

Regular exercise in middle age protects against muscle weakness later in life

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A cross-sectional study by investigators from Tokyo University has found that exercising in middle age is a protective factor against sarcopenia and effective in maintaining muscle strength and physical performance. Sarcopenia is a disease associated with the ageing process, resulting in loss of skeletal muscle mass and muscle strength and/or function in the elderly. The multiple adverse health outcomes include physical disability, poor quality of life and premature death.

The study assessed the prevalence of sarcopenia and its association with [physical performance](#) in 1000 elderly Japanese participants (349 men and 651 women aged ≥ 65 years) enrolled in the Research on Osteoarthritis/Osteoporosis Against Disability (ROAD) Study. Handgrip strength, gait speed, and skeletal muscle mass were measured and other information collected, including exercise habits in middle age.

The prevalence of sarcopenia was 13.8% in men and 12.4% in women, and tended to be significantly higher with increasing age in both sexes. Factors associated with sarcopenia were chair stand time (odds ratio [OR], 1.09; 95% CI, 1.04-1.14), one-leg standing time (OR, 0.97; 95% CI, 0.96-0.99), and exercise habit in middle age (OR, 0.53; 95% CI, 0.31-0.90) after adjusting for age, sex and body mass index (BMI).

Analysis showed that exercise habit in [middle age](#) was associated with low prevalence of sarcopenia in older age and was significantly associated with grip strength, gait speed, and one-leg standing time after adjusting for age, sex and BMI.

The study was presented at the IOF Regionals 4th Asia-Pacific Osteoporosis Meeting, being held in Hong Kong from December 12–15, 2013.

More information: Abstract OC11: Prevalence of sarcopenia and its association with exercise habits in the elderly of Japanese population-based cohorts: the Road Study, Osteoporos Int, Vol. 2, Suppl. 4, [DOI: 10.1007/s00198-013-2536-x](https://doi.org/10.1007/s00198-013-2536-x)

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