## **EDITORIAL**

# Long COVID or Post COVID-19 Syndrome

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Most people who develop COVID-19 fully recover, but current evidence suggests approximately 10%-20% of people experience a variety of mid- and long-term effects after they recover from their initial illness. These mid- and long-term effects are collectively known as post COVID-19 condition or "Long COVID."

According to WHO,1

"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 and 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."

#### Risk factors

According to a King's College London study initially posted on 21 October 2020 risk factors for long COVID may include:<sup>2</sup>

- · Age particularly those aged over 50
- Obesity
- Asthma
- Reporting more than five symptoms (e.g., more than a cough, fatigue, headache, diarrhoea, loss of sense of smell) in the first week of COVID-19 infection; five is the median number reported.
- Gender Women are less likely to develop severe acute COVID but more likely to develop long COVID than men. Some research suggests this is due primarily to hormonal differences, while other research points to other factors, including chromosomal genetics, sex- dependent differences in immune system behaviour; non-biological factors may also be relevant.

### **Symptoms**

Symptoms after Long COVID are highly variable and wide ranging. The most common symptoms of post COVID-19 condition include:<sup>3</sup>

- · extreme tiredness (fatigue)
- · shortness of breath
- · loss of smell
- · muscle aches

However, there are lots of symptoms you can have after a COVID-19 infection, including:

- problems with your memory and concentration ("brain fog")
- chest pain or tightness
- · difficulty sleeping (insomnia)
- heart palpitations
- dizziness
  pins and needles
- joint pain
- depression and anxiety
- · tinnitus, earaches
- feeling sick, diarrhoea, stomach aches, loss of appetite
- a high temperature, cough, headaches, sore throat, changes to sense of smell or taste
- Rashes

#### Diagnosis

Diagnosis of Long COVID is mostly clinical. There isn't one single test to diagnose long COVID. Routine blood test, CXR, ECG is commonly done. It's a condition that isn't fully understood yet. So diagnosis based on excluding other diseases. For research purpose Xenon MRI is being used to study long COVID, because it provides patients and physicians with explanations for previously unexplained observations. Xenon MRI<sup>4</sup> can measure gas exchange and provide information on how much air is taken up by a patient's bloodstream, which is being researched in long-haul COVID patients. [89][90]Xenon MRI can quantify three components of lung function: ventilation, barrier

tissue uptake and gas exchange. It helps determine how well air is taken in by the lungs, absorbed into lung tissue, and taken up by the blood.

#### Management

Unfortunately, there isn't one single treatment or medication to treat long COVID. Everyone's experience is different, so it's important to chat to your GP about the symptoms you are experiencing. They can tell you how to best manage them, and let you know what other support is available. If long COVID is having a big impact on your life, you may be referred to a specialist rehabilitation service, or a specialist who looks after the symptoms you have. Provide integrated, multidisciplinary rehabilitation services, based on local need and resources. Healthcare professionals should have a range of specialist skills, with expertise in managing fatigue and respiratory symptoms (including breathlessness). Additional expertise may be needed depending on the age and symptoms of the person. The core team could include, but not be limited to, the following specialist areas:

- · occupational therapy
- physiotherapy
- · clinical psychology and psychiatry
- · rehabilitation medicine.

#### Recovering from long COVID

Recovery from long COVID varies. Some symptoms can improve quickly and others last longer. The chances of having long-term symptoms does not seem to be linked to how ill you are when you first get COVID-19.  $^5$ 

People who had mild symptoms at first can still have long-term problems. It's important to note that lasting effects aren't unique to COVID-19 – other viral illnesses can also have lasting effects. The study led by Leicester researchers described above suggests that among those who needed hospital treatment for the initial illness, it is common for it to last five months or more, and there are separate reports of it lasting 12 months or more (this includes both people who didn't need hospital treatment initially and those who did.

#### Conclusion

For reducing the risk of long COVID is to get all the vaccines recommended. The vaccine not only

reduces the risk of catching COVID-19, but there is also evidence that for those who do catch it, being vaccinated makes it less likely they will develop long COVID. But it doesn't remove the risk of long COVID entirely, and some research carried out in the United States suggests that among those who catch COVID, the risk may still be significant. So it's a good idea to also try to reduce your risk of exposure to COVID, including wearing face mask in crowded places.

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