

## Cognitive Connections to COVID Recovery

For thousands of people, recovery after a COVID-19 infection comes with a laundry list of issues, some neurological. These cognitive cases run the spectrum from mild difficulties focusing on tasks to major memory problems or even rare cases of COVID-induced psychosis.

[Researchers are finding](#) that COVID-related cognitive symptoms can not only impact people of all ages, but can also linger for months.

The most common post-COVID neurological complaint is brain fog. Dr. Deepak Nair is an OSF HealthCare vascular and critical care neurologist. He says brain fog, despite its seemingly flippant name, can severely impact someone's day-to-day life.

"Brain fog is such a funny, silly term for something that I think can be profound and really disabling for people," he remarked. "Brain fog itself is a constellation of different symptoms. When we use the term brain fog that can be everything from just mild fatigue and just not feeling like you're running on all cylinders, to significant impairments of memory, concentration, focus, and maybe even edging into more what we call focal neurological deficits - so distinct parts of the brain not functioning the way they're supposed to."

Despite the correlation with a novel virus, Dr. Nair says neurological issues after acute illness are nothing new. Other infections like West Nile, meningitis or Lyme disease also have a history of impacting memory and other cognitive functions post-infection. Dr. Nair says the act of recovery itself can take a toll on the brain.

"Even after the acute illness of an infection like this, your body is still going through a lot of phases of recovery, and some of those on a very, like molecular-chemical level," explained Dr. Nair. "So some of that might take a prolonged amount of time to really reset back to baseline. And some of it is just waiting it out and being patient with ourselves."

Also alarming have been [numerous](#) published cases of COVID-induced psychosis in patients of varying ages. In many of these cases, patients demonstrated acute new-onset psychosis, meaning they had never experienced psychosis prior to infection.

These symptoms, while rare, can include hallucinations, delusions and generally disordered thinking. Dr. Nair says this usually happens during or immediately after the acute phase of the illness.

"After an acute illness, some of those chemical changes that are happening in the brain can also cause psychosis. And this is not just in the setting of COVID, but really any severe illness. And so, our normal ways of knowing what's real, what's not, and being able to tell the difference between like, for example, dream state versus wakeful state, we kind of take a lot of this for granted. But there's a huge chunk of machinery inside your head that has to do all that work to be able to tell us what those things are. So those pathways and networks inside the brain can be impaired, both during the acute illness and afterwards," said Dr. Nair.

Luckily, early research has shown the majority of COVID patients who suffer from cognitive issues post-infection will have short-lived symptoms that will improve over time. There is, however, a subset of patients dealing with prolonged cognitive illness.

If you or a loved one is in the latter group, Dr. Nair suggests talking with your primary care physician about all lingering symptoms including brain fog or other neurologic symptoms such as weakness, numbness, or loss of smell or taste.

OSF HealthCare has also created the [COVID Recovery Clinic](#), a group of specialists who work with primary care physicians to manage any issues a patient is experiencing post-COVID infection.