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Nutrition Guide: Osteoporosis

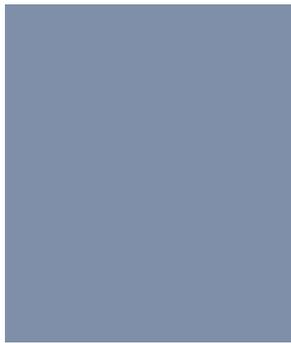
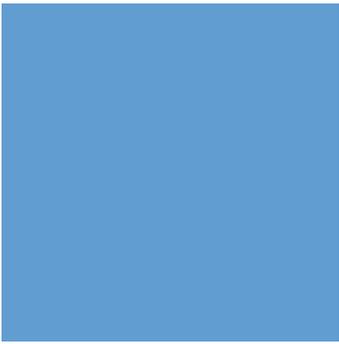


VITAMINS
ACADEMY

by POWER HEALTH

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Ways to support your bone health
through a balanced diet.

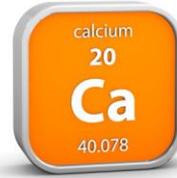


Osteoporosis

A disease affecting your bones

Osteoporosis is known as the condition which affects bone health, and is presented as loss of bone mass, or inability of the skeletal tissue to reform. People above the age of 40, and especially menopausal women, are mostly affected. Recent data from Greece, show that 1 out of 3 women will suffer from osteoporosis making the need for prevention and treatment urgent. One of the main side effects of osteoporosis is the increased risk for bone fractures, mainly in the hip, spinal cord and the wrist. Of course, the subsequent pain and compromised quality of life cannot be ignored.

Given the fact that 2 out of 3 spinal cord fractures go undiagnosed and do not receive the appropriate medical care, it is necessary for the diet and the remaining daily habits to support as much as possible bone health. The main goals are the prevention of osteoporosis and symptom relief.



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Dietary Nutrients

Which are the most important for your bones?

1. **Calcium:** the most important mineral for bone structure and health
2. **Vitamin D:** necessary for calcium absorption
3. **Proteins:** support bone structure
4. **Fruits and vegetables:** good source of potassium which increases calcium stores in bones
5. **Salt:** to support skeletal health a diet should be low in salt, as excess amounts of this dietary component will remove calcium from the bones

What are your needs?

The following table shows how daily calcium and vitamin D needs change throughout the lifecycle. As you can observe women above the age of 50 and men above 70, are mostly in need of these nutrients in order to overcome the natural aging process.

As published by the Institute of Medicine, USA. In Europe the Reference Daily Intake is suggested to be 800mg and 5µg (200IU) for calcium and vitamin D respectively.

Age	Calcium	Vitamin D
19- 50	1.000mg	15µg
51- 70	1.000mg (men) 1.200mg (women)	20µg
>70	1.200mg	20µg





Enrich your diet!

What should your daily dietary plan include?



	Food	Portion Size	Amount
Dairy products			
The richest sources of calcium. Remember that milk is double yummy, combining calcium with vitamin D.	Milk	1 cup (250mL)	300mg calcium, 100IU vitamin D
	Low fat milk, 1.5%	1 cup (250mL)	400mg calcium, 100IU vitamin D
	Soy milk	1 cup (250mL)	300mg calcium, 100IU vitamin D
	Low fat yogurt, 2%	1 cup (250mL)	300mg calcium, 100IU vitamin D
	Yellow cheese	1 cup (200g)	450mg calcium
	White cheese	1 cup (30g)	300mg calcium
	Cottage cheese	1 cup (30g)	300mg calcium
Ice cream		1 matchbox (30g)	120mg calcium
		1 cup (230g)	150mg calcium
		1 scoop (100g)	6mg calcium
Proteins			
Necessary for continuous bone reforming, while some proteins are also considered a source of vitamin D.	Egg	1 egg	25 IU vitamin D
	Sardines, eaten with bones	1 inside of palm (90g)	300mg calcium, 350 IU vitamin D
	Tuna	1 can	120 IU vitamin D
	Beans	½ cup	8mg calcium
Fruits, vegetables & nuts			
Some plant foods are considered a good source of calcium, while most of them contain important amounts of potassium	Broccoli	1 cup, boiled	112mg
	Leafy green vegetables	1 cup, cooked	200mg
	Figs	4 medium	80mg
	Almonds	23 kernels	80mg
	Tahini	1 teaspoon	60mg

The values are based on the USDA Nutrient Database for Standard Reference, and on the Greek Food Composition Tables by Kafatos and Chasapidou, 2001.



Frequently Asked Questions



When is the best time of the year to consume foods rich in calcium?

Remember that your body better absorbs calcium if you consume it in small servings of **300 - 400mg per meal**. This practically means that you will need to incorporate approximately one good source of calcium at each of your meals or snacks.



What to do if you do not enjoy milk?

If you do not enjoy drinking plain milk, which is considered the optimal source of both calcium and vitamin D, you should try adding milk in creamy soups or blend it with fruits in a smoothie. Alternatively yogurt and cheese are a good source of calcium but not vitamin D.

Are there any foods you should avoid to maintain skeletal health?

While some foods promote bone health, others impair calcium absorption. **For this reason avoid consumption at the same meal of good calcium sources, along with large quantities of the following foods:**

- whole grains
- coffee
- chocolate
- some leafy green vegetables, such as spinach
- salt

Besides table salt, hidden sources of this food component are: **bread, processed meats, canned and other processed foods.**



Dietary supplements: When should they become an option?

If after reading the information provided in the guide above you realize that your daily diet falls short in calcium sources, then the consumption of a calcium and vitamin D supplement might be an option to consider. If you are a vegetarian, if you have lactose intolerance, if you are diagnosed with osteopenia (early stage of osteoporosis) or osteoporosis and you are receiving an appropriate drug prescription then you will also be benefited by a calcium and vitamin D supplement.

Calcium:

Necessary for bone mineral density.



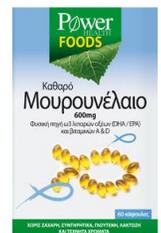
Vitamin D3:

Necessary for calcium absorption.



Cod Liver Oil:

The richest natural source of vitamin D, supporting bone and general health.



Isoflavones:

Soy component with balances out hormonal changes during menopause, and prevents bone resorption.





Meeting the recommendations for calcium and vitamin D during infancy and childhood is necessary to achieve peak bone mass, and prevent fractures and osteoporosis later in life. In all cases prevention is the best treatment, thus if you are above 50 years of age promote your skeletal health by adopting these three principles in your daily life: **calcium, nutrition and physical activity.**

