We were made to move. Our need to move is embedded in our evolutionary biological networks for adaptation and survival. Our modern society, in contrast, has been made for us to be overly sedentary—we just sit too much. When we sit too much, we tend to gain white adipose tissue, and excess white adipose tissue leads to multiple adverse health consequences because of, in part, inflammation and decreased gene expression of important regulatory proteins such as PGC-1 (peroxisome proliferator-activated receptor gamma coactivator) alpha. But an underappreciated and surprising consequence of excessive sitting and a lack of exercise is emotion dysregulation; conversely, exercise improves emotional resilience.

My colleagues at Harvard University, Emily Bernstein and Rich McNally, examined the effect of exercise on emotion with a particular focus on rumination, enhanced coping self-efficacy, and symptoms of depression, anxiety, and stress. They examined a sample of 104 people for retrospective reports of exercise along with their current state as well as looking prospectively at their response to and recovery from an acute stressor with and without acute exercise.

Cross-sectionally, people who exercised regularly generally felt better than those who did not. They ruminated less, were more able to cope with stress, and were more able to process their emotions. Prospectively, those who had an acute cycling activity compared to those who stretched recovered faster from the negative effects of an acute stressor and had increased resilience. Bernstein and McNally speculate that exercise may not influence the tendency to ruminate but instead may buffer the effects of rumination. They are cautious about over-interpreting their results; for those who are interested, it is worth reading their article for its subtleties.

Should we prescribe exercise? We could, but the challenge is to find methods that would lead to persistent behavioral change for those who do not exercise. My colleagues and I are conducting an online intervention study to compare a Fitbit (San Francisco, CA) alone, a Fitbit plus cognitive behavioral therapy, or a Fitbit plus mindfulness-based cognitive therapy to get people with mood disorders and cardiovascular risk to move more. The study is funded by the Patient-Centered Outcomes Research Institute with donations of the device from the Fitbit company. Stay tuned and move.

REFERENCES


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