

# Dengue Versus COVID-19: Long-Term Health Risks

<https://www.emjreviews.com/microbiology-infectious-diseases/news/dengue-versus-covid-19-long-term-health-risks/>



A NEW population-based study led by Nanyang Technological University (NTU), Singapore revealed that survivors of dengue fever face significantly higher risks of long-term cardiovascular and neuropsychiatric complications compared to those who recovered from COVID-19.

Utilising national testing and healthcare claims databases, the team built a retrospective cohort of 11,707 adults in Singapore with confirmed dengue infections and over 1.2 million adults with COVID-19 (Delta and Omicron variants of the SARS-CoV-2 (<https://www.emjreviews.com/microbiology-infectious->

[diseases/article/epidemiological-features-of-the-molecular-surveillance-of-sars-cov-2-in-northern-greece-the-experience-of-a-regional-hospital/](#)) virus) between July 2021–October 2022. The majority of infections in both groups were mild and did not require hospitalisation. Risks of new-incident cardiovascular, neuropsychiatric, and autoimmune complications 31–300 days post-dengue or post-SARS-CoV-2 infection were estimated using Cox regression.

The findings indicate that dengue survivors had a 21% increased risk of developing any post-acute health complications within 31–300 days after infection compared to COVID-19 survivors (95% CI: 1.06–1.38). Notably, the risk of cardiovascular complications was 55% higher in dengue survivors (95% CI: 1.27–1.89). Specific conditions such as heart rhythm disorders, ischaemic heart disease, and thrombotic disorders were significantly more common in the dengue group. The study also identified heightened risks for neuropsychiatric sequelae, including cerebrovascular disorders, memory and cognitive impairment, extrapyramidal/movement disorders, and anxiety disorders.

The study is one of the first to comprehensively compare the long-term sequelae of dengue and COVID-19. These results are particularly concerning given the seasonal and geographical prevalence of dengue, a mosquito-borne disease that is endemic in many tropical regions. As climate change potentially expands the regions at risk for dengue transmission, the implications of these findings could become increasingly relevant on a global scale.

The authors advocate for increased awareness and monitoring of long-term health in dengue patients, especially in low- and middle-income countries with higher disease prevalence.

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## Reference

Wee LE et al. Dengue versus COVID-19: comparing the incidence of cardiovascular, neuropsychiatric and autoimmune complications. *J Travel Med.* 2024;31(5):tae081.