

In Children Long-COVID Lingers

Study reports the prevalence and consequences of [post-coronavirus disease 2019](#) (COVID-19) symptoms in children and young individuals up to 24 months post-infection.



Study

The study included a total of 12,632 children and adolescents from the CLoCk study who were 11 to 17 years old at the time of their initial [SARS-CoV-2](#) testing (between September 2020 and March 2021).

The participants were categorized into four groups according to their [infection](#) status over the period of 24 months. The first group included participants who never tested positive for SARS-CoV-2. The second group included those who were initially test-negative but subsequently tested positive. The third group included those who were initially test-positive but did not have reinfection later on. The fourth group included those who were initially test-positive and also developed reinfection later on.

Participants reported [long-COVID symptoms](#) and their consequences, which were examined at 3, 6, 12, and 24 months after the initial SARS-CoV-2 infection. To operationalize long-COVID in children, the study used the Delphi research definition, focusing on persistent symptoms and associated difficulties in daily functioning.

Findings

All study participants reported experiencing some symptoms 24 months after their initial infection. The most frequently reported symptoms were tiredness, trouble sleeping, shortness of breath, and [headaches](#).

A variation in symptom prevalence was observed between the study groups. While participants who never tested positive exhibited the lowest prevalence of symptoms, the highest prevalence was observed among participants who initially tested positive and later developed [reinfection](#).

The study groups also observed a variation in the total number of reported [symptoms](#). While 35% of participants who initially tested positive and subsequently developed reinfection reported no symptoms, 46% of participants who never tested positive for SARS-CoV-2 reported the same experience. However, even among the never-positive group, 14% experienced five or more symptoms, highlighting the non-specific nature of many symptoms reported.

Among participants who reported experiencing more than [five symptoms](#), about 14% were from the never-positive group, and 21% were from the initial test-positive and subsequent reinfection group.

Despite significant variation in symptoms, only a slight variation in self-rated health, symptom severity, and symptom impact was observed between the study groups at a 24-month timepoint. This finding raises questions about whether self-perceived [health](#) metrics can fully capture the burden of long-COVID in children.

Considering the demographic characteristics of participants, the study found that long-COVID is more common among [older participants](#), female participants, as well as socioeconomically deprived participants.

Participants who fulfilled the [long-COVID Delphi](#) research definition exhibited more difficulties, worse quality of life, and more tiredness than those who did not meet the long-COVID Delphi research definition.

Only 7.2% of the participants fulfilled the long-COVID Delphi research definition at 3-, 6-, 12-, and 24-month time points. These participants reported an average of five symptoms at 3 months, five at 6 months, six at 12 months, and five at 24 months post-infection. This consistent subgroup reflects a more severe and persistent [burden of symptoms](#), emphasizing the need for targeted support.

Considering vaccination status, the study found no apparent trend in the number of reported symptoms, health status, quality of life, and symptom impact or severity between [vaccinated](#) and unvaccinated participants at 24 months.

Conclusion

The study finds that a considerable proportion of children and [adolescents](#) (aged 11 to 17) consistently experience, on average, five symptoms over the period of 24 months post-SARS-CoV-2 infection, irrespective of their infection status during this period.

While the most commonly reported symptoms are tiredness, trouble sleeping, shortness of breath, and headaches, the participants less frequently report abdominal pain, concentration difficulties, and [muscle pain](#). Although reported by a minority, these less frequent symptoms can still significantly affect daily activities and warrant further attention.

The study used the long-COVID Delphi research definition to analyze symptoms, which, in contrast to the [World Health Organization](#) (WHO) definition, does not require symptoms to have arisen within the first three months of infection. It is the only definition currently being used for children and adolescents and is considered to be more powerful in capturing long-COVID symptoms, particularly for those who remained asymptomatic or unaware of having an infection during the acute SARS-CoV-2 infection phase.

Crucially, the study emphasizes that many of the reported symptoms are common in adolescents irrespective of their SARS-CoV-2 [infection](#) status, suggesting a potential overlap between long-COVID and general adolescent health issues.

Notably, the study could not find any significant variation in self-rated health, symptom severity, or symptom impact among children and adolescents with varying infection and vaccination status. Furthermore, the symptoms reported by participants are non-specific and often commonly reported in adolescents, even before the COVID-19 [pandemic](#).

Considering the findings, scientists highlight the need for further studies to understand the [pathophysiology](#), develop diagnostic tests, and identify effective interventions for long-COVID management in children and adolescents. In particular, longitudinal studies are essential to clarify the natural history of symptoms and their impact over time.

Source:

<https://www.news-medical.net/news/20241205/Long-COVID-lingers-in-children.aspx>