Over 65s should take high dose vitamin D to prevent falls, say researchers

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A daily supplement of vitamin D at a dose of 700-1000 IU reduces the risk of falling among older people by 19% according to a study published on BMJ.com today. But a dose of less than 700 IU per day has no effect.

IU is an international unit of measurement for vitamins and other biologically active substances.

Each year, one in three people aged 65 and older experience at least one fall, with around 6% resulting in a fracture. Fall prevention has therefore become a public health goal especially as the older segment of the population grows.

Several trials have shown that vitamin D improves strength and balance among older people, while others have found no significant effect on the risk of falling.

So an international team of researchers analysed the results of eight fall prevention trials to assess the effectiveness of vitamin D in preventing falls among older individuals (aged 65 or more). Differences in study design and quality were taken into account to minimise bias.

The pooled results showed that benefit from supplemental vitamin D on fall prevention depended on treatment dose.

Supplemental vitamin D2 and Vitamin D3 were investigated. 700-1000

IU supplemental vitamin D per day (vitamin D2 or vitamin D3) reduced falls by 19% and up to 26% with vitamin D3.

This effect was independent of age, type of dwelling or additional calcium supplementation. The effect was significant within two to five months of starting treatment and extended beyond 12 months.

Supplemental vitamin D did not reduce falls at a dose of less than 700 IU per day.

The use of active forms of vitamin D did not appear to be more effective than 700-1000 IU supplemental vitamin D. Active forms of vitamin D also cost more and are associated with a higher risk for hypercalcaemia (elevated calcium levels in the blood) than standard supplemental vitamin D.

To reduce the risk of falling, a daily intake of at least 700-1000 IU supplemental vitamin D is warranted in all individuals aged 65 and older, say the authors.

Higher doses may be even more effective and should be explored in future research to optimise the fall prevention benefit with vitamin D, they conclude.

Source: British Medical Journal (news : web)