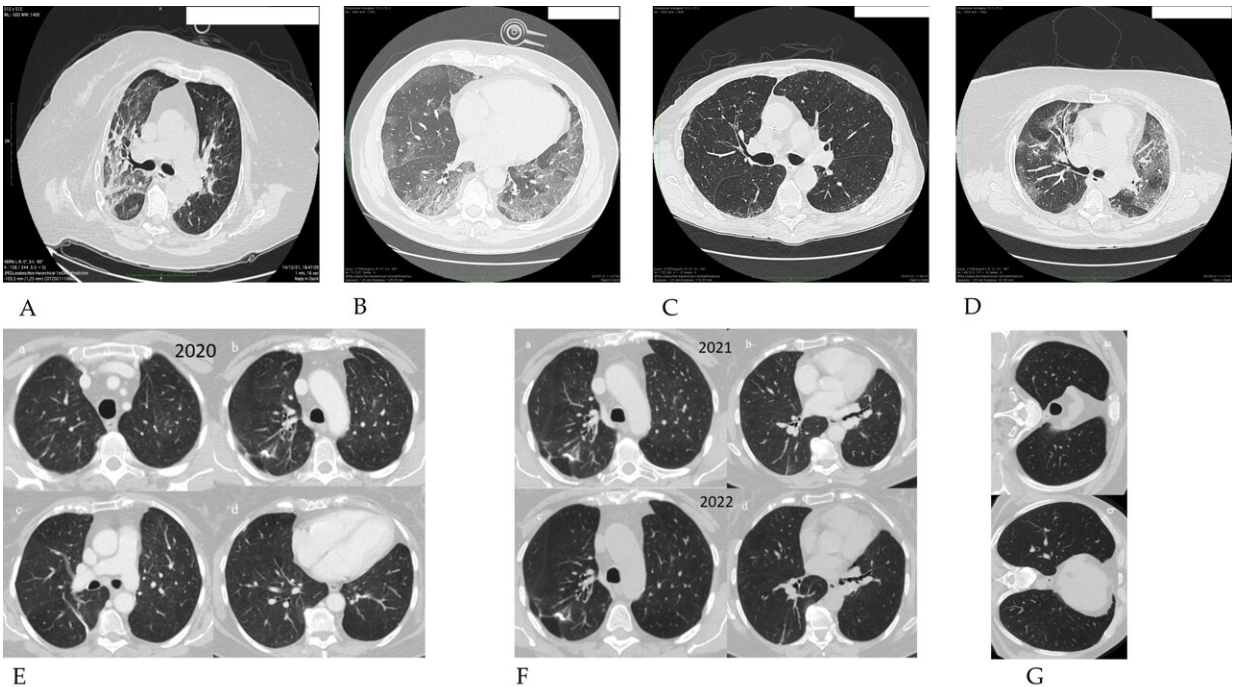


# Study finds antibiotics combat gut bacteria that contribute to the pathogenesis of COVID-19

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Chest images of completely vaccinated sick moderate patients with SARS-CoV-2. Panel A-D: Four cases of vaccinated patients with pneumonia, no previous antibiotic use before hospital admission. Credit: *Journal of Medical Virology* (2024). DOI: 10.1002/jmv.29507

New research indicates that antibiotics can effectively target bacteria in

the gut that harbor the virus that causes COVID-19 and produce toxin-like peptides that contribute to COVID-19-related symptoms.

In the study, which involved 211 participants and was [published](#) in the *Journal of Medical Virology*, individuals who received early [antibiotic treatment](#) after having COVID-19 recovered more quickly than those who did not receive antibiotics.

The authors had already evaluated the efficacy of certain antibiotics in SARS-CoV-2-infected bacterial [cultures](#) in vitro, and this new study demonstrates promising results with the use of the combination of two antibiotics (amoxicillin and rifaximin) within the first three days.

Furthermore, a significant number of patients who received antibiotics within the first three days and for a duration of seven days during the acute phase of COVID-19 did not develop long COVID.

"Our findings suggest that antibiotics should be considered in acute infection and Long COVID. The study also lays the foundation for additional vaccine strategies," said co-corresponding author Marina Piscopo, Ph.D., of the University of Naples Federico, in Italy.

**More information:** Carlo Brogna et al, A retrospective cohort study on early antibiotic use in vaccinated and unvaccinated COVID-19 patients, *Journal of Medical Virology* (2024). [DOI: 10.1002/jmv.29507](https://doi.org/10.1002/jmv.29507)

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