

On Alert For Long-Haul COVID-19: What Mental Health Providers Need To Know – UP DATE

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Long-Term Neurological Effects of COVID

Italian researchers gave post COVID-19 EEGs and MRI as well as neurological exams two months and 10 months post acute COVID-19 infection. This group was compared to a matched group of people who never had COVID-19. They found the COVID-19 patients had significant EEG and MRI abnormalities 2 months after they left the hospital when compared to the controls. However, 10 months after hospitalization the COVID-19 patients had significantly less cognitive difficulties and improved EEGs. They also found those COVID patients who had more problems with taste distortion and hyposmia during the acute phase had more memory problems long term.

Cecchetti, G. et al. (March 6, 2022). Cognitive, EEG, and MRI features of COVID-19 survivors: a 10-month study. Journal of Neurology. DOI: doi: 10.1007/s00415-022-11047-5.

How Many Died From COVID-19?

As of March 23, 2022 John's Hopkins University of Medicine estimates:

- **6,079,045 people world wide have died of COVID-19**
- **471,011,684 have been confirmed cases world wide of COVID-19**
- **971,327 Have died in the US due to COVID**
- **79,738,906 cases of COVID-19 have been confirmed in the US**

Coronavirus Resource Center (March 21, 2022). John's Hopkins University of Medicine. From website: <https://coronavirus.jhu.edu/>

However The Above Estimate May Be Three Times Lower than it Actually is!

A research from Great Britton estimates the world death toll for COVID -19 is three times higher than estimated. This is due to lags in reporting data, areas of the world that are hard to access, and places which do not have the resources to record such data.

Wise, J. (March 11, 2022). Covid-19: Global death toll may be three times higher than official records, study suggests. British Medical Journal. DOI: [10.1136/bmj.o636](https://doi.org/10.1136/bmj.o636) .

Number of COVID-19 Deaths Three Times Higher Than Original Thought?

A study conducted by the “COVID-19 Excess Mortality Collaborators” has indicated the number of deaths worldwide estimated by the Centers for Disease Control and Prevention since January 1, 2020 is only 1/3 of the actual number. These scientists estimate 18,200,000 have died of COVID-19 since then. They indicated many types of disparities in the reported data and how the data was collected worldwide to account for this.

Wang, H. et al. (March 10, 2022). Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21. The Lancet. DOI: [10.1016/S0140-6736\(21\)02796-3](https://doi.org/10.1016/S0140-6736(21)02796-3).

Depression and Anxiety with COVID-19

A recent observational study out of Iceland and Great Britton indicated that acute COVID-19 patients who were bedridden for 7 or more days, or 22.3% of COVID-19 patients showed significantly higher symptoms of depression and anxiety than those who were not bed ridden. This lasted up to 16 months after the acute COVID-19 phase.

Magnúsdóttir, I. et al. (March 14, 2022). Acute COVID-19 severity and mental health morbidity trajectories in patient populations of six nations: an observational study. The Lancet. DOI: [10.1016/S2468-2667\(22\)00042-1](https://doi.org/10.1016/S2468-2667(22)00042-1).

COVID-19 Can Cause Fungal Infections

- Called mucormycosis and commonly called Black Fungus patients with COVID-19 can contract this during the acute phase.
 - This requires immediate treatment with an antifungal medication.
- Another fungus that can attack people with COVID-19 and weakened immune systems is aspergillosis. This also requires immediate treatment with antifungals. This fungus causes severe lung problems and is usually found in patients that have been ventilated.
- Another fungus, Candida auris, is also infecting those with COVID
- Fungal pneumonias can look like COVID-19

Author (March 2, 2022). Fungal Diseases and COVID-19. Centers for Disease Control and Prevention. From website: <https://www.cdc.gov/fungal/covid-fungal.html>.

Brain Fungus and COVID-19

There is a subset of patients with type 2 diabetes whom have been treated with steroids develop rhino-orbito-cerebral fungal infections when they contact acute COVID-19. This is infection of the nasal cavity, olfactory bulb, and brain. This can also cause the carotid artery blockage and stroke, blindness and death. Intravenous antifungal treatment is indicated. Removal of the fungus may require surgical scraping of it off the infected area. Prognosis is not good.

Sanghvi, D. et al. (November, 2021). Imaging of COVID-19-associated craniofacial mucormycosis: a black and white review of the “black fungus.” Clinical Radiology. DOI: [10.1016/j.crad.2021.07.004](https://doi.org/10.1016/j.crad.2021.07.004).

Early Visible Symptoms of Such A Fungus

Early symptoms of such a fungus:

- **“One-sided facial swelling**
- **Headache**
- **Nasal or sinus congestion**
- **Black lesions on nasal bridge or upper inside of mouth that quickly become more severe**
- **Fever”**

If you notice any of these get to the hospital ASAP!

Author (January 14, 2021). Fungal Diseases: Symptoms of Mucormycosis. Centers For Disease Control and Prevention. From website: <https://www.cdc.gov/fungal/diseases/mucormycosis/symptoms.html>.

Male Sperm Count and COVID-19

A study out of Belgium of 100 men post-COVID indicated their sperm motility was significantly reduced in 60% of them one month after infection. This was also the case in 29% of the men after 2 months and 6% after more than 2 months. The scientists concluded that recover of a normal sperm count could take as long as 3 months after infection.

Donders, G.G.G. et al. (February, 2022). Sperm quality and absence of SARS-CoV-2 RNA in semen after COVID-19 infection: a prospective, observational study and validation of the Sperm COVID test. Fertility and Sterility. DOI: [10.1016/j.fertnstert.2021.10.022](https://doi.org/10.1016/j.fertnstert.2021.10.022).

Memory T-Cell To COVID-19

Chinese scientists discovered that patients who had recovered from COVID-19 retained enough memory T-cells even though they did not have active anti-bodies for COVID-19 in their systems to activate a defense against multiple COVID-19 strains.

Guo, L. et al. (March 23, 2022). SARS-CoV-2-specific antibody and T-cell responses 1 year after infection in people recovered from COVID-19: a longitudinal cohort study. The Lancet Microbe. DOI: [10.1016/S2666-5247\(22\)00036-2](https://doi.org/10.1016/S2666-5247(22)00036-2).

Cerebrospinal Fluid Inflammation Markers Found in Patients with Long-Haul COVID-19 “Brain Fog”

Researchers from the University of California, San Francisco Weill Institute of Neurosciences conducted a study of 33 patients Long-Haul COVID-19 patients, of which 23 had cognitive problems 10 did not. The scientists found 77% of patients with cognitive problems had inflammatory markers in their cerebrospinal fluid (CSF) with cognitive impairment. Patients without differences in their CSF had no cognitive impairment. CSF samples were collected on average 10 months after patients' first COVID symptoms. These results lend more evidence to the theory that Brain Fog is biological in nature and can be found in those with less severe cases of COVID. More research is needed.

Burton, K.W. (April 1, 2022). More Evidence COVID 'Brain Fog' Is Biologically Based. MedScape Psychiatry. American Academy of Neurology (AAN) 2021 Annual Meeting. Abstract 1162. To be presented April 7, 2022. From website: https://www.medscape.com/viewarticle/971408?spon=12&uac=360456CX&impID=4140488&sso=true&faf=1&src=WNL_mdpls_220405_mscpedit_psych#vp_1.

Post COVID-19 Symptom Impact

A German study of over 11,000 subjects, 3.5 percent of which had been admitted to hospitals were found to have one of 5 clusters of symptoms long-term after the acute phase of the disease (6 to 12 months). They were rapid physical exhaustion, shortness of breath, concentration difficulties, chronic fatigue, memory disturbance, and altered sense of smell. Better than 20 percent prevalence was found with each of the symptom clusters in affected patients and 28.5 percent of the patients had symptoms 6 to 12 months after initial infection. Although age did not appear to affect severity, being female did. Being older did appear to affect significant reduction in the ability to work in just over 10 percent of the subjects.

Raphael, P. et al. (March 15, 2022). Prevalence, determinants, and impact on general health and working capacity of post-acute sequelae of COVID-19 six to 12 months after infection: a population-based retrospective cohort study from southern Germany. MedRxIV. DOI: 10.1101/2022.03.14.22272316.