

NATURAL CHOICES ARE INDEED BETTER... ESPECIALLY WHEN PROVEN BY SCIENCE



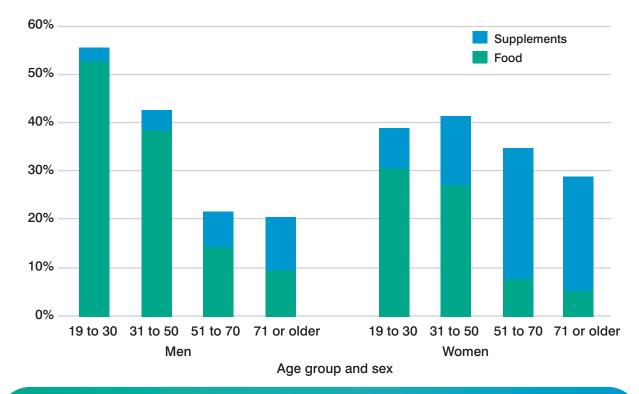




Worldwide, 1 in 3 women over age 50 will experience osteoporotic fractures, as will 1 in 5 men aged over 50.*1

By 2050, the worldwide incidence of hip fracture in men is projected to increase by 310% and 240% in women, compared to rates in 1990.*2

Mortality rates post-hip fracture vary between 25-30% in western populations, they are 2-3 fold higher in populations from the Middle East and Africa region.*3



CALCIUM INTAKE FROM FOOD AND SUPPLEMENT*4

Although calcium intake is indeed a risk factor; Over the age of 50 in Women, majority of Calcium intake is through supplementation. BUT WHY IS OSTEOPOROSIS INCREASING IN THIS AGE GROUP?. Is Supplements the right choice??

Women over 50 will experience osteoporotic fractures. As will **Men**.

Reference:

*1. J Bone Miner Res 7:1005. *2. Osteoporos Int 7:407. *3. Eastern Mediterranean Region. J Clin Densitom 2011 Aug 10.

*4. 2004 Canadian Community Health Survey-Nutrition.





SUPPLEMENTS VS DIETARY CALCIUM

	Milk Calcium	Calcium supplement
Drug Interactions	The Caclium is protected by the Casein phosphopeptides (CPP) and hence interactions are far fewer.	Calcium supplements can interact with sever- al medications: the absorption of calcium from calcium carbonate is reduced by proton pump inhibitors, while calcium supplements may interact with antibiotics, thiazide diuret- ics, digoxin and phenytoin.
Absorption	Active and Passive transport. Casein phosphopeptides (CPP) bind calcium and therefore protect it against precipitation with anions such as phosphates in the small intestine. The net result is an increase of passive calcium absorption in the ileum. ^{*5}	Transcellular pathway (active transport) account for majority of absorbtion.
Vit D deficiency	Can be also absorbed by the influence of lactose in the distal small intestine via the paracellular route. Thus milk can provide calcium with "ensured absorbability" which is generally insensitive to external factors.* ⁶	Impacts Calcium absorption.
Absorbtion inhibitors	No Effect of inhibitors, as calcium is protected in CPP.	Supplemental calcium absorbtion is inhibited by phytates, oxalates, uronic acids or polyphenols in diet.
Calcium utilization	The availability of calcium for bone mineraliza- tion appears to be greater for dairy foods and the effects are longer lasting.*8	Absorbtion of calcium is non inferior to dairy calcium but utilization in bone is less.
Phosphorous content	Increased inorganic phosphate intake leads to decreased urinary calcium and increased calcium retention. calcium and inorganic phosphate in a ratio close to that found in dairy products leads to positive effects on bone health. ^{*9}	Conventional supplements have no phospho- rous.
PPI usage/ achlorhydria	Milk calcium is bound to peptides and proteins making it efficacious.*10	Impaired acid levels impact Calcium absorb- tion.
Meal Effect	Provide an almost complete diet whose consumption provides a "meal effect". This fosters the absorption of calcium and provides a simultaneous intake of phospho- rus that is essential for bone deposition.	Calcium supplements do not contain the additional nutrients—including protein, phosphorous and magnesium.

Reference:

^{*5.} J Am Coll Nutr. 2000;19(2 Suppl):119S–136S. *6. J Am Coll Nutr. 2000 Apr;19(2 Suppl)119S-136S. *7. J Am Coll Nutr. 2000 Apr;19(2 Suppl)119S-136S.
*8. J Am Coll Nutr. 2009 Feb; 28 Suppl 1():82S-90S. *9. Am Coll Nutr. 2013; 32(4):251-63. *10. J Am Coll Nutr. 2000 Apr;19(2 Suppl)119S-136S.





CHANGING MINDSET

Consensus statement from the Belgian Bone Club :

For the non-pharmacological management of osteoporosis, single-nutrient supplements will frequently be inadequate and preference should go to the use of complete supplements or complete foods such as dairy products.^{*11}

European guidance for the diagnosis and management of osteoporosis in postmenopausal women:

Calcium supplementation should only be targeted to those who do not get sufficient calcium from their diet and who are at high risk for osteoporosis and/or fracture.^{*12}

TRIALS

Dairy calcium is non-inferior to calcium from mineral salts, the availability for bone mineralisation appears to be greater for dairy foods and the effects are longer lasting.*¹³

Postmenopausal women, those randomised to dairy calcium had greater improvements in arm, pelvis, total spine and total-body bone mineral density (BMD) than those receiving calcium supplements in one trial.^{*14}

Greater increases in insulin-like growth factor-I (IGF-I), which favours bone formation, have also been reported for dairy compared with calcium supplements.^{*15}

Each Chewable tablet provides:

Milk Calcium 1200 mg (Equivalent to Elemental calcium 300mg) Elemental Phosphorous 150 mg

Cholecalciferol (Vit D3) 400 IU





*11. Osteoporos Int. 2011 Nov; 22(11):2769-88. *12. International Osteoporosis Foundation (IOF).Osteoporos Int. 2013 Jan; 24(1):23-57. *13. J Am Coll Nutr. 2009 Feb; 28 Suppl 1():82S-90S. *14. Am J Clin Nutr. 2007 Sep; 86(3):781-9. *15. Am J Clin Nutr. 2007 Sep; 86(3):781-9.