



Dietary Vitamin D Intake and Muscle Mass in Older Women. Results from a Cross-Sectional Analysis of the Epidos Study

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Titre Dietary Vitamin D Intake and Muscle Mass in Older Women. Results from a Cross-Sectional Analysis of the Epidos Study

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Mots-clés 25-hydroxyvitamin D [10], Calcium [11], controlled-trial [12], d deficiency [13], d supplementation [14], elderly-people [15], health [16], muscle mass [17], muscle strength [18], physical performance [19], Sarcopenia [20], strength [21], Vitamin D [22]

Résumé en anglais Objectives: Vitamin D intake may prevent physical performance decline through prevention of muscle mass loss. Our objective was to determine whether low dietary intakes were associated with low muscle mass (MM). Design and participants: Cross-sectional analysis of 1989 community-dwelling women (mean age 80.5 +/- 3.8years) from the EPIDemiologie de l'OSteoporose (EPIDOS) study were assessed at baseline. Measurements: Low intakes of vitamin D (<70 mu g/week) were estimated from the weekly dietary vitamin D intakes (self-administered food frequency questionnaire). Low MM was defined according to the appendicular skeletal muscle mass index assessed using Dual Energy X-ray Absorptiometry, divided by square height of less than 5.45 kg/m(2). Usual gait speed defined physical performance. Age, sun exposure, co-morbidities, education level, living arrangements, recreational physical activity, dietary protein and calcium intakes, bone mineral density, handgrip strength, and body mass index were considered as potential confounders.

Multivariate logistic regression analyses assessed the association between low vitamin D intakes and low MM. Results: Two-hundred and nine (10.5%) women with low MM were compared to 1,780 women with normal MM. In final model, obesity/overweight (Adjusted Odds Ratios, aOR=0.09; 95%CI [0.05-0.17]), malnutrition (aOR=3.90; 95%CI [2.74-5.54]) and low handgrip strength (aOR=2.33; 95%CI [1.44-3.77]; p<0.001) were statistically associated with a low MM status. Conclusion: No association with low MM has been reported regarding low dietary intakes of vitamin D.

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