

# Nutritional needs for skeletal health change as you age, says new scientific review

October 6 2015

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Whether you're young or old, the right nutrition can make a difference to your bone health and influence your ability to live an independent, mobile, fracture-free life into your more senior years. That's the key message of a new scientific review published today in the journal *Osteoporosis International* by leading bone and nutrition experts, in anticipation of World Osteoporosis Day on October 20.

View the scientific review '[Life-course Approach to Nutrition](#)'.

The review summarizes the latest evidence relating to the nutritional needs of mothers, children and adolescents, adults and seniors, in relation to developing and maintaining a healthy skeleton. Placing particular emphasis on calcium, vitamin D and protein, it shows how adequate nutritional intake of these and other micronutrients can support the primary objectives for good [bone health](#):

- Achieving genetic potential for peak bone mass in children and adolescents
- Avoiding premature bone loss and maintaining a healthy skeleton in adults
- Preventing and treating osteoporosis in seniors

Findings from international studies and trials are summarized as well as current dietary guidelines.

Professor Cyrus Cooper, co-author and chair of the International

Osteoporosis Foundation (IOF) Committee of Scientific Advisors, stated, "This new report shows just how important nutrition is for our bone health throughout life. In fact, nutrition plays a key role in the development of a healthy skeleton even before birth. Healthy maternal diets as well as adequate vitamin D levels are associated with greater bone mass in the off-spring."

The report also underlines how lifestyle trends which lead to poor diet and nutrient deficiencies are a growing cause of concern in people of all ages, and particularly in children. Milk and dairy products comprise the main stay of calcium intake for most children, yet a decline in milk consumption has been observed across the world during the last few decades. Furthermore, vitamin D insufficiency is widespread among youth, which has led to recommendations in several countries for vitamin D supplements to be given to infants and young children.

In adults and seniors, studies have shown that calcium intakes are often considerably below those recommended by national guidelines. Similarly, alarmingly low levels of vitamin D have been found in populations around the world. Lifestyle factors such as excessive alcohol consumption, smoking, and a very high or low body mass index (BMI) also elevate fracture risk for a substantial number of people.

The impact of nutrition on falls and fracture prevention in seniors, who are a growing segment of the population and most affected by osteoporosis, is discussed. The review shows how deficits in protein intake as well as malnutrition, which is sadly common in older people, can negatively affect their bone and muscle health. It also highlights how together with appropriate exercise, adequate nutritional intake in those at high risk of fracture plays an important complementary role to pharmacotherapy.

Professor Bess Dawson Hughes, co-author and professor at the Jean

Mayer USDA Human Nutrition Research Center on Aging at Tufts University in Boston, commented, "The baby boomer generation is ageing and as a result age-related musculoskeletal diseases are imposing an increasingly costly burden on society and health-care systems worldwide. This report shows how we can tap the potential of healthy nutrition within a systematic life-course approach to support osteoporosis and [fracture prevention](#)."

The [scientific review](#) complements a comprehensive report entitled Healthy nutrition, healthy bones: how nutritional factors affect musculoskeletal health throughout life also released today. The report is available freely online in nine languages, together with a wealth of World Osteoporosis Day campaign resources:  
<http://www.worldosteoporosisday.org/resources/2015/thematic-report>

Provided by International Osteoporosis Foundation

Citation: Nutritional needs for skeletal health change as you age, says new scientific review (2015, October 6) retrieved 27 April 2024 from <https://medicalxpress.com/news/2015-10-nutritional-skeletal-health-age-scientific.html>

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