

## Current major event

### Coronavirus disease (COVID-19): Post COVID-19 condition

Post COVID-19 condition, also known as “long COVID”, refers collectively to the constellation of long-term symptoms that some people experience after they have had COVID-19. People who experience post COVID-19 condition sometimes refer to themselves as “long-haulers.” While most people who develop COVID-19 fully recover, some people develop a variety of mid- to long-term effects like fatigue, breathlessness and cognitive dysfunction (for example, confusion, forgetfulness or a lack of mental focus and clarity).

#### Editorial note

Current evidence suggests approximately 10–20% of people experience a variety of mid- to long-term effects after they recover from their initial illness with COVID-19. It’s important to remember that our understanding of post COVID-19 condition, along with COVID-19, continues to evolve. WHO, partners and researchers are working with patients who developed post COVID-19 condition to better understand more about its cause, symptoms and effects.

The most common symptoms of post COVID-19 condition include: fatigue; shortness of breath or difficulty breathing; memory, concentration or sleep problems; persistent cough; chest pain; trouble speaking; muscle aches; loss of smell or taste; depression or anxiety; fever and more. Post COVID-19 condition can affect a person’s ability to perform daily activities such as work or household chores.

WHO has developed a [clinical case definition](#) of post COVID-19 condition (see Table 1) by Delphi methodology that includes 12 domains (see Table 2), available for use in all settings. This first version was developed by patients, researchers and others, representing all WHO regions, with the understanding that the definition may change as new evidence emerges and our understanding of the consequences of COVID-19 continues to evolve.

In general, post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually three months from the onset of COVID-19 with symptoms, and that lasts for at least two months and cannot be explained by an alternative diagnosis. Common symptoms include fatigue, shortness of breath, cognitive dysfunction but also others and generally have an impact on everyday functioning. These are new symptoms with new onset following initial recovery from an acute COVID-19 episode or persist from the initial illness. Symptoms may also fluctuate or relapse over time.

At present time, there is no specific medication therapy for people with post COVID-19 condition. However, available data suggest that holistic care, including rehabilitation, can be helpful. The best way that people can protect themselves against post COVID-19 condition is to avoid getting infected with the SARS-CoV-2 virus. This includes getting vaccinated and following the many public

**Table 1. A definition of post COVID-19 condition**

Post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis. Common symptoms include fatigue, shortness of breath, cognitive dysfunction but also others\* and generally have an impact on everyday functioning. Symptoms may be new onset following initial recovery from an acute COVID-19 episode or persist from the initial illness. Symptoms may also fluctuate or relapse over time.

A separate definition may be applicable for children.

#### Notes:

There is no minimal number of symptoms required for the diagnosis; though symptoms involving different organs systems and clusters have been described.

\*A full list of described symptoms included in the surveys can be found in Annexes 2 .

#### Definitions:

Fluctuate – a change from time to time in quantity or quality.

Relapse – return of disease manifestations after period of improvement.

Cluster – two or more symptoms that are related to each other and that occur together. They are composed of stable groups of symptoms, are relatively independent of other clusters, and may reveal specific underlying dimensions of symptoms (32).

Table 2. Domains in each Delphi stage

Domain number	Domain name
1	History of SARS-CoV-2 infection
2	SARS-CoV-2 laboratory confirmation
3	Minimum time period from onset of symptoms (or from date of positive test for asymptomatic) <u>3 months</u>
4	Minimum duration of symptoms <u>at least 2 months</u>
5	Symptoms and/or impairments: <u>cognitive dysfunction, fatigue, shortness of breath, others</u>
6	Minimum number of symptoms
7	<u>Clustering of symptoms</u>
8	Time-course nature of symptoms: <u>(fluctuating, increasing, new onset, persistent, relapsing)</u>
9	<u>Sequelae of well-described complications of COVID-19 (stroke, heart attack, etc.)</u>
10	<u>Symptoms cannot be explained by an alternative diagnosis</u>
11	Application of definition to different populations: <u>Include separate definition for children, others</u>
12	<u>Impact on everyday functioning</u>

health and social measures that can reduce the chances of getting infected and spreading the SARS-CoV-2 virus. For example, keep a physical distance of at least one metre from others; wear a well-fitted mask over your nose and mouth; open windows; cough or sneeze into your elbow; clean your hands frequently; and get vaccinated as soon as it is available.

Anyone who becomes ill with COVID-19 can develop post COVID-19 condition. There does not appear to be a relationship between the initial severity of COVID-19 infection and the likelihood of developing post COVID-19 condition.

WHO and partners are continuing to learn why some people develop this condition, the mechanisms behind the development of post COVID-19 condition and how to best manage it. It is difficult to predict how long post COVID-19 condition will last for any given patient. There is much to learn about post COVID-19 condition, but the research also shows that patients can improve with time.

WHO is currently working on the interim guideline for rehabilitation of adults living with post COVID-19 condition, and the case definition for post COVID-19 condition in children. These guidelines will provide advice on diagnosis and management based both on the best available evidence and the knowledge and experience of global experts.

## Update on outbreaks

in the Eastern Mediterranean Region

### COVID-19 in 22 EMR countries

### Current public health events of concern [cumulative N° of cases (deaths), CFR %]

#### Coronavirus disease 2019 (COVID-19): 2019–2022

Country	Cumulative cases	Cumulative deaths	CFR %
Afghanistan	178 387	7676	4.3%
Bahrain	562 759	1473	0.3%
Djibouti	15 598	189	1.2%
Egypt	511 977	24 522	4.8%
Iran (Islamic Republic of)	7 205 064	140 800	2.0%
Iraq	2 323 040	25 198	1.1%
Jordan	1 694 957	14 055	0.8%
Kuwait	630 888	2555	0.4%
Lebanon	1 095 518	10 359	0.9%
Libya	501 862	6429	1.3%
Morocco	1 164 345	16 062	1.4%
occupied Palestinian territory	656 617	5656	0.9%
Oman	388 795	4257	1.1%
Pakistan	1 527 151	30 363	2.0%
Qatar	363 443	677	0.2%
Saudi Arabia	752 479	9068	1.2%
Somalia	26 471	1361	5.1%
Sudan	62 059	4929	7.9%
Syrian Arab Republic	55 769	3149	5.6%
Tunisia	1 038 668	28 509	2.7%
United Arab Emirates	895 264	2302	0.3%
Yemen	11 817	2148	18.2%