

Morning people and night owls show different brain function (w/Video)

June 23 2009

Are you a "morning person" or a "night owl?"

Scientists at the University of Alberta have found that there are significant differences in the way our brains function depending on whether we're early risers or night owls.

Neuroscientists in the Faculty of Physical Education and Recreation looked at two groups of people: those who wake up early and feel most productive in the morning, and those who were identified as evening people, those who typically felt livelier at night. Study participants were initially grouped after completing a standardized questionnaire about their habits.

Using magnetic resonance imaging-guided [brain](#) stimulation, scientists tested muscle torque and the excitability of pathways through the spinal cord and brain. They found that morning people's brains were most excitable at 9 a.m. This slowly decreased through the day. It was the polar opposite for evening people, whose brains were most excitable at 9 p.m.

Other major findings:

- Evening people became physically stronger throughout the day, but the maximum amount of force morning [people](#) could

produce remained the same.

- The excitability of reflex pathways that travel through the spinal cord increased over the day for both groups.

These findings show that nervous-system functions are different and have implications for maximizing human performance.

Their findings were published in the June edition of the *Journal of Biological Rhythms*.

Source: University of Alberta ([news](#) : [web](#))

Citation: Morning people and night owls show different brain function (w/Video) (2009, June 23) retrieved 24 April 2024 from <https://medicalxpress.com/news/2009-06-morning-people-night-owls-brain.html>

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