

This Is What Working Too Much Does to Your Brain

Here's a new reason to call out of work—you've put in so many hours that your brain is busy changing.

A new study published in the [Occupational & Environmental Medicine](#) journal found changes overworked individuals' brain structure.

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To reach their conclusion, researchers looked at 110 healthcare workers who were classified into overworked and non-overworked groups.

People in the former group, who worked 52 or more hours per week, were typically younger, earlier on in their career, and more highly educated than those in the latter group.

Researchers compared data and MRI scans in order to analyze participants' brain volume. That allowed the scientists to compare gray matter levels and label structures in the brain.

Working too much, the study found, can cause structural brain changes, particularly in regions linked to cognition and emotion.

What the Findings Mean

Overworked individuals exhibited a 19 percent increase in volume in the left caudal middle frontal gyrus portion of the brain, as well as peak volume increases in 17 regions of the brain, when compared to non-overworked people.

In the study, the authors noted, that the structural brain changes in overworked individuals “may reflect neuroadaptive responses to chronic occupational stress,” though it noted that “the exact mechanisms remain speculative.”

“People who worked 52 or more hours a week displayed significant changes in brain regions associated with executive function and emotional regulation, unlike participants who worked standard hours,” researchers said in a press release, according to [CNN](#).

Joon Yul Choi, who co-authored the study, told the outlet that their findings could be “at least in part, reversible” if environmental stressors are reversed.

Now that science has established evidence linking prolonged working hours to structural brain changes, researchers believe that further research is necessary to understand the long-term cognitive and emotional implications of overwork.

“The results underscore the importance of addressing overwork as an occupational health concern,” the study read, “and highlight the need for workplace policies that mitigate excessive working hours.”