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Tea and bone health: A review of the literature
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Background – Tea is a good source of fluoride and it is known that fluoride is protective against bone loss. Moreover, tea is a major source of flavonoids, which were shown to have several biological actions, including phytoestrogenic effects.

Objective – This review focuses on human and animal studies examining the association between tea consumption and bone health.

Design – Databases were searched for relevant epidemiological and clinical studies of humans and animal studies.

Outcomes – Epidemiological studies, which investigated tea (mainly black and green) intake and bone mineral density (BMD), have suggested that older people who drank black tea had higher BMD (3 studies) and lower risk of hip fractures (2 studies) than those who did not drink tea. In contrast, two large epidemiological studies of US women found no relationship between tea consumption and the risk of hip or wrist fracture over 4-6 years of follow up; however one of them showed higher tea consumption was associated with higher BMD in postmenopausal women. Many animal studies have been undertaken to evaluate the impact of different tea extracts on bone health, especially osteoporosis induced by ovariectomy. The results showed that tea extracts (mainly black and green) or their polyphenols were effective in preventing bone loss due to ovarian hormone deficiency. Although most of the health benefits of tea have been attributed to the antioxidant and free radical-scavenging activities of polyphenols, tea contains many beneficial elements such as fluoride, potassium, magnesium, zinc and amino acids which may contribute directly or indirectly to the health of the skeletal system.

Conclusion – The published studies suggest that consumption of tea, especially black and green teas have moderately positive effect on BMD, especially in older people.

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Australian food and nutrition policies – world leaders or followers?
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Background – In 2002 the World Health Organization adopted the Global Strategy on Action for Diet, Physical Activity and Health. The European Region of the WHO has been very active in the development of national policy approaches to reflect the Global Strategy. Achievements against the goals of the First Action Plan for Food and Nutrition Policy for the WHO European Region, 2000-2005 have been assessed, and the Second Action Plan will be considered for adoption in September 2007. Strategic priorities have been set out and include food safety, nutrition and sustainable food supply, thus linking lifestyle (eating habits) with both human and environmental health costs. In Australia, action to implement the Global Strategy has been less systematic.

Objective – Assess the food and nutrition policy and program actions of Australian national, state and local level governments against the Global Strategy, using principles consistent with the New Nutrition Science and the framework adopted by the European Region.

Design – Document analysis of key Australian food and nutrition policies and surveys of key government departments, agencies and committees.

Outcomes – At the national level, clearly progress has been achieved in some areas (specific strategies to address childhood obesity), but far less progress is evident in other areas, (consistency between nutrition, food safety and agricultural policies or fiscal policies). Some state level policies are more reflective of the Global Strategy principles, for example Tasmania, but little is reported on their achievements against policy objectives. At the local level, integrated food and nutrition actions have generally been wound back, with local governments in most states reporting less activity in 2007 than they did in 1995, with the exception of Victoria where specific support has been provided to advance local food and nutrition initiatives.

Conclusions – Australian governments have not been held accountable for progress toward public health nutrition goals and actions. Without such public and professional accountability, opportunities to progress public health nutrition agendas may be lost. Recommendations are made on strategies for nutrition professional engagement in food and nutrition policy actions, and implications for professional training and related issues.