

Regular activities of daily living contribute to reduction of cognitive impairment

Toronto, ON (July 19, 2011) – Engaging in regular “non-exercise” physical activity of daily living reduces the incidence of cognitive impairment in older adults, suggests a new study that makes use of a more objective and encompassing measurement of exercise than traditional research.

Past research has suggested that physical activity is associated with reduced rates of cognitive impairment in older adults, however much of the research relied on self reports of physical activity, which is not always accurate, and they tended to focus on moderate or vigorous exercise, therefore excluding low-intensity daily living physical activity.

“What this study did was allow us to also capture the ‘non-exercise’ type of low-intensity physical activity such as movement around the house, chores, postural allocation and fidgeting, which accounts for most activity energy expenditures (AEE) in people who do not regularly exercise,” says Dr. Laura Middleton, principal investigator of the study and postdoctoral fellow at the Heart and Stroke Foundation Centre for Stroke Recovery at Sunnybrook Health Sciences Centre. “We found that this more all-encompassing measure of activity (AEE) was important for cognition: the higher the AEE, the lower the rate of cognitive impairment. We therefore are able to confirm that activity is inversely associated with the likelihood of developing cognitive impairment.”

Older adults with higher total daily activity had a lower incidence of cognitive impairment, and this association was higher with AEE than for previous reports of self-reported physical activity. This research therefore addressed concerns that the results of past studies may be biased because of the use of self-reported physical activity.

The study, published in the upcoming July 25 issue of the Archives of Internal Medicine, involved measuring participants’ total energy expenditure by doubly labeled water, a technique that provides evidence of how much water a person loses and thus serves as an objective measure of metabolic activity.

The authors calculated participants’ activity energy expenditure (AEE), defined as 90 percent of total energy expenditure minus resting metabolic rate. The 197 participants, with an average age of 74.8 years, had no mobility or cognitive problems when the research began in 1998 to 1999. At that time, researchers assessed participants’ cognitive function, and followed up two to five years later with the Modified Mini-Mental State Examination.

“The mechanisms by which physical activity is related to late-life cognition are likely to be multi-factorial,” adds Dr. Middleton. “We are optimistic that even low-intensity activity of daily living may be a promising preventive strategy against cognitive impairment in the elderly. More research is needed.”

This study adds to a growing body of evidence that encourages promotion of ongoing physical activity, especially in late life, as a protective preventive strategy against cognitive impairment.