Excessive brain activity linked to a shorter life

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One key to a longer life could be a quieter brain without too much neural activity, according to a new study that examined postmortem brain tissue from extremely long-lived people for clues about what made them different from people who died in their 60s and 70s.

“Use it or lose it” has dominated thinking on how to protect the aging brain, and extensive research shows there are many benefits to remaining physically and mentally active as people get older. But the study, published in the journal Nature, suggests more isn’t always better. Excessive activity — at least at the level of brain cells — could be harmful.

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Angela Gutchess, a professor of psychology at Brandeis University, said when people age and are tested in brain scanners, there are many changes in activity in the prefrontal cortex, the part of the brain where the Harvard researchers studied REST.

In some cases, she said, studies have shown older adults activate more brain circuits compared to younger people to complete a task. But the implication of this change is unclear: These patterns of activation may be an indication of a less efficient brain in older people, or of attempts to compensate.