Long COVID: What you Should Know

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WHAT IS LONG COVID?

Some people who have been infected with COVID-19 can experience long term effects, known as post-COVID conditions or long COVID. The Centers for Disease Control and Prevention (CDC) has a website devoted to long COVID, including the science behind long COVID.

DEFINING LONG COVID

Several entities have worked to develop a clinical definition for long COVID, including:

- The CDC and the U.S. Department of Health and Human Services developed a working definition of post-COVID conditions.
- The World Health Organization has developed a case definition for long COVID.
- The National Institutes of Health (NIH) in the United Kingdom (UK) published guidelines for managing the long-term effects of COVID-19, which includes a clinical definition.
- Furthermore, long COVID has been added as a diagnosis under the Americans with Disabilities Act.

FREQUENCY OF LONG COVID

The frequency of long COVID is not really known due to the lack of one definitive, agreed upon definition. However, several analyses have been conducted to better understand the frequency.

- In one systematic review of nine studies, it appears that long COVID occurs in between 10 to 35 percent of people who become infected. The severity of symptoms varies from very mild to severe.
- Another meta-analysis of 81 studies found long COVID symptoms varied by symptom and severity but occurred in about 22 to 32 percent of people infected with COVID-19.

A recent review of long COVID studies found that the occurrence has decreased with each new variant, and the Omicron variant is associated with long COVID rates ranging from 5 to 25 percent.

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DURATION OF LONG COVID

The uncertainty about the exact clinical definition of long COVID also makes it hard to pinpoint the duration. Most people do recover from long COVID over time, often within a few weeks to months. The exact duration varies by symptom and among different individuals.

The UK NIH guideline summarizes data on characteristics associated with having a longer duration of long COVID, which includes having a chronic disease such as asthma, being hospitalized for COVID, smoking, being overweight or obese, or having poor mental health. It also appears that women are more likely to develop long COVID.

PREVENTION OF LONG COVID

The best way to prevent long COVID is to avoid becoming infected. This includes avoiding high risk exposure situations, wearing a source control mask when in public to reduce the risk of transmission, and getting vaccinated.

There is emerging data showing that getting vaccinated and staying up to date with boosters can reduce your risk of developing long COVID should you have a breakthrough infection.

- A review by UK NIH in August 2022 of all available evidence from nine studies concluded "there is a likely benefit for vaccination to reduce the occurrence of long-term effects of COVID-19 in people who were vaccinated prior to SAR-CoV-2 infection." This included four cohort studies from the United States, two cohort studies in Europe (UK and Italy), and longitudinal study in the United States that all demonstrated reduced incidence of long COVID among those vaccinated prior to infection.
- A study of U.S. Veterans compared those who were vaccinated and had a breakthrough infection with those who were unvaccinated and had an infection. The study found being vaccinated reduced the risk of long COVID symptoms by about 20 percent.

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- In another study published in JAMA, it was found that among health care workers in Italy, vaccination lowered the occurrence of long COVID from 41.8 percent among unvaccinated to 30 percent among fully vaccinated and 17 percent with one or more boosters.
- A more recent systematic review of multiple studies from a September 2022 review found that vaccinated individuals have a 29 percent lower risk of developing long COVID.

It is not yet known if antiviral treatments help lower the risk of developing long COVID. They significantly lower the risk of developing severe symptoms and hospitalizations, which have been shown to be related to an increased risk of developing long COVID. However, this has not yet been evaluated.

TREATING LONG COVID

There is no evidence that shows pharmacologic treatments, vitamins, or supplements exist to treat people with long COVID. This may be related to the limited number of studies conducted to date. Efforts to date to identify treatments for long COVID include:

- There are several studies to determine if a booster vaccine helps treat long COVID. The data is mixed based on a review of published studies, and the UK NIH (p. 23) concluded that there does not appear to be a benefit for those already with long COVID to getting an additional booster.
- Evidence from five randomized controlled trials suggests that physical rehab can help with symptoms.
- Supportive care or treatments for symptoms can help.

LONG COVID RESEARCH EFFORTS

There are a number of NIH-funded research studies to evaluate treatment and management of long COVID. Increased enrollment in these studies may be the best way to learn what helps and does not work.

Note: This document is for informational purposes only and does not constitute medical advice. Based on data and scientific reports available as of January 25, 2023.