

Long covid, the short story

Ruby Naylor-Adamson

What is Long Covid?

Long covid is a relatively new term coined first by Elisa Perego, who first used the term in a Twitter post. Since then, 'long covid' has been widely adopted to describe the continuation of Covid-19 symptoms weeks to months after the initial infection, regardless of the patient's viral status. The mass majority of those with long covid will test negative for the virus, yet still report that their symptoms persist. As such, long covid may be described as the 'time lag between microbiological recovery and clinical recovery'¹.

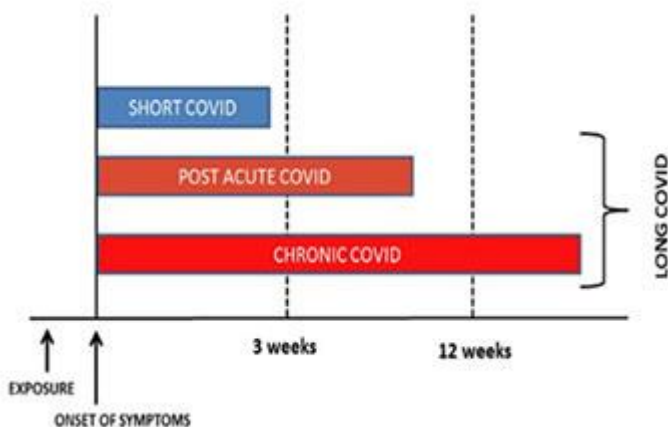


Figure 1: Long covid may be divided into two main terms, acute long covid and chronic long covid. Acute long covid describes symptoms lasting 3 weeks or longer but less than 12 weeks. Chronic long covid, on the other hand, describes symptoms that last over 12 weeks².

What are the symptoms of long covid?

Symptoms of long covid include but are not limited to: fatigue, brain fog, headache, depression, anxiety, chest pains, cough, nausea, sore throat and palpitations.

Fatigue is a particularly common symptom of long covid, with one meta-analysis estimating that 58% of people with long covid reported suffering with fatigue. Also frequently reported in this meta-analysis were headaches (44%) and hair loss (25%)³.

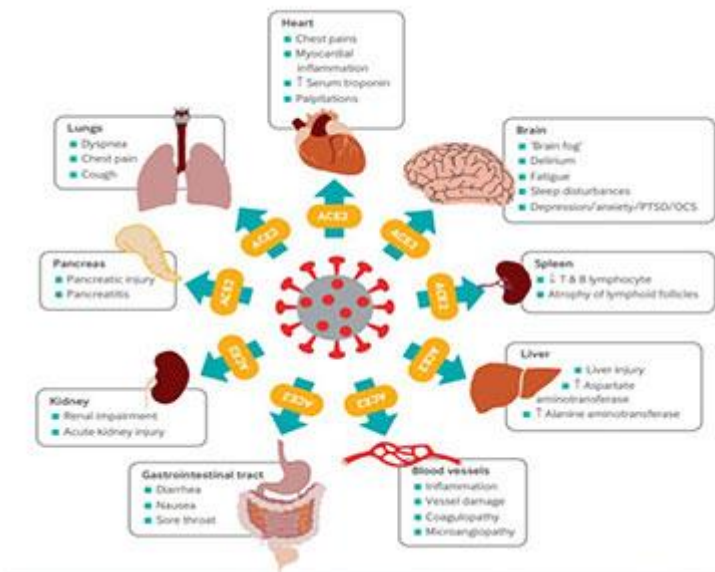


Figure 2: The various symptoms of long covid⁴.

Are there certain risk factors for long covid?

Some studies suggest long covid may be up to twice more common in women than men⁵ although this is yet to be fully explained or determined. A history of anxiety and depression may be another risk factor for fatigue after covid⁶ and experiencing five or more symptoms at the acute stage of illness may also be linked to prevalence of long covid⁷

What is the prevalence of long covid?

The prevalence of long covid is still widely debated, with different studies often varying considerably. One Italian report consisting of 143 covid patients discharged from hospital found that 87% of patients reported suffering from at least one persisting symptom 60 days later⁸. Of these patients, a further 32% suffered one or two symptoms after the 60 days, while the remaining 55% of patients suffered three or more persisting symptoms. The most commonly reported symptoms to persist were fatigue (53.1%), and decreased quality of life (44.1%).

Initial findings of a study in the UK by the University of Leister and University of Loughborough, under the NIHR Leicester Biomedical Research Centre, indicate that of 1077 covid patients discharged from hospital, only 29% felt fully recovered at follow up, meaning 71% of patients reported still suffering persisting symptom/s⁹.

Although this sounds worrying, some studies report a generally lower prevalence. For instance, a US study of 292 randomly chosen candidates who had previously tested positive for covid-19 at an outpatient facility, found that 65% of these reported cases returned to full health within 16 days, with only 35% reporting persisting symptoms beyond 16 days¹⁰.

What about non-hospitalised patients though? Does long covid still affect them too? One study from 2021 involving 262 patients found higher rates of long covid in non-hospitalised patients compared to hospitalised patients. A staggering 68.8% of non-hospitalised patients reported long covid symptoms, which was significantly lower than the 45.3% of hospitalised patients¹¹. In contrast, one meta-analysis, determined that hospitalised patients were more likely to have one or more persisting symptom/s after 60 days than non-hospitalised patients, with no difference between the two at 30 days¹².

Covid-19 is relatively 'new', in that it has only been thrust into the forefront of media and research in the last couple of years, emerging in the human population towards the end of 2019. We are therefore only just beginning to understand the long-term implications and it is likely that genetic and environmental factors feed into the manifestation of long covid in different patient groups.

How do we deal with long covid?

Currently, multiple studies are taking place to assess the effectiveness of different treatment plans for long covid. Vitamin C has been proposed as a potential combatant to covid with antiviral properties and providing immunological support¹³. Other interventions under study include exercise programs¹⁴ and vitamin D supplementation¹⁵. Probiotics have also been suggested in benefitting the host immune response to covid¹⁶.

Other possible treatments may include pacing, which is used as a tactic for those with chronic fatigue. This includes managing tasks in advance to prevent excessive fatigue, described by The National Institute for Health and Care Excellence (NICE) as a self-management strategy.

Graded exercise therapy (GET) is a set plan of physical activity to help treat fatigue and has been shown to possibly help reduce fatigue in those with chronic fatigue syndrome (CFS)¹⁷. However, although NICE guidelines recommend GET for CFS the NICE guidelines advise caution for using GET for recovery of covid-19 – noting recommendations may change¹⁸.

References

1. Raveendran AV, Jayadevan R, Sashidharan S. Long COVID: An overview. *Diabetes Metab Syndr Clin Res Rev*. 2021;15(3):869-875. doi:10.1016/j.dsx.2021.04.007
2. Greenhalgh T, Knight M, A'Court C, Buxton M, Husain L. Management of post-acute covid-19 in primary care. *BMJ*. Published online August 11, 2020:m3026. doi:10.1136/bmj.m3026
3. Lopez-Leon S, Wegman-Ostrosky T, Perelman C, et al. More than 50 long-term effects of COVID-19: a systematic review and meta-analysis. *Sci Rep*. 2021;11(1):16144. doi:10.1038/s41598-021-95565-8
4. Crook H, Raza S, Nowell J, Young M, Edison P. Long covid—mechanisms, risk factors, and management. *BMJ*. Published online July 26, 2021:n1648. doi:10.1136/bmj.n1648
5. Nabavi N. Long covid: How to define it and how to manage it. *BMJ*. Published online September 7, 2020:m3489. doi:10.1136/bmj.m3489
6. Townsend L, Dyer AH, Jones K, et al. Persistent fatigue following SARS-CoV-2 infection is common and independent of severity of initial infection. Madeddu G, ed. *PLOS ONE*. 2020;15(11):e0240784. doi:10.1371/journal.pone.0240784
7. Sudre CH, Murray B, Varsavsky T, et al. Attributes and predictors of long COVID. *Nat Med*. 2021;27(4):626-631. doi:10.1038/s41591-021-01292-y
8. Carfi A, Bernabei R, Landi F, for the Gemelli Against COVID-19 Post-Acute Care Study Group. Persistent Symptoms in Patients After Acute COVID-19. *JAMA*. 2020;324(6):603. doi:10.1001/jama.2020.12603

9. Evans RA, McAuley H, Harrison EM, et al. Physical, cognitive, and mental health impacts of COVID-19 after hospitalisation (PHOSP-COVID): a UK multicentre, prospective cohort study. *Lancet Respir Med*. 2021;9(11):1275-1287. doi:10.1016/S2213-2600(21)00383-0
10. Tenforde MW, Kim SS, Lindsell CJ, et al. Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network — United States, March–June 2020. *MMWR Morb Mortal Wkly Rep*. 2020;69(30):993-998. doi:10.15585/mmwr.mm6930e1
11. Mohamed-Hussein AAR, Amin MT, Makhlouf HA, et al. Non-hospitalised COVID-19 patients have more frequent long COVID-19 symptoms. *Int J Tuberc Lung Dis*. 2021;25(9):732-737. doi:10.5588/ijtld.21.0135
12. Fernández-de-las-Peñas C, Palacios-Ceña D, Gómez-Mayordomo V, et al. Prevalence of post-COVID-19 symptoms in hospitalized and non-hospitalized COVID-19 survivors: A systematic review and meta-analysis. *Eur J Intern Med*. 2021;92:55-70. doi:10.1016/j.ejim.2021.06.009
13. Vollbracht C, Kraft K. Feasibility of Vitamin C in the Treatment of Post Viral Fatigue with Focus on Long COVID, Based on a Systematic Review of IV Vitamin C on Fatigue. *Nutrients*. 2021;13(4):1154. doi:10.3390/nu13041154
14. Jimeno-Almazán A, Pallarés JG, Buendía-Romero Á, et al. Post-COVID-19 Syndrome and the Potential Benefits of Exercise. *Int J Environ Res Public Health*. 2021;18(10):5329. doi:10.3390/ijerph18105329
15. Bilezikian JP, Bikle D, Hewison M, et al. MECHANISMS IN ENDOCRINOLOGY: Vitamin D and COVID-19. *Eur J Endocrinol*. 2020;183(5):R133-R147. doi:10.1530/EJE-20-0665
16. Singh K, Rao A. Probiotics: A potential immunomodulator in COVID-19 infection management. *Nutr Res*. 2021;87:1-12. doi:10.1016/j.nutres.2020.12.014
17. Larun L, Brurberg KG, Odgaard-Jensen J, Price JR. Exercise therapy for chronic fatigue syndrome. Cochrane Common Mental Disorders Group, ed. *Cochrane Database Syst Rev*. Published online April 25, 2017. doi:10.1002/14651858.CD003200.pub7
18. Torjesen I. NICE cautions against using graded exercise therapy for patients recovering from covid-19. *BMJ*. Published online July 21, 2020:m2912. doi:10.1136/bmj.m2912