# Study Finds Cases of ME/CFS Increase Following SARS-CoV-2 Infection

4.5% of people who had COVID-19 met diagnostic criteria for myalgic encephalomyelitis/chronic fatigue syndrome.

January 20, 2025 By National Institutes of Health

---

New findings from the National Institutes of Health's (NIH) Researching COVID to Enhance Recovery (RECOVER) Initiative suggest that infection with SARS-CoV-2, the virus that causes COVID-19, may be associated with an increase in the number of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) cases. According to the results, 4.5% post-COVID-19 participants met ME/CFS diagnostic criteria, compared to 0.6% participants that had not been infected by SARS-CoV-2 virus.  RECOVER is NIH's national program to understand, diagnose, prevent, and treat Long COVID.

The research team, led by Suzanne D. Vernon, PhD, from the Bateman Horne Center in Salt Lake City, examined adults participating in the RECOVER adult cohort study to see how many met the IOM clinical diagnostic criteria for ME/CFS at least six months after their infection. Included in the analysis were 11,785 participants who had been infected by SARS-CoV-2 and 1,439 participants who had not been infected by the virus. Findings appear in the Journal of General Internal Medicine.

ME/CFS is a complex, serious, and chronic condition that often occurs following an infection. ME/CFS is characterized by new-onset fatigue that has persisted for at least six months and is accompanied by a reduction in pre-illness activities; post-exertional malaise, which is a worsening of symptoms following physical or mental activity; and unrefreshing sleep plus either cognitive impairment or orthostatic intolerance, which is dizziness when standing. People with long COVID also experience some or all of these symptoms.

Long COVID is an infection-associated chronic condition that occurs after SARS-CoV-2 infection and is present for at least three months as a continuous, relapsing and remitting, or progressive disease state that affects one or more organ systems. People with long COVID report a variety of symptoms including fatigue, pain, and cognitive difficulties.

Dr. Vernon and her team determined that new incidence cases of ME/CFS were 15 times higher than pre-pandemic levels.

These findings provide additional evidence that infections, including those caused by SARS-CoV-2, can lead to ME/CFS.

Post-exertional malaise, orthostatic intolerance, and cognitive impairment were the most reported ME/CFS symptoms among participants in the infected group.

Limitations of this study include reliance on self-reported symptoms, exclusion of RECOVER participants who had been hospitalized, and the sporadic nature of ME/CFS symptoms.

More research is needed to understand the biological mechanisms of why some people are more likely to develop ME/CFS following infection than others. Advancing knowledge of how the SARS-CoV-2 virus can result in ME/CFS may help uncover potential treatments for a range of infection-associated chronic conditions.

The study was supported by the NIH (OT2HL161841, OT2HL161847, and OT2HL156812).

This news release was published by the National Institutes of Health on January 13, 2025.

---