

Basic physical capability can predict mortality in later life

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People who are better at simple physical acts such as gripping, walking, rising from a chair and balancing on one leg are more likely to live longer, according to a new study published in the British Medical Journal today.

Measures of physical capability, such as grip strength, walking speed, chair rising time and standing balance ability, can predict mortality in older people living in the community, UK researchers found.

These measures are related to a person's ability to perform everyday tasks. There is growing interest in using such measures as simple screening tools to identify people who might benefit from targeted interventions such as strength training.

Researchers from the MRC Unit for Lifelong Health and Ageing reviewed 57 studies and found 28 that looked at physical capabilities in people of any age and recorded subsequent mortality. They excluded studies of people in institutions such as hospitals and care homes.

Most of those study authors were contacted by the research team and asked to complete a standardised results table and ultimately, after also obtaining unpublished results from five other studies, 33 sets of results were collated and included in the review.

The team found that, although there was some variation between studies, there was consistent evidence of associations between all four measures

of physical capability and mortality - people who performed less well in these tests had a consistently higher risk of death.

From 14 studies (including 53,476 participants) that dealt with grip strength, the death rate among the weakest people was 1.67 times greater than among the strongest people, after taking age, sex, and body size into account.

From five studies (including 14,692 participants) that dealt with walking speed, the death rate among people who were slowest was 2.87 times greater than among the people who were fastest, after similar adjustments.

Five studies (including 28,036 people) that dealt with chair rising showed that the death rate of people who were the slowest was almost twice the rate of people who were fastest at this physical task.

Most of the studies were carried out amongst older people, but the association of grip strength with mortality was also found in younger populations.

The authors say that this review has highlighted the paucity of studies in this field in younger populations, and they also call for more research to examine the associations between changes in capability with age and mortality, as a steep decline in physical capability may be a better predictor of mortality than is the absolute level at a single point in time.

They conclude: "Objective measures of physical capability are predictors of all cause [mortality](#) in older community dwelling populations. Such measures may therefore provide useful tools for identifying older people at higher risk of death."

Provided by British Medical Journal

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