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Dairy on the menu for fracture-free ageing

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The ageing of the population will see a growing burden of chronic diseases, including fragility fractures. Older adults in aged care homes contribute 30% to the burden of hip fractures yet constitute only 6% of older adults over the age of 65 years. By 2050 it is expected that each year over 20,000 hip fractures will arise from aged care. Anti-fracture interventions targeting this high-risk group would likely reduce the community burden of fractures, but any intervention must be effective, safe, and cost saving. Older adults in aged care homes have inadequate intakes of calcium and protein, risk factors for fractures, so we hypothesised if correcting these inadequacies would reduce risk of fractures. Over the 2-year clustered-randomised trial involving over 7000 older adults, the 30 intervention care homes provided additional dairy foods (milk, yoghurt, and cheese) on the menu, while the 30 control sites continued with their usual menus. The increased dairy intake to 3.5 servings daily in intervention residents was associated with a 33% reduction in fractures, 46% reduction in hip fractures and an 11% in falls. Compliance with the dairy food was maintained for the two years perhaps as these foods are familiar to residents and the dairy foods provided were based on their preferences. All-cause mortality remained unaltered in intervention residents, so relative to mortality risk the intervention was safe. The cost of the additional dairy foods was less than AU\$1 per resident per day. Non-skeletal benefits were also observed. The greatest value of the intervention is its translation into practice. The study provides evidence to support the current Australian Dietary Guideline and the maintenance of all five food groups, particularly how the Guidelines relate to older adults. Moreover, the results directly support the implementation of the food and nutrition related recommendations from the Royal Commission into Aged Care Quality and Safety. The awareness of the value of a food-based approach to healthy ageing in the community is growing. This includes the necessity for aged care organisations to provide nutritious foods to older adults reliant on them for their care. Implementing these food-based strategies may be cost-saving to the aged care and health systems. Over and above these probable cost savings are the direct benefits to the aged care residents.

Reference

1. Iuliano S, Poon S, Robbins J, *et al.* *BMJ* (2021) **375**:n2364.