

# Feeling Foggy? How to Fight Post-COVID Brain Fog

Long-lasting symptoms following COVID-19 infection can drag on for weeks or even months and range from headaches and difficulty breathing to loss of smell and fatigue. The post-COVID condition known as “brain fog” can be particularly frustrating and disruptive to daily life.

Experiencing brain fog can include thinking and processing information at a slower speed, trouble finding the right words, forgetfulness, mental confusion/feeling in “a daze,” and memory issues. These symptoms can follow asymptomatic, mild, or severe COVID-19 disease.

“Post-COVID brain fog is frequently reported and interferes with most tasks of daily living, yet it’s not formally recognized as a medical or psychological condition,” says Bonnie Levin, Ph.D., director of the Division of Neuropsychology and Cognitive Neuroscience and a neuropsychologist with the University of Miami Health System. “My goal is to examine the individual components and fully characterize the constellation of symptoms.”

“What we’re most in the dark about is why some people experience long-haul brain fog, and others don’t,” she says. “Of those who develop brain fog, there’s little agreement about what is happening and why. We don’t have a means of diagnosing long-haul COVID-19 brain fog.”

Researchers have identified the following possible causes of long-haul symptoms following coronavirus infection.

## **Brain fog may be triggered by one or a combination of these causes.**

- direct viral damage
- injury to the blood vessels (microvascular)
- abnormal cerebrospinal fluid (liquid around the brain and spinal cord)
- remnants of the virus persist and trigger inflammation
- dormant viruses in the body (like herpes HSV1/HSV2 and Epstein Barr) get reactivated
- autoimmune responses develop and mistakenly attack normal cells
- abnormal blood clotting caused by inflammation

The causes and exact symptoms of brain fog are difficult to pin down because they are also side effects of many other medical conditions and diseases.

## **Scientists are trying to determine if post-COVID brain fog is caused by the same mechanisms that trigger similar neurological issues in patients with:**

- hepatitis C
- fibromyalgia
- lupus
- HIV
- Epstein Barr
- menopause

- concussion
- nutritional deficiencies (like vitamin D and folate)
- postural orthostatic tachycardia syndrome
- “sick building syndrome” (caused by air pollution)
- those undergoing chemotherapy (known as “chemo brain”)

“We know that this is not dementia, and it’s not an irreversible condition,” Dr. Levin says. “Science is suggesting that long COVID-19 brain fog is likely reversible, and the passage of time will help ease symptoms.”

## 10 ways to cope with brain fog



Whether you are trying to avoid severe COVID disease and long-haul brain fog or are already managing these symptoms, the advice from experts is the same. Take care of your overall health.

1. **Get more physical activity.** “When you feel physically weak, exercise. When you improve your exercise regimen, you can increase strength and reduce weakness. The same applies for brain fog,” Dr. Levin says. “If you aren’t going to the gym, find other ways of exercising (both cardio and strength training) to support your recovery at home or outdoors.”

2. **Keep your brain stimulated.** “Repeated mental engagement can improve mindfulness,” Dr. Levine says. Reading, thought-provoking activities like listening to a podcast, creating an art project or practicing an instrument, and playing brain engagement games can challenge you cognitively.
3. **Be aware of your emotional wellbeing.** Don’t ignore feelings of anxiety, apathy, or depression. “There’s a relationship between emotional wellbeing and cognitive health,” she says. The goal is to motivate yourself to become more actively engaged in your environment, which can help reduce stress and signs of depression. Avoid isolating yourself, and stay socially active.
4. **Get enough quality sleep.** “With COVID-19, you may be experiencing fatigue, so we don’t want to encourage even more sleep if you’re already sleeping too much. But, quality sleep is critically important for recovery,” she says. “Implement good sleep hygiene.”
5. **Maintain a healthy weight.** “Obesity and diabetes make it more likely that once infected, you’ll experience severe COVID-19 disease and develop long-haul symptoms more severely,” Dr. Levin says.
6. **Improve your diet.** “There’s data about nutrition and how a healthy diet is critical to maintaining brain health,” she says. “Following the Mediterranean diet is always recommended to support cognitive function and longevity. A diet low in added sugars and processed foods and high in flavonoids is strongly recommended.”
7. **Reduce your alcohol intake.** Drinking can slow recovery from COVID-19, long-haul symptoms, and many other acute illnesses. Moderate to heavy alcohol consumption can trigger inflammation, reduce cognitive function and memory, interfere with sleep, and worsen depression.
8. **Keep your cardiovascular risk factors under control.** “Vascular inflammation is part of risk factors like obesity, diabetes, high cholesterol, heart disease, and high blood pressure,” Dr. Levin says. You can make

lifestyle and dietary changes to help reduce chronic inflammation.

9. **Develop life hacks and memory tools to compensate.** When your memory isn't working right, and you're struggling to stay focused, it can be hard to accomplish daily tasks and take care of your responsibilities.

## To help you stay on track, Dr. Levin recommends:

- make detailed to-do lists
- utilize memory and recall strategies
- take notes and set calendar reminders on your phone
- avoid saying 'yes' to too many obligations, so you don't overwhelm yourself

To encourage lasting changes in your day-to-day routine and organizational skills, try the Plan Do Study Act (PDSA) problem-solving model.

"Prepare a strategy, study, monitor, and act on your observations," Dr. Levin says. "Use external devices like your phone to record new information. To help you understand and remember it, use multilevel encoding techniques like associating new information with your existing sensory information. Use visual cues (like prominently displayed reminder notes or a basket of clean laundry placed near the TV). Designate areas within your home for storing and finding commonly used items you may otherwise misplace."

## Remember that brain fog is temporary and

## not all in your head.

“Lots of people are experiencing this condition. I see patients with every kind of mental status change, including long-haul patients,” Dr. Levin says. “Don’t assume that because you feel exhausted, this will last forever, and you can’t do anything about it.”

---

Dana Kantrowitz is a contributing writer for UMiami Health News.

---

### LEARN MORE



### Can you improve your balance?

Balance is a gift made possible by strength and coordination and our sense of body in space. We don't recognize how precious it is until we notice a change in how we

move. Read more.

Content Type Article