

# Long-Covid Syndrome: A Multi-Organ Disorder Research Article 1

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SARS-CoV-2 Infection COVID-19 is a major pandemic that is worldwide and causing significant mortality and morbidity. About 80% have mild to moderate disease. However, among the 20% with severe disease, 5% develop a critical illness. There is a subset of patients, however, who will have lingering, persistent or prolonged symptoms for weeks or month afterwards, which we termed "Post-Acute Sequelae of SARS-CoV-2 infection" syndrome or simply the "Post-Acute COVID-19 Syndrome" or "Long COVID-19" or just "Long COVID" or "Long Haulers COVID-19" or simply "Long Haulers" or "Post-Covid Syndrome."

This has extended the significant worldwide morbidity from this pandemic. It is estimated that about 10% of patients who tested positive for SARS-COVID-19 will remain ill beyond three weeks and a smaller proportion for months. This is a sub set that constitutes the Long-COVID syndrome. Globally, there are estimated over 200 million confirmed cases of COVID-19. Although the majority of infected individuals recover, we still do not know the exact percentage that will continue to experience symptoms or complications after the acute phase of the illness is over.

This prolonged phase with morbidity and ongoing symptoms creates significant burden to the patient and burden to the health care system and is not completely understood. To complicate matters, not only do the long-term effects of those infected by the virus remain largely unknown, but there are also reports highlighting that sustained transmission and emergent variants continue to cause challenges to healthcare providers throughout the world, and therefore we do not know when the pandemic will cease. While it is estimated that 10% will develop a chronic syndrome, or symptoms that are persistent, this statistic may actually increase. Since this is a new illness, we do not know the cause or characteristics of the long-term sequelae of someone who has recovered from acute COVID, not just the quality of life, including mental health, but the employment and productivity issues become paramount when the acute phase of COVID, the subacute, and the chronic phases occur. In our experience, approximately 20% of people will exhibit symptoms for more than five weeks and 10% will have symptoms for more than 12 weeks.