How Nutrients Contribute to Bone Health

Alunas:

Geovanna Marina

Edileusa Olimpio

Luana Morais

Resumo Geral

O artigo fala sobre os nutrientes indispensáveis para o esqueleto humano. O cálcio e a vitamina D são responsáveis pela construção de ossos fortes através de alimentos como leite e iogurte. O texto mostra que também há benefícios proporcionados pela vitamina C no desenvolvimento ósseo normal e na formação de colágeno, cartilagem e outras estruturas.

O mesmo fala, também, que a Osteoporose é um problema crescente de saúde pública e orienta a ingestão de laticínios, frutas, vegetais e grãos integrais, que fornecem uma variedade de nutrientes essenciais que influenciam a adição e manutenção óssea ao longo da vida.

It's widely known calcium and vitamin D help build strong bones. Milk and yogurt provide the calcium and vitamin D needed to help slow bone breakdown and increase bone mineral associated But iron is another important nutrient associated with bone health.

According to Tufts University Health & Nutrition Letter, iron helps produce collagen, an integral component of bone. But Tufts warns that iron must be taken with the recommended 800-1200mg of calcium. And calcium absorption is dependent on vitamin D. Osteoporosis, diabetes, heart disease and even cancer may be due to improper iron metabolism in the body.

The International Osteoporosis Foundation predicts those over age 50 **are** at higher risk of bone fracture. Their numbers **will** exceed 300 million worldwide by 2040. According to the U.S. National Osteoporosis Foundation, 10 million Americans currently **have** osteoporosis and another 44 million who **have** low bone mineral density **are** at risk of it. Bone problems **are** also **being diagnosed** in younger people too, especially those who **don't** consume much dairy.

The National Osteoporosis Foundation estimates that more than half of Americans age 50-plus **have** either osteoporosis or low bone mass," cites the National Institutes of Health's National Library of Medicine. "Osteoporosis **is** a **rising** public health concern, given the **aging** population and suboptimal dietary intakes of dairy, fruits, vegetables and whole grains, which **provide** a variety of essential nutrients that influence bone accretion and maintenance across the lifespan."

To combat osteoporosis and bone fractures and to support vitamin D absorption, Banken Champignons (www.bankenchampignons.com) **received** the green light from the European Food Safety Authority to market mushrooms that **contain** vitamin

D. Mushrooms **are** a natural source of ergosterol, which **is converted** into vitamin D by the sun. Banken's mushrooms contain 10mg of vitamin D, equivalent to the **recommended** daily intake. The company's **processing** technology mimics the sun's conversion process in specially **selected** mushrooms that offer consumers a tasty product with health-promoting benefits.

A single serving of the new mushroom variant **can** make up a vitamin D deficiency, explains Jurgen Banken, director of Banken Champignons. "Vitamin D's effects **include boosting** the immune system and **producing** strong bones and healthy teeth. With vitamin D mushrooms, anyone can make up a vitamin D deficiency in a tasty and healthy way," he says.
There are more vitamins than D essential for bone health. "Dried plums **are** not

only a source of dietary fiber, but a good source of potassium and vitamin K," say studies **reported** in the National Library of Medicine. "One serving of roughly four [prunes] provides 2.4g of dietary fiber, 280mg of potassium and 22.8µg of vitamin K."

The two main groups of vitamin K that occur naturally **are** vitamin K1 and K2. Different foods contain different kinds of vitamin K, and the body also gets some vitamin K from the bacteria normally **living** in the large intestine. A **recommended** dietary allowance (RDA) **has** not **been established** for vitamin K, but an adequate intake is **considered** to be 120µg /day for men aged 19+ and 90µg /day for women aged 19+

Vitamin K **is** found in green leafy vegetables like kale, spinach, turnip greens, collards, parsley, romaine and green leaf lettuce; vegetables such as Brussels sprouts, broccoli, cauliflower and cabbage, prunes, kiwi, avocado, blackberries, figs, fish, liver, meat, eggs, and cereals.

Questions:

1. Quais os efeitos da Vitamina D?

R- include boosting the immune system and producing strong bones and healthy teeth.

T- incluem o fortalecimento do sistema imunológico e a produção de ossos fortes e dentes saudáveis.

2. Onde a vitamina K é encontrada?

R- is found in green leafy vegetables like kale, spinach, turnip greens, collards, parsley, romaine and green leaf lettuce; vegetables such as Brussels sprouts, broccoli, cauliflower and cabbage, prunes, kiwi, avocado, blackberries, figs, fish, liver, meat, eggs, and cereals.

T- é encontrada em vegetais de folhas verdes como

Couve ,espinafre, nabo, couve, salsa, alface e alface verde; vegetais como couve de Bruxelas, brócolis, couve-flor e repolho, ameixas, kiwi, abacate, amoras, figos, peixe, fígado, carne,

3. Qual a dieta adequada estabelecida para a Vitamina K?

R- A recommended dietary allowance (RDA) has not been established for vitamin K, but an adequate intake is considered to be 120µg /day for men aged 19+ and 90µg /day for women aged 19+.

T- **Não foi estabelecida uma dieta recomendada (RDA) para a vitamina K, mas considera-se que uma ingestão adequada é de 120 µg / dia para homens com mais de 19 anos e 90 µg / dia para mulheres com mais de 19 anos.**

4. **Qual componente integral do osso que ajuda a produzir colágeno?**
   R- According to Tufts University Health & Nutrition Letter, iron helps produce collagen.

   T- De acordo com a Tufts University Health & Nutrition Letter, o ferro ajuda a produzir colágeno.

5. **Qual a função da Vitamina C?**
   R- vitamin C assists in the formation of collagen and studies show it appears to stimulate the cells that build bone and enhance calcium absorption.

   T- a vitamina C auxilia na formação de colágeno e estudos mostram que parece estimular as células que constroem osso e aumentam a absorção de cálcio.

Legendas:

Presente simples: Vermelho
Passado simples: Azul
Presente contínuo: Laranja
Presente perfeito: Roxo (has been established)

MODAIS: VERDES
Can: Capacidade
May: Possibilidade
Will: Futuro
Must: Obrigação