# Excess weight linked to greater risk of lingering neurologic symptoms in long COVID



# The Link Between Excess Weight and Long COVID Neurologic Symptoms

Recent research has unveiled a concerning correlation between excess body weight and the persistence of neurologic symptoms in long-COVID patients. A meta-analysis published in PLOS One highlights that nearly 140,000 individuals were studied, revealing that those with excess weight are more likely to experience issues such as headaches, vertigo, sleep disturbances, and depression.

The analysis, which encompassed 79,050 participants classified as having excess weight and 57,926 normal-weight individuals, alongside a breakdown of 30,694 people with obesity compared to 107,612 non-obese individuals, draws upon substantial data to establish these links. Specifically, the research found that individuals with excess weight experienced a 21% increase in rates of depression, a staggering 43% increase in memory issues, and a 30% increase in sleep disturbances.

Obesity in particular demonstrated a significant association with persistent headache and numbness, with risk ratios of 1.45 and 1.61 respectively. Moreover, it was indicated that obesity could lead to a continued loss of taste and smell long after initial COVID-19 symptoms have resolved. The authors of the study suggest that excess weight may be a contributing factor to these enduring symptoms, which persist for over 12 weeks post-COVID onset.

The mechanisms underlying these associations are not yet fully understood. However, researchers speculate that pre-existing metabolic disorders common in overweight individuals may play a pivotal role. Adipose tissue, the body’s fat stores, may not only facilitate the entry of SARS-CoV-2 but might also act as a reservoir, contributing to prolonged viral presence and inflammatory responses.

The implications of these findings resonate profoundly, especially as the global health community transitions into a post-pandemic era. The dual challenges of combatting ongoing long-COVID effects while addressing rising rates of obesity and related mental health issues create a complex public health landscape. The authors caution against the potential for overlapping pandemics of long COVID and obesity, noting that the management of these intertwined issues is crucial for holistic health outcomes.

Support for the impact of obesity on COVID-19 outcomes is bolstered by additional literature, such as a study in the Journal of Clinical Medicine. This research underscores that individuals with obesity not only face elevated risks of severe disease and hospitalization but are also more likely to experience serious complications like acute respiratory distress syndrome and kidney injury. These findings highlight the urgent need for effective weight management strategies to mitigate the severity of COVID-19 and its aftermath.

In conclusion, as our understanding of long COVID evolves, so too must our approaches to health and wellness. The connection between excess weight and persistent neurologic symptoms serves as a stark reminder of the interplay between physical health, long-term illness, and mental wellness. Addressing these challenges through comprehensive healthcare strategies will be essential in fostering recovery and resilience in affected populations.

## Reference Map:

* Paragraph 1 – [[1]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms), [[2]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms)
* Paragraph 2 – [[1]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms), [[2]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms)
* Paragraph 3 – [[1]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms), [[4]](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7369070/)
* Paragraph 4 – [[1]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms), [[2]](https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms)
* Paragraph 5 – [[3]](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7369070/), [[4]](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7369070/)

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## Bibliography

1. <https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms> - Please view link - unable to able to access data
2. <https://www.cidrap.umn.edu/covid-19/excess-weight-long-covid-patients-linked-neurologic-symptoms> - A meta-analysis published in PLOS One involving nearly 140,000 participants found that excess body weight is linked to experiencing long-COVID neurologic symptoms, including headaches, vertigo, sleep problems, and depression. The study included 79,050 people with excess weight compared to 57,926 normal-weight individuals, and 30,694 individuals with obesity compared to 107,612 non-obese individuals. Excess weight was associated with a higher rate of depression (risk ratio [RR], 1.21), memory issues (RR 1.43), and sleep disturbance (RR, 1.30). Obesity was significantly associated with persistent headache (RR 1.45) and numbness (RR 1.61). The authors suggest that excess weight might contribute to the development of these symptoms that persist for more than 12 weeks after COVID-19 onset. They also note that adipose tissue may play a role in SARS-CoV-2 entry and deposition, potentially serving as a reservoir for virus spread. The mechanisms behind the association between neurologic symptoms and excess weight are not fully understood but may involve metabolic disorders present before COVID infection.
3. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7369070/> - A study published in the Journal of Clinical Medicine examined the impact of obesity on the severity and outcomes of COVID-19. The researchers found that obesity was associated with an increased risk of severe disease, higher rates of hospitalization, and a greater likelihood of requiring intensive care. The study also noted that obese patients had a higher risk of developing complications such as acute respiratory distress syndrome (ARDS) and acute kidney injury. The authors concluded that obesity is a significant risk factor for adverse outcomes in COVID-19 patients and emphasized the importance of weight management in reducing the severity of the disease.
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