

Higher intelligence score means better physical performance

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New research reveals a distinct association between male intelligence in early adulthood and their subsequent midlife physical performance. The higher intelligence score, the better physical performance, the study reveals. The Center for Healthy Aging and the Department of Public Health, University of Copenhagen, are behind this new study.

We would all like to stay independent, as we get older. In order to succeed, we need to be in good physical shape. This includes being able to cope with everyday physical activities such as getting dressed and carrying our own shopping. Scientists employ a number of tests, e.g. handgrip strength, balance and chair-rise, when measuring <u>physical performance</u>.



Researchers at the Center for Healthy Aging and the Department of Public Health at the University of Copenhagen have studied the association between male intelligence in <u>early adulthood</u> and their subsequent physical performance, aged 48-56. The study comprised 2,848 Danish males born in 1953 and in 1959-61, and the results have just been published in the scientific *Journal of Aging and Health*.

Avoiding decrease in physical performance in old age

"Our study clearly shows that the <u>higher intelligence</u> score in early adulthood, the stronger the participants' back, legs and hands are in midlife. Their balance is also better. Former studies have taught us that the better the results of these midlife tests, the greater the chance of avoiding a decrease in physical performance in old age", says PhD student Rikke Hodal Meincke from the Center for Healthy Aging and the Department of Public Health.

With a 10-point increase in intelligence score, the results revealed a 0,5 kg increase in lower back force, 1 cm increase in jumping height - an expression of leg muscle power, 0.7 kg increase in hand-grip strength, 3.7% improved balance, and 1.1 more chair-rises in 30 seconds.

Easier to stay physically active throughout life

"A feasible explanation for this connection between male intelligence in early adulthood and their midlife physical performance could be that people with a higher intelligence score find it easier to understand and interpret health information and thus have a healthier lifestyle, they may, for instance, exercise more regularly. Exercise can thus be viewed as a mechanism that explains the connection between intelligence and physical performance," Rikke Hodal Meincke elaborates.



She believes that the study's results are important for the future planning and targeting of initiatives that may help improve or maintain elderly peoples' physical performance. By way of example, this could include making it easier for everybody, regardless of abilities, to remain physically active throughout their lives. She does, however, stress that more studies are needed, in order to examine mechanisms that reveal exactly where to set in.

Previous research has shown that exercise, health status and socioeconomics influence physical performance. Furthermore, childhood factors may also influence physical performance in later life.

More information: *Journal of Aging and Health*, jah.sagepub.com/content/early/ ... 64315594139.abstract

Provided by University of Copenhagen

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