

## - Virus

### To avoid Long Covid is to avoid Covid-19 infection

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Covid is a persistent state of ill health after Covid-19 infection that continues for more than three months and is not explained by an alternative diagnosis.

Patients with Long Covid experienced different combinations of symptoms — such as fatigue, shortness of breath, cough, anxiety, cognitive impairment or brain fog, and muscle pain — that get worse after physical activities.

These symptoms could be driven by a direct effect of virus infection and might be explained by several hypotheses, including abnormal immune response, hyperactivation of the immune system, or autoimmunity. Indirect effects — including reduced social contact, loneliness, incomplete recovery of physical health and loss of employment — could affect psychiatric symptoms.

The Covid-19 Long-term Effects And Recovery (CLEAR) study team from Universiti Malaya conducted an online survey among Covid-19 survivors from July to September last year during the Movement Control Order.

A total of 732 respondents participated. One in five had Long Covid. The most commonly reported symptoms were fatigue, brain fog, depression, anxiety, insomnia and joint or muscle pain.

Females were found to have 58 per cent higher odds of experiencing Long Covid compared with males.

According to the autoimmune hypothesis, females have a stronger immune response than males due to genetic and hormonal factors.

This contributes to a more active immune response where activation of white blood cells, production of inflammatory markers and antibodies are stronger than males.

This could be seen as a double-edged sword as it appears protective against severe symptoms and deaths from Covid-19, but it could bring about the emergence of autoimmune inflammatory symptoms in Long Covid.

Patients with moderate and severe levels of acute Covid-19 had 3 to 3.6 times odds for Long Covid compared with those without symptoms.

Those without symptoms or with mild symptoms also experienced Long Covid (10 and 17.5 per cent respectively) compared with those in the moderate (26.7 per cent) and severe (30.4 per cent) categories.

This may be explained by the immune response to the SARS-CoV-2 virus, which stimulates the production of cytokines and other inflammatory mediators, with higher concentrations found in those with a more severe Covid-19 condition.

The multi-systemic inflammatory response to the virus may also be responsible for persistent Covid-19 symptoms in survivors.

To avoid Long Covid is to avoid Covid-19 infection.

We should get vaccinated or boosted, wear masks, maintain physical distancing, practise hand hygiene, avoid crowded and poorly ventilated places, and get tested if we have symptoms.

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