

Poor Hand-Grip Strength Associated With Poor Survival

ScienceDaily (Feb. 9, 2010) — Poor or declining handgrip strength in the oldest old is associated with poor survival and may be used as a tool to assess mortality, found an article in *CMAJ (Canadian Medical Association Journal)*. The fastest growing segment of the elderly population is the group older than 85 years, classified as the oldest old.

Low handgrip strength has been consistently linked to premature mortality, disability and other health complications in middle-aged and older people. Handgrip strength, a simple bedside tool, can be an alternative way of measuring overall muscular strength.

This study included 555 individuals from the Leiden 85-plus survey of all 85 year olds in Leiden, The Netherlands. Their handgrip strength was measured at 85 years and then again at 89. The CMAJ study, led by researchers from The Netherlands, found that low handgrip strength, both at 85 and 89 years, and a greater decline in strength over time are associated with increased all-cause mortality. The researchers also found that handgrip strength has a greater impact on mortality as people age.

"The oldest old population has been underrepresented in previous studies," write Dr. Carolina Ling, Leiden University Medical Center, Department of Gerontology and Geriatrics and coauthors. "The objective of this study was to assess the association between muscular strength and mortality in the oldest old."

The underlying reasons why muscle strength and mortality are linked are not well known. The authors were unable to determine if muscle strength had a direct effect on mortality or if it was associated with other factors ultimately leading to death.

The authors conclude that measuring handgrip strength may not only identify older people at risk of a disability but may also aid in the survival of the elderly by being able to apply the correct strategies to help maintain muscle strength.

In a related commentary, Dr. Allen Huang, geriatrician at the McGill University Health Centre writes that the global population is getting older, and the fastest growing segment includes people 80-years and older. Society and the health care system need to acknowledge the rapid growth of this age group and prepare to meet its potential needs.

"Handgrip strength is an easy measurement for clinicians to obtain," states Dr. Huang, who is also an Associate Professor at the McGill University Faculty of Medicine. "Handgrip dynamometers, though not commonly found in physicians' offices, are simple, low maintenance devices."