

Study Shows Exercise May Mitigate Mental Risks Caused by 'Belly Fat'

December 17 2008

(PhysOrg.com) -- New research from the University of Maine Department of Psychology has established that that belly fat carried around the middle (central adiposity) is related to decreased cognitive (mental) functioning, with adjustment for multiple cardiovascular risk factors.

However, adjustment (statistical control) for physical activity weakened this relationship significantly. They also reported data consistent with the hypothesis that regular exercise has a measurably positive influence on mental ability and cognitive functioning.

This finding brings new information to earlier research by the UMaine researchers and others who previously established a link between being obese and decreased cognitive function.

In a recent study of more than 900 people participating in an ongoing, 34-year-old research project, psychology graduate student Greg Dore and UMaine psychology professors Merrill F. "Pete" Elias, Michael Robbins and Penelope K. Elias, and Marc Budge of the Australian National University Medical School, looked at the relationship between belly fat and cognitive performance. They found that study participants with less belly fat performed better in a large battery of mental tests than participants who carried extra pounds around the middle. Further, the study revealed that participants who reported getting regular exercise performed better on the tests, regardless of their weight.

The researchers discuss their findings in an article, "Relation between Central Adiposity and Cognitive Function in the Maine-Syracuse Study: Attenuation by Physical Activity," published recently in the *Annals of Behavioral Medicine*, a leading behavioral medicine journal.

The Eliases, Robbins and Dore do not define the amount of exercise an individual needs to mitigate effects of excess belly fat. But they do say they support recommendations set forth by the Centers for Disease Control, that about 30 minutes a day of moderate physical activity like walking, hiking, bicycling or swimming is a reasonable goal for both better health and better cognitive performance.

Additional benefits of regular exercise include improved circulation and the development of "collateral circulation," microscopic arteries that facilitate blood supply to the heart and brain. The health benefits of exercise can be substantial, and any exercise is better than none, the researchers say.

The Maine Syracuse Longitudinal Study, which Elias began in 1975 as a professor at Syracuse University and David HP Streeten, professor of medicine at State University Medical Center in New York. In collaboration with Robbins and Penelope Elias, this work has continued at the University of Maine for more than 33 years and has resulted in several hundred published papers and presentations by Pete Elias and colleagues.

Dore was the principal author of the latest article, which reports on the study of central adiposity and cognitive function. He has co-published six scientific articles, including original research papers, editorials and letters to the editor, since he has been in training, and he has several that have been accepted for publication, pending revision.

Source: University of Maine

Citation: Study Shows Exercise May Mitigate Mental Risks Caused by 'Belly Fat' (2008, December 17) retrieved 30 April 2024 from <https://medicalxpress.com/news/2008-12-mitigate-mental-belly-fat.html>

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