



# MenaquinGold<sup>®</sup>

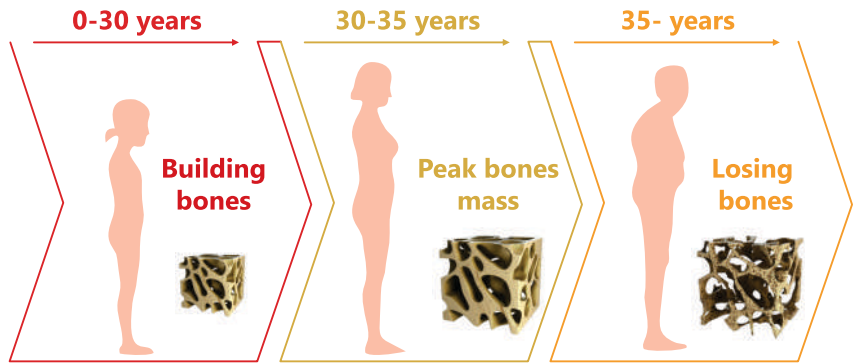
Natural Vitamin K2-7

## MAKING YOUR MILK Super Healthy

**Essence of calcium in milk: Essential for stronger bones in children and adults**



Dairy industry, an ever-growing business with its innovative products such as vitamin-enriched, organic and convenience/snack foods, has generated significant demand for high-standard dairy machinery in recent years.

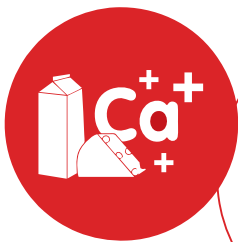


65% of bone is made of calcium, therefore consumption of food rich in calcium (including milk) becomes essential for healthy bones.

Bones grow rapidly during childhood and adolescence, and therefore enough calcium is needed to build strong bones. Bone calcium begins to decrease in young adulthood and gradual loss of the bone density occur with increasing age. Higher the "peak" bone mass one acquires, (peak < 30 years) the more one can lose before developing osteoporosis.

If people are not getting enough calcium in their diet, the body takes calcium from the bones to ensure normal cell function, leading to weakened bones. Therefore, calcium is needed both in childhood and adulthood.

### Calcium inadequacy in humans



**Humans absorb only about 30% of the calcium in foods**

#### Recommended Dietary allowances (RDAs) for calcium

Age	Male	Female	Pregnant	Lactating
0-12 months*	200-260 mg	200-260 mg	-	-
1-8 years	700-1000 mg	700-1000 mg	-	-
9-13 years	1,300 mg	1,300 mg	-	-
14-18 years	1,300 mg	1,300 mg	1,300 mg	1,300 mg
19-50 years	1,000 mg	1,000 mg	1,000 mg	1,000 mg
51-70 years	1,000 mg	1,200 mg	-	-
71+ years	1,200 mg	1,200 mg	-	-

\*Adequate Intake (AI)  
National Institute of Health (NIH), dietary supplement fact sheets

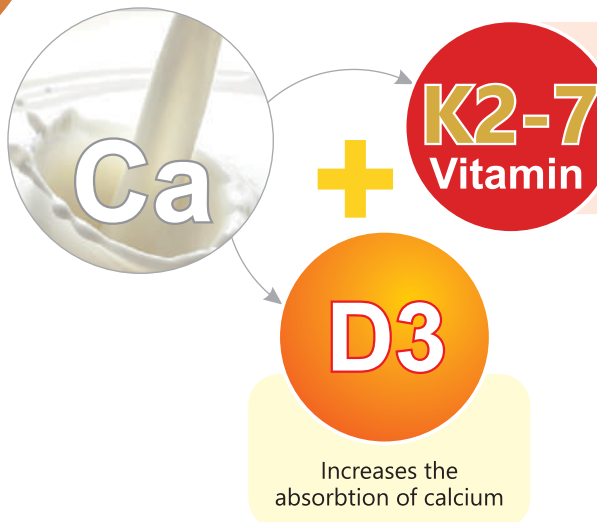
**Absorption of calcium decreases to 15%–20% in adulthood and continues to decrease as people age.**



**When considering total calcium intakes, calcium inadequacy remains a concern for different age groups.**

**Calcium inadequacy exists due to poor absorption of calcium, therefore it is essential to increase the absorption and utilization of calcium**

## Vitamin K2-7 improves the utilization of calcium



Vitamin K2-7 reaches the bones and binds the calcium effectively to the bone thus improves the utilization of calcium

Increases the absorption of calcium

Therefore, fortifying milk with vitamin D3 increases absorption of calcium and vitamin K2-7 improves the utilization of calcium

## Benefits of enriching milk with vitamin K2-7

Better Vitamin K2-7 status ensures



High bone mass



Increase in bone mineral content

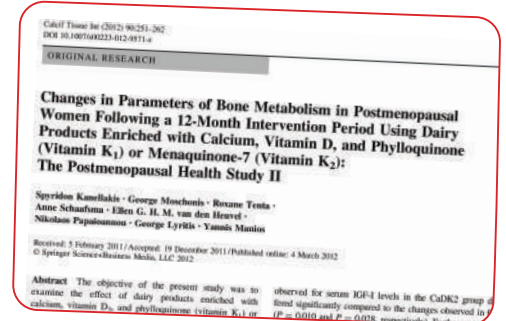


Lower bone turnover



Increase in bone strength

## Clinically proven:



# MenaquinGold<sup>®</sup>

Natural Vitamin K2-7

Our proven expertise for dairy application:



Suitable vitamin K2-7 grade



With standing high temperature



Validated analytical method



Insights during product development

One of the most effective interventions universally recognized for the prevention of hidden malnutrition is food and beverage fortification. Vitamin K2-7 lends itself admirably to this purpose

**Synergia**  
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