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| **Source** |  **Text** |
| Wellcome | Symptoms persisting beyond four weeks after symptom onset suggestive of COVID-19 (*33*) |
| Lancet | Multi organ symptoms after COVID-19 are being reported by increasing numbers of patients. They range from cough and shortness of breath, to fatigue, headache, palpitations, chest pain, joint pain, physical limitations, depression, and insomnia, and affect people of varying ages. At the Lancet-Chinese Academy of Medical Sciences conference on 23 November 2020, Bin Cao presented data (in press at the Lancet) on the long-term consequences of COVID-19 for patients in Wuhan, and warned that dysfunctions and complications could persist in some discharged patients for at least six months. So-called long COVID is a burgeoning health concern and action is needed now to address it (*34*).  |
| NICE | Signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks and are not explained by an alternative diagnosis |
| Scientific America | Individuals whose symptoms persist or develop outside the initial viral infection, but the duration and pathogenesis are unknown (*36*).  |
| Royal Society | The onset of persistent or recurrent episodes of one or more of the following symptoms, within x\* weeks of infection with SARS-CoV-2 and continuing of y\* weeks or more: severe fatigue, reduced exercise capacity, chest pain or heaviness, fever, palpitations, cognitive impairment, anosmia or ageusia, vertigo and tinnitus, headache, peripheral neuropathy, metallic or bitter taste, skin rash joint pain or swelling (*3*). \*Maximum period between acquisition of the infection (if known) and the onset of symptoms, and the minimum duration of symptoms, should be specified in the definition.  |
| Hauté Autorité de santé,France | Three criteria: Having presented with a symptomatic form of COVID-19; presenting with one or more initial symptoms four weeks after the start of the disease; and none of these symptoms can be explained by another diagnosis *(37*).  |
| CDC | Long COVID: While most persons with COVID-19 recover and return to normal health, some patients can have symptoms that can last for weeks or even months after recovery from acute illness. Even people who are not hospitalized and who have mild illness can experience persistent or late symptoms (*38*).  |
| Wikipedia | Condition characterized by long-term sequelae- persisting after the typical convalescence period – of coronavirus disease 2019 (COVID-19) (*39*).  |
| Nature | Post-acute COVID-19 as persistent symptoms and/or delayed or long-term complications of SARS-CoV-2 infection beyond 4 weeks from the onset of symptoms (*40*).  |

Repository of published/available definitions of post-COVID-19 conditions

1. A clinical case definition of post COVID – 19 conditions by Delphi consensus. World Health Organization,

6 October, 2021

1. Long COVID or post-COVID-19 syndrome: putative pathophysiology, risk factors, and treatments.

National Institutes of Health, 22 May 2021.

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| **Reference** | **Term** | **Description** |
| [1]  | Long COVID | Long-term COVID-19 illness that is cyclical, progressive, and multiphasic |
| [2, 3, 4]  | Long-hauler COVID -19Long COVIDChronic COVID syndrome | Multi -organ symptoms that persists for months after acute COVID-19 |
| [5] | Long-haul COVIDLong-tail COVID | Symptoms lasting for >100 days |
| [6,7] | Long COVID |  Symptoms lasting for >2 months |
| [8,9,10] | Late sequelae of SARS-CoV-2 Long-haulersLong COVID | Symptoms lasting for > 4 weeks after the initial infection or diagnosis |
| [11] | Post-acute COVID-19 syndrome | Symptoms lasting for >4 weeks after the first symptom onset |
| [12] | Acute post-COVID symptoms Long post-COVIDPersistent post-COVID symptoms  | Symptoms lasting for > 5-12 weeksSymptoms lasting for > 12-24 weeks Symptoms lasting for >24 weeks |
| [13, 14, 4]  | Post-acute COVID- 19Ongoing symptomatic COVID-19 Chronic COVID-19 Long COVID | Symptoms lasts for 1- 3 months from the first symptomSymptoms lasting for > 3 months from the first symptom onsetPost-COVID – 19 syndrome |

1. Symptoms commonly reported among people with post-COVID conditions, Center of Disease Control and Prevention
* Dyspnea or increased respiratory effort
* Fatigue
* Post-exertional malaise and/ or poor endurance
* “Brain fog”, cognition impairment
* Cough
* Chest pain
* Headache
* Palpitations and/or tachycardia
* Arthralgia
* Myalgia
* Paresthesia
* Abdominal pain
* Diarrhea
* Insomnia and other sleep studies
* Fever
* Lightheadedness
* Impaired daily function and mobility
* Pain
* Rash (e.g., urticaria)
* Mood changes
* anosmia or dysgeusia
* Menstrual cycle irregularities
1. Participant and Clinical Characteristics and Study. Adapted from Long COVID or post-COVID-19 syndrome: putative pathophysiology, risk factors, and treatments. National Institutes of Health, 22 May 2021.

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| **Participant and clinical Characteristics and Study** | **Follow -up duration**  | **Symptom (% prevalence)** |
| N=110; median age=60; 44% female; 100% inpatients 24.5% had mild disease; 59% had moderate disease; 16.4% had severe disease; Bristol EnglandArnold DT, Hamilton FW, Milne A, et al..Patient outcomes after hospitalization with COVID-19 and implications for follow-up: results from aprospective UK cohort. Thorax.2020;76:399-401  | Median of 83 days after hospital discharge | * >1 symptoms (74%)
* Dyspnea (39%)
* Fatigue (39%)
* Insomnia (22%)
* Myalgia (22%)4
* anosmia (11%)
* Arthralgia, headache, abdominal pain, diarrhea (<5%)
 |
| N=238; median age=61; 40.3% females; 100% inpatients; 72.3% needed supplemental O2; 11.8% admitted to ICU; 8.8% needed MV; Novara, ItalyBellan M, Sodu D, Balbo PE, et al. Respiratory and psychophysical sequelae among patients with COVID-19 four months for follow-up: results from a prospective UK cohort. *Thorax*. 2020;76:399-401. | 4 months after hospital discharge | * Post-traumatic stress symptoms (17%)
* arthralgia (5.9%)
* myalgia (5.9%)
* Dyspnoea (5.5%)
* Ageusia, anosmia, cough, diarrhea, and chest pain (<5%)
 |
| N=143; 56.5±14.6 years; 37.1% females; 100% inpatients; 53.8% needed supplemental O2; 12.6% admitted to ICU; 14.7% needed non-invasive ventilation; 4.9% needed MV; Rome, ItalyCarfi A, et al.,Persistent symptoms in patients after acute COVID. *JAMA Netw Open*. 2021;4(1)e2036142. | Mean of 60 days after hospital discharge | * ≥1 symptoms (87.4%)
* Fatigue (53.1%), Dyspnoea (43.4%); Worsened Quality of Life (44.1%)
 |
| N=21,359 (only 23 were COVID-19 survivors; 96.6% outpatients); median age=56; 63.6% females; 83.7%Cirulli ET, Schiabor Barrett KM, Riffle S, et al. . Long-term COVID-19 symptoms in a large, unselected population. m*edRxiv*. 2020.DOI:10.1101/2020.10.07.20208702 | 90 days after symptom onset | * Symptom lasting >30 days (42.3%)
* Symptom lasting for >60 days
* Symptom lasting for >90 days (24.1%)
* Symptoms: concentration and memory problems, anosmia
 |
| N=3.762; age groups of 18-29 (8%), 30-39 (26.1%); 40-49 (33.7%); 50-59 (27.1%); 60-69 (11%); 70-79 (2.5%); 80+ (0.4%) years; 78.9% females; 56.7% did not seek hospital care; 34.9% outpatients; 84.3% were hospitalized; 56 countries (41.6% from U.S.)Davis HE, Assaf GS, McCorkell L, et al.. Characterizing long COVID in an International Cohort: 7months of symptoms and their impact. m*edRxiv*. 2020. DOI:10.1101/2020.12.24.20248802 | 6-7 months after symptom onset | * Fatigue (80%)
* Post-exertional malaise (73.3%)
* Cognitive dysfunction (58.4%)
* Sensorimotor symptoms (55.7%)
* Headaches (53.6%)
* Memory Issues (51.0%)
 |
| \*N=201; 44±11 years; 71% females; 81.6% outpatients; 18.4% were hospitalized; London, UKDennis A, Wamil M, Alberts J, et al.. Multiorgan impairment in low-risk individuals with post-COVID-19 syndrome: a prospective, community-based study. *BMJ Open*. 2021:11(3):3048391. | Median of 140 days after symptom onset | * ≥4 symptoms (99%)
* ≥10 symptoms (42%)
* Fatigue (98%)
* Myalgia (86.7%)
* Dyspnoea (87.1%)
* Headache (82.6%)
* Joint Pain (78.1%)
* Fever (75.1%)
* Cough (73.6%)
* Chest Pain (73.1%)
* Sore Throat (71.1%)
* Diarrhea (59.2%)
* Pain (53.7%)
* Wheezing (48.3%)Inability to Walk (40.3%)
* Runny Nose (33.8%)
 |
| N=120; 63.2±15.7 years; 37.5% females; 100% inpatients; 20% admitted to ICU; Clichy, FranceGarrigues E. Janvier P, Kherabi Y et. al. Post-discharge persistent symptoms and health-related quality of life after hospitalization for COVID-19. J Infect. 2020;81(6):e4-e6.  | Mean of 110 days after hospital admission | * Fatigue (55%)
* Dyspnoea (42%)Memory Loss (34%)
* Sleep Disorders (30.8%)
* Joint Pain (78.1%)
* Fever (75.1%)
* Cough (73.1%)
* Sore Throat (71.1%)
* Diarrhea (59.2%)
* Pain (53.7%)
* Wheezing (48.3%)
* Inability to Walk (40.3%)
* Runny Nose (33.8%)
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1. System- based conditions reported following SARS-CoV2 infection. Adapted from: Long COVID or post-COVID-19 syndrome: putative pathophysiology, risk factors, and treatments. National Institutes of Health, 22 May 2021.

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| **Body System** | **Conditions (subject to change and not mutually exclusive)** |
| Cardiovascular  | Myocarditis, heart failure, pericarditis, orthostatic intolerance (e.g., postural orthostatic tachycardia) |
| Pulmonary | Interstitial lung disease, reactive airways disease |
| Renal | Chronic kidney disease |
| Dermatologic | Alopecia |
| Rheumatologic | Reactive arthritis, fibromyalgia, connective tissue disease |
| Endocrine | Diabetes mellitus, hypothyroidism |
| Neurologic altered | Transient ischemic attacks/stroke, olfactory and gustatory dysfunction, sleep dysregulation, cognition, memory impairment, headaches, weakness, and neuropathy |
| Psychiatry | Depression, anxiety, and post-traumatic stress disorder (PTSD), psychosis |
| Hematologic  | Pulmonary embolism, arterial thrombosis, venous thromboembolism, or other hypercoagulability |
| Urologic | Incontinence, sexual dysfunction |

1. Post COVID-19 syndrome categories. Adapted from A.V Raveendran, Rajeev Jayadevan and S. Sahidharan, Long COVID: An overview

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| **Post -COVID Syndrome** | **Predominant clinical features** | **Remarks** |
| Post COVID fatigue syndrome | Profound fatigue  | Rule out causes like anemia, hypothyroidism electrolyte imbalance |
| Post COVID neuro-psychiatric syndrome | Headaches, amsonia, neurocognitive difficulties, insomnia, depressions and other mental health conditions | In patients with acute onset neurological symptoms consider vasculitis, thrombosis or demyelination. Post COVID psychological issues have to be addressed properly |
| Post COVID gastro-intestinal syndrome | Abdominal discomfort, diarrhea, constipation, vomiting | GI symptoms can be a sequelae of the disease. Various drugs used during acute COVID, especially lopinavir, ritonavir produces GI symptoms |
| Post COVID hepato-biliary syndrome | Muscle pains and weakness | May be due to disease, prolonged ICU care, neurological problems, myopathy or electrolyte imbalance. Usually subside during follow-up. Inflammatory arthralgia has to be differentiated from other causes like RA, SLE |
| Post COVID thromboembolic system | Depending on the vascular territory if involvement breathlessness in PE, chest pain in CAD and limb weakness and neurological deficit in CVA | Early diagnosis and treatment is lifesaving. Follow standard treatment protocol |
| Post COVID multi-system inflammatory syndrome/ post COVID | Fever, gastrointestinal symptoms, rash, chest pain, palpitations | Elevated levels of markers of inflammation |