

# Study indicates COVID-19 vaccines are safe for organ transplant patients

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In what may be the first study of its kind, Johns Hopkins Medicine researchers have documented the reaction of nearly 200 solid organ transplant recipients to their first vaccine inoculation against SARS-

CoV-2, the virus that causes COVID-19. The findings, they say, provide evidence that both the Moderna and Pfizer/BioNTech messenger RNA (mRNA) vaccines can be safely given to this immunocompromised population.

The study was posted online Feb. 5, 2021, in the journal *Transplantation*.

To better understand the safety of the SARS-CoV-2 mRNA vaccines for [transplant patients](#), the researchers studied 187 [transplant](#) recipients who received an initial dose of either the Moderna or Pfizer/BioNTech vaccines between Dec. 16, 2020 and Jan. 16, 2021. The study participants were recruited by invitation through their transplant centers or [social media](#).

Fifty-two percent (97) were kidney transplant recipients; 19% (35) were liver; 14% (26) were heart; 9% (17) were lung; 3% (six) were kidney and pancreas; and (six) were other multi-organ recipients. The median age was 48; 69% (129) were female, 87% (163) were white; and 6% (11) were Hispanic or Latino. Vaccinations occurred at a median of six years following transplant surgery. All were receiving immunosuppression medications to prevent rejection of their transplanted organs.

Between the time of their vaccination and study participation (which consisted of completing a detailed questionnaire one week after they received the [vaccine](#)), there were no diagnoses of SARS-CoV-2 infections.

Few of the transplant recipients in the study had systemic adverse reactions, such as fever (seven, or 4%) and chills (17, or 9%), to the Moderna and Pfizer/BioNTech vaccines—statistics that were similar to those seen for participants in the large, randomized clinical trials that validated the safety of the two prophylactic treatments. The majority of the transplant recipients reported local reactions, including mild pain at

the site of inoculation (114, or 61%), mild redness (13, or 7%) and mild swelling (30, or 16%).

Additionally, the researchers say, organ rejection—a common concern about vaccinating transplant recipients—did not occur.

"We hope to further this research by exploring any unexpected safety issues with long-term follow-up studies of these patients in the future," says Jacqueline Garonzik Wang, M.D., Ph.D., associate professor of surgery at the Johns Hopkins University School of Medicine and study senior author.

"These insights are critical toward protecting the lives and quelling the fears of [transplant recipients](#) who might be hesitant about getting the SARS-CoV-2 vaccines," says study co-author Dorry Segev, M.D., Ph.D., the Marjory K. and Thomas Pozefsky Professor of Surgery and Epidemiology and director of the Epidemiology Research Group in Organ Transplantation at the Johns Hopkins University School of Medicine.

**More information:** *Transplantation*,  
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