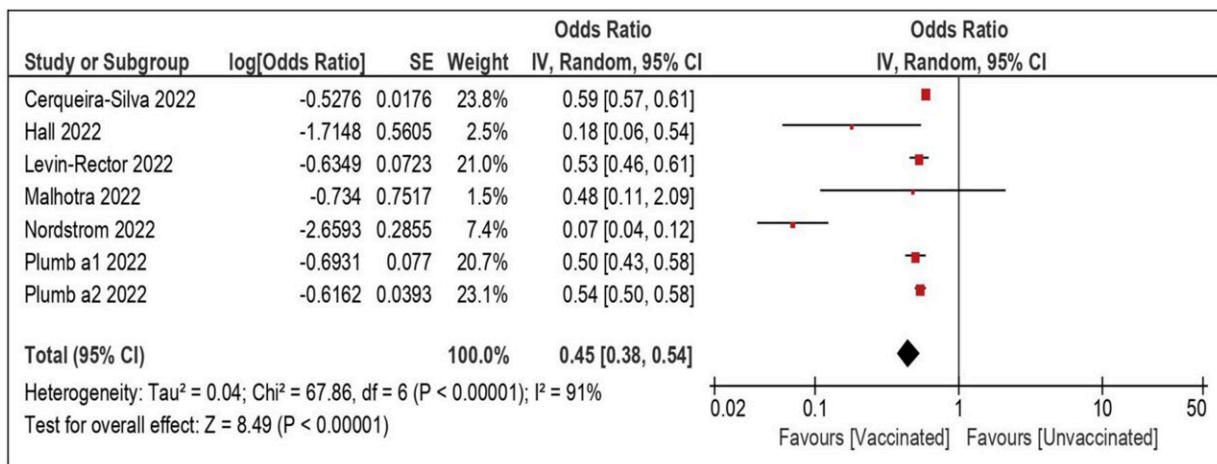


# COVID-19 vaccines halve the risk of reinfection, study finds

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Risk of severe/lethal COVID-19 among vaccinated vs. unvaccinated subjects.  
 Credit: *Frontiers in Medicine* (2022). DOI: 10.3389/fmed.2022.1023507

Among those who have recovered from a coronavirus infection, vaccinated people have a halved risk of becoming infected a second time or contracting COVID-19 again with severe symptoms compared to those who are not vaccinated.

These findings were revealed in an analysis published in the journal *Frontiers in Medicine*, which was coordinated by Lamberto Manzoli, medical epidemiologist as well as Director of the School of Public Health and Hygiene of the University of Bologna.

"Our results confirm that, among the recovered, those who have received two or three doses of vaccine have a 50% to 60% lower risk of [reinfection](#) than those who are not vaccinated," explains Professor Manzoli.

"Considering that the number of people who recovered is now in the hundreds of millions worldwide, these results appear particularly encouraging and provide strategic information for future pandemic control policies."

The study also involved scholars from the University of Ferrara and the Sapienza University of Rome and was carried out by collecting and analyzing data from 18 studies conducted in different parts of the world and including a sample of overall 18 million people.

Scholars evaluated several aspects of COVID-19 reinfection through a series of analyses of the data collected. These included differences between people vaccinated with two and three doses, the persistence of protection 12 months after the last infection, and the severity and contagiousness of different variants.

Two main results emerged. One shows that vaccination halves the likelihood of COVID-19 reinfections compared to natural immunity alone obtained with a recovery from the virus. Moreover, data show that even if a second infection occurs, the likelihood of developing [severe symptoms](#) is halved in vaccinated people. Similar levels of protection were observed in people vaccinated with only one dose, even for the omicron variant and up to 12 months since the last infection.

"It is worth noting that vaccines have reduced a thankfully already low risk: in absolute terms, the number of reinfections may seem worrying, but cases of severe or fatal COVID-19 symptoms among people who have already recovered once are relatively infrequent: less than 1 in

1,000," adds Manzoli. "These findings can thus be useful for planning specific immunization strategies for people who have already contracted the coronavirus."

**More information:** Maria Elena Flacco et al, COVID-19 vaccines reduce the risk of SARS-CoV-2 reinfection and hospitalization: Meta-analysis, *Frontiers in Medicine* (2022). [DOI: 10.3389/fmed.2022.1023507](https://doi.org/10.3389/fmed.2022.1023507)

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