

Study confirms vitamin D importance for older men

11 November 2013, by Jason Boudville



The study found that low vitamin D status of less than 50 nmol/l may be detrimental to survival in older men.
Credit: James Broad

The largest study of ageing men in Australia has revealed low vitamin D as an independent predictor of all-cause mortality in older males.

Researchers at the Western Australian Centre for Health and Ageing conducted the study as part HIMS; the Health In Men Study, commencing in 1996.

Blood samples were collected from participants and measured for plasma 25-hydroxyvitamin D by immunoassay, along with demographic, lifestyle and clinical characteristics.

These clinical data were collected again from the participants after an average of 5.3 years.

"Results found that older men with low vitamin D status [less than 50 nmol/l] are nearly twice as likely to be frail compared to those with higher vitamin D levels [greater than 80 nmol/l]," UWA School of Medicine and Pharmacology PhD researcher Dr Elizabeth Wong says.

"For older men who are non-frail at baseline and have low vitamin D levels, there is more than a 50 per cent increased risk of becoming frail at five years.

"[The finding] is that hypovitaminosis D predicts all-cause [mortality](#), independent of frailty status."

The findings are preceded by other studies investigating the association of frailty with other biomarkers, such as low free testosterone or high homocysteine levels.

Mortality rates were obtained from the death registry in WA's Data Linkage System.

While the study did show significant associations between hypovitaminosis D with frailty and all-cause mortality, Dr Wong says a causal relationship cannot be inferred.

"We found that low vitamin D status of less than 50 nmol/l may be detrimental to survival in [older men](#), an association which has been consistently reported in other cohort studies," she says.

"Frailty has also been linked to increased mortality in previous studies.

"When frailty status at baseline was adjusted for in our analyses, the association between low vitamin D and mortality persisted, implying that the association is not solely dependent on the occurrence of frailty at baseline."

Dr Wong recommends further clinical trials to be conducted to definitively conclude the [causal relationship](#) between hypovitaminosis D and frailty.

"These trials should be adequately powered and randomised, with a focus on physical performance and frailty," she says.

Further potential benefit of vitamin D

supplementation as a risk reduction strategy for combating [frailty](#) could then be implemented in the population especially older people who are hospitalised or residing in aged care facilities.

Provided by Science Network WA

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