion about whether the vaccine might negatively affect fertility,” Dr. Ramasamy said. “We were the first to demonstrate that the COVID virus, itself, can affect male fertility and be a potential cause for erectile dysfunction. We are now the first to examine if there is any impact of the COVID vaccine on male fertility potential, which we did not find.”

Dr. Ramasamy and Miller School colleagues studied 45 healthy male volunteers between ages 18 and 35. The volunteers, who had no fertility issues at the study’s start, provided a semen sample before receiving the first dose of either the Pfizer or Moderna vaccine and provided another sample about 70 days after the second dose.

“This is the full life cycle of sperm and 70 days is sufficient time to see if the vaccine impacts semen parameters,” said Daniel C. Gonzalez, a medical student at the Miller School and the study’s first author. “We measured semen volume, sperm concentration, and the total amount of moving sperm and found there were no declines in any of the parameters as compared to the baseline analysis.”



From left, Dr. Ruben Blachman-Braun, Dr. Daniel Nassau, Dr. Jesse Ory, Daniel Gonzalez, Dr. Ranjith Ramasamy, Dr. Kajal Khodamoradi, and Dr. Emad Ibrahim.

The findings suggest the Pfizer and Moderna vaccines do not impact male fertility, which could have huge implications for lowering vaccine hesitancy, according to Dr. Ramasamy.

The researchers did not study the single-dose Johnson and Johnson COVID-19 vaccine.

Other authors from the Miller School include Daniel E. Nassau, M.D., a fellow in reproductive urology; Kajal Khodamoradi, Ph.D., clinical research associate; Emad Ibrahim, M.D., assistant professor of urology and neurological surgery; Ruben Blachman-Braun, M.D., a urology resident; and Jesse Ory, M.D., a fellow in reproductive urology.

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