

COVID PATIENT RECOVERY ALLIANCE

The COVID Patient Recovery Alliance is a multi-sector collaboration with the mission to support the energy and innovation of government and private-sector leaders as they care for individuals with long-COVID. The Alliance is developing national solutions that link diverse data sources, improve clinical care pathways, and ensure sustainable federal financial support for the care of these patients. The Alliance is particularly interested in those patients who served their communities and nation when called to duty; whose COVID-19-related costs are extraordinary and burdensome; or who are underserved by existing programs, including racial and ethnic minorities and communities experiencing health disparities.

For more information, please visit our website at COVID19PatientRecovery.org.

PURPOSE OF RESEARCH TRACKER

The research, news, and knowledge of long-COVID is quickly evolving. To stay up-to-date and informed on long-COVID, the Patient Recovery Alliance is performing routine intel scans from a variety of sources – from peer-reviewed publications to various news websites – and on variety of long-COVID-related topics, including health care coverage, workers' compensation, impacted populations, symptoms, and prevalence. The outputs of these intel scans are compiled in this document, which will be periodically updated.

COVID-19 Patient Recovery Alliance Research Tracker

Date	Article	Publication	Key Takeaways
June 2022			
6/1/2022	Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK	U.K. Office for National Statistics	<ul style="list-style-type: none"> • An estimated 2.0 million people in the UK were experiencing self-reported long-COVID (symptoms continuing for more than four weeks after the first suspected coronavirus (COVID-19) infection that were not explained by something else) as of May 1, 2022. • Of people with self-reported long-COVID, 22% first had (or suspected they had) COVID-19 less than 12 weeks previously, 72% at least 12 weeks previously, 42% at least one year previously and 19% at least two years previously. • Long-COVID symptoms adversely affected the day-to-day activities of 1.4 million people (71% of those with self-reported long-COVID), with 20% of those with long-COVID reporting that their ability to go about their day-to-day activities had been "limited a lot". • Fatigue continued to be the most common symptom reported as part of individuals' experience of long-COVID (55%) followed by shortness of breath (32%), cough (23%), and muscle ache (23%). • As a proportion of the UK population, the prevalence of self-reported long-COVID was greatest in people aged 35 to 69 years, females, people living in more deprived areas, those working in social care, teaching and education or health care, and those with another activity-limiting health condition or disability.
6/5/2022	NIH doctor calls long COVID a "significant problem for the country going forward"	CBS News (video)	<ul style="list-style-type: none"> • There are 4,000 people enrolled in the RECOVER study so far, largest in-person long-COVID study to date. When asked if there are any treatments, he said "We don't have a magic bullet/cure for long-COVID because we don't understand what's driving it biologically"
6/6/2022	Stella and RTHM Partner to Treat Long COVID Markets Insider (businessinsider.com)	Business Insider	<ul style="list-style-type: none"> • Stella, the leader in Stellate Ganglion Block (SGB) treatment for emotional trauma and mental health management, and RTHM, a long-COVID clinic, have partnered to provide RTHM's Long COVID patients with access to Stella's Stellate Ganglion Block (SGB) treatment. SGB has been shown to help return the sympathetic nervous system to a healthier state after a biological trigger alters its function. • In September 2021, Stella partners published a case study in the Journal of Neuroimmunology that showed how SGB treatment reduced symptoms of Long COVID. Conclusion: The stellate ganglion block has been used for nearly a century to treat a variety of sympathetically mediated medical conditions. Its safety profile is well established. Its application in treating Long COVID/PASC is novel but

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6/7/2022	Using AI to Advance Understanding of Long COVID Syndrome	NIH Director's Blog	<p>promising. The lack of effective treatments for Long COVID/ PASC makes the SGB an attractive therapeutic modality that deserves further investigation.</p> <ul style="list-style-type: none"> • For this NIH-supported study, the researchers used EHRs from the National COVID Cohort Collaborative (N3C). • They defined a group of more than 1.5 million adults in N3C who either had been diagnosed with COVID-19 or had a record of a positive COVID-19 test at least 90 days prior. • Next, they examined common features, including any doctor visits, diagnoses, or medications, from the group’s roughly 100,000 adults. • They fed that EHR data into a computer, along with health information from almost 600 patients who’d been seen at a Long COVID clinic. • The researchers developed three machine learning models: one to identify potential long COVID patients across the whole dataset and two others that focused separately on people who had or hadn’t been hospitalized. • All three models proved effective for identifying people with potential long-COVID. Each of the models had an 85 percent or better discrimination threshold, indicating they are highly accurate. • Once researchers can identify those with Long COVID in a large database of people, they can begin to ask and answer many critical questions about any differences in an individual’s risk factors or treatment that might explain why some get long-COVID and others don’t.
6/4/2022	Individuals with Diabetes are Up to Four Times More Likely to Develop Long COVID-19	AP News	<ul style="list-style-type: none"> • Quote from study co-lead author: “As time goes on, we are seeing the negative impacts that long COVID has on the daily lives of patients. Though more research is needed, we now know that patients with diabetes are at a disproportionate risk of long COVID and that these patients should be closely monitored...Careful monitoring of glucose levels in at-risk individuals may help to mitigate excess risk and reduce the burden of lingering symptoms that inhibit their overall wellbeing.”

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6/15/2022	Long COVID Could Be a 'Mass Deterioration Event'	The Atlantic	<ul style="list-style-type: none"> • “The mix of symptoms and experiences that define long COVID suggests that no single measure, or group of measures, can illustrate the suffering of long-haulers in aggregate. A “mass disabling event” is not playing out in the data we have. • That could change in the months and years to come, or else it might indicate that we’re in another kind of moment, one that leaves tens of millions of Americans feeling somewhat worse off than they were before, not so sick that they can’t hold down a job or need medical attention, but also not quite back to baseline. • Call it a “mass deterioration event. “There are a significant number of people that can’t simply move on...Many of them have no idea why they are feeling the way they do, and they have not been able to get any relief.” That form of epidemic—one that degrades quality of life, incrementally, for millions—is likely unfolding, even as a much smaller group of patients, including Fisher, see their lives utterly transformed by chronic illness. We don’t know how bad the long-COVID crisis will get, but for many, there’s no turning back.”
6/15/2022	Fatigue and quality-of-life in the year following SARS-Cov2 infection	BMC Infectious Diseases	<ul style="list-style-type: none"> • N=120 ; Prospective cohort study. Three scores were calculated at 6 and 12 month follow-ups: the modified Medical Research Council score (mMRC) used to determine dyspnea state, the Fatigue Severity Scale (FSS) and the Short Form 12 (SF12) that was carried out to determine the QOL both mentally and physically (MCS12 and PCS12). Descriptive analysis and comparison of scores between M6 and M12 were made. At 12 months post-infection: 40% presented dyspnea symptoms; 44% experienced fatigue, compared to 35% at M6; The two scores of SF12 were lower than the general population standard scores (quality of life); No difference was found between SF12 scores at 6 and 12 months.
6/13/2022	Long Covid Is Showing Up in the Employment Data	The Washington Post	<ul style="list-style-type: none"> • “Given that you have to be unable to work for at least 12 months to qualify for Social Security disability and going on the program is a momentous step that effectively requires leaving the labor market, the still-new phenomenon that is Long Covid is probably not playing a big role (the Social Security Administration has said that only about 1% of recent claims mention Covid). Still, the turnaround in disability applications is at least not incompatible with a rise in long-term health problems related to the disease — and it turns out there are stronger signs of Long Covid in other employment-related data.”

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6/17/2022	Risk of long COVID associated with delta versus omicron variants of SARS-CoV-2 - The Lancet	The Lancet	<ul style="list-style-type: none"> Findings: the odds of developing long-COVID after infection were 24% to 50% lower during the Omicron wave in the UK compared to Delta. The figure varied depending on the patient's age and the timing of their last vaccination – 4.5% of omicron cases vs 10.8% of delta cases.
6/15/2022	Post-acute COVID-19 syndrome and its prolonged effects: An updated systematic review - PMC (nih.gov)	Annals of Medicine and Surgery	<ul style="list-style-type: none"> The most common persistent clinical manifestations of post-acute COVID-19 syndrome were fatigue (54.11%), dyspnea (24.38%), alopecia (23.21%), hyperhidrosis (23.6%), insomnia (25.98%), anxiety (17.29%), and arthralgia (16.35%). In addition to these symptoms, new-onset hypertension, diabetes, neuropsychiatric disorders, and bladder incontinence were also reported.
6/20/2022	Sex differences in sequelae from COVID-19 infection and in long COVID syndrome: a review	Current Medical Research and Opinion	<ul style="list-style-type: none"> Analyzed 23 and 12 studies that met the eligibility criteria for COVID-19 sequelae and long-COVID syndrome, respectively. COVID-19 sequelae: lasting <4 weeks after symptom onset; long-COVID syndrome: lasting >4 weeks after symptom onset. COVID-19 sequelae: Psychiatric/mood (OR = 1.80), ENT (OR = 1.42), musculoskeletal (OR = 1.15), and respiratory (OR = 1.09) were significantly more likely among females than males. Renal sequelae (OR = 0.83) were significantly more likely among males. The likelihood of having long-COVID syndrome was significantly greater among females (OR = 1.22), with the odds of ENT (OR = 2.28), GI (OR = 1.60), psychiatric/mood (OR = 1.58), neurological (OR = 1.30), dermatological (OR = 1.29), and other (OR = 1.36) disorders significantly higher among females and the odds of endocrine (OR = 0.75) and renal disorders (OR = 0.74) significantly higher among males.
6/22/2022	Long COVID symptoms in SARS-CoV-2-positive children aged 0–14 years and matched controls in Denmark (LongCOVIDKidsDK): a national, cross-sectional study	The Lancet Child and Adolescent Health	<ul style="list-style-type: none"> N= 44,000 children aged 0-14, 11,000 of which had tested positive for COVID-19 between Jan 2020 and July 2021; Median age was 10.6 years for controls and 10.2 years for cases. Cases had higher odds of reporting at least one symptom lasting more than 2 months than did controls in the 0–3 years age group (OR:1.78), 4–11 years age group (OR:1.23) and 12–14 years age group (OR: 1.21). “Compared with controls, children aged 0–14 years who had a SARS-CoV-2 infection had more prevalent long-lasting symptoms. There was a tendency towards better quality-of-life scores related to emotional and social functioning in cases than in controls in older children. The burden of symptoms among children in the control group requires attention. Long COVID must be recognized

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			and multi-disciplinary long COVID clinics for children might be beneficial.”
6/23/2022	Faster Progress Is Needed on Treatments for Long Covid - The Washington Post	The Washington Post	<ul style="list-style-type: none"> “The slow-footed response to long Covid is often attributed to the nebulous nature of the problem. Symptoms are so numerous as to seem almost random...But researchers can make progress toward helping patients before they have nailed down a neat and tidy explanation for the condition. Already, scientists have several good hypotheses about how to treat the problem, and ideas for preventing it in the first place. And some of these theories can be tested, even without inventing new drugs.”
6/20/2022	How common is long COVID? Why studies give different answers (nature.com)	Nature	<ul style="list-style-type: none"> "For Al-Aly, the discrepancies among study results are not surprising, nor are they damning. Epidemiologists often weave together evidence from multiple sources of data and methods of analysis, he says. Even if it is difficult to precisely quantify vaccination’s effect on long-COVID risk, for example, researchers can look for trends. “You search for the common thread,” Al-Aly says. “The common thread here is that vaccines are better than no vaccines.”"
6/28/2022	How to calculate risk in the era of long covid - The Washington Post	The Washington Post	<ul style="list-style-type: none"> “Some people will see my current carefulness as excessive — particularly since vigilance is no guarantee of remaining COVID-free, and the risk of short-term morbidity and mortality is now relatively low. But for me and many others, the price of remaining careful — even if variants can sometimes, if rarely, evade even a good mask — seems lower than the risks of long-COVID. While the drop in severe acute covid cases is cause for celebration, COVID’s long-term threat deserves our respect.”
6/27/2022	WHO Official: Individuals Can Get 'Unlucky' With Long COVID (businessinsider.com)	Business Insider	<ul style="list-style-type: none"> "The more times you get it, the more likely you are to be unlucky and end up with long COVID — which is the thing that none of us want because it can be so serious. "It can knock people off their stride for several months."" – David Nabarro, a WHO special envoy for COVID-19
6/23/2022	Post-COVID COCA CDC slides.pptx	CDC	<ul style="list-style-type: none"> Overview of current research on long-COVID in children and adolescents
6/28/2022	Long COVID burden and risk factors in 10 UK longitudinal studies and electronic health records Nature Communications	Nature Communications	<ul style="list-style-type: none"> Key risk factors associated with increased risk in long COVID included: (1) Age — with 1.2% of 20-year-olds experiencing impacts on daily life, and 4.8% of 60-year-olds. Debilitating symptoms are roughly four times as common in 60-year-olds than 20-year-olds; (2) Being female; (3) Having poor pre-pandemic mental health and poor general health; (4) Having asthma; and (5) Those with overweight or obesity problems.

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6/29/2022	International electronic health record-derived post-acute sequelae profiles of COVID-19 patients	npj Digital Medicine	<ul style="list-style-type: none"> • A total of 75,232 hospitalized and 339,370 non-hospitalized COVID-19 patients were included in the analysis; 505,055 inpatient and 1,825,473 outpatient controls. • A significantly higher risk of heart failure, pneumonia, respiratory distress, cough, malaise, fatigue, and cognitive dysfunction was observed among hospitalized COVID-19 patients during the mid-stage post-acute period (30-89 days after infection) compared to that among hospitalized controls. • A significantly higher risk of pulmonary embolism and infarction, pneumonia, venous embolism and thrombosis, atrial fibrillation, hypertension, diabetes, vitamin D deficiency, dementia, amnesia, malaise, and fatigue was observed among non-hospitalized COVID-19 patients during the mid-stage post-acute period compared to that among non-hospitalized controls. • During the late-stage post-acute period, non-hospitalized COVID-19 patients showed an increased risk of skin ulcers, diabetes, vitamin D deficiency, dementia, respiratory distress, loss of taste and smell sensation, and inflammatory neuropathy. • Overall, a gradual decline in the incidence of cardiovascular and pulmonary conditions over time was observed among hospitalized COVID-19 patients. In contrast, an induction in the incidence of cardiovascular, digestive, and metabolic conditions was observed among non-hospitalized COVID-19 patients.