



Vitamin D and Your Bones

Vitamin D is important throughout life to help your body use calcium to build and maintain strong bones. It also increases muscle strength to help prevent falls and broken bones in older adults.

Recommended daily value of vitamin D for most adults is 600 to 800 IU or 15 to 20 micrograms; however, this may vary based on individual vitamin D levels.

There are three ways to get vitamin D: Sunlight, food and supplements. The body makes vitamin D upon direct skin exposure to sunlight.

Foods rich in Vitamin D

Sources of vitamin D include canned salmon, Atlantic Mackerel, canned tuna in water, egg and shitake mushrooms. Foods fortified with vitamin D include oatmeal, milk, soy milk, almond milk, cereals, tofu and yogurt. Speak to your health care provider to find out how much vitamin D you need and the best supplement for you. Retinol (a form of vitamin A found in foods of animal origin and in some supplements) may have a negative effect on the skeleton. However, beta-carotene and other carotenoids (forms of vitamin A found in red and orange fruits; dark green vegetables and in some supplements) appear to be safe for the skeleton.

Vitamin D and Covid-19:

Multiple studies across the world since the onset of covid-19 have been conducted to explore the relationship between low vitamin D levels and severity of the disease. The studies have shown mixed results, some in favor of and some against using high doses of vitamin D for treating covid 19. However, it is highly recommended that daily requirement of vitamin D is met each day from a combination of food sources and supplements. Populations at risk for vitamin D deficiency include individuals with inadequate nutrition, homebound individuals who do not have adequate exposure to sunlight and dark-skinned individuals due to limited absorption of vitamin D from sunlight. Diseases such as crohn's disease, celiac disease, liver and kidney disease can affect absorption leading to vitamin D deficiency.

Building immunity

Regular physical activity and a nutrient-rich diet are vital for a good immune system and strong bones. A combination of strengthening, stamina building and balance exercises are recommended for bone health. A

healthy plate is one in which a half is filled with variety of deeply colored vegetables, a quarter with whole grains, another quarter with lean protein and a calcium rich beverage to go along with it.

Why is calcium so important?

Calcium plays a critical role in supporting the body's vital functions such as controlling the blood pressure and maintaining a regular heartrate. Ninety nine per cent of the body's calcium is stored in bones and teeth that makes up the 'bone bank'. Calcium is "deposited" and "withdrawn" from this bank every day. The daily requirement of calcium is 1000 to 1200 milligrams for adults. If your daily diet is low in calcium, it is "withdrawn" from the bone bank to achieve normal blood calcium levels.

How can I get enough calcium?

The most efficient way to get calcium is from the foods you eat. Your body absorbs calcium best in small amounts (600 mg or less at one time). Spread out the calcium you eat each day by choosing a calcium-rich food at each meal or snack.

Calcium rich foods and the dairy dilemma:

Dairy foods including milk, cheese and yogurt are excellent sources of calcium. However, a large proportion of world's population cannot tolerate lactose, the milk sugar in dairy products. Non-dairy sources include dark green leafy vegetables like bok- choy, broccoli, collard greens, dandelion-greens, kale, mustard greens and turnip greens;

almonds, calcium-fortified juices, cereals, breads, rice milk, almond/soy milk, canned fish (sardines, salmon with bones), soybeans, soy products (tofu made with calcium sulfate, soy yogurt, tempeh) and all varieties of beans.



Featured recipe- 'Sassy Garlic Dip'

Ingredients- Soft tofu (8oz), lemon juice (2tbsp), minced garlic (2 cloves), cooked white kidney beans (1/2 cup), salt (1/4tsp) and chopped scallion (1).

Procedure- Blend all ingredients in food processor, refrigerate and serve cold or at room temperature. This recipe makes one and a half cups with a serving size of two tablespoons.

Calories	24
Calcium	37mg
Protein	2g
Fat	1g
Saturated fat	0.1g
Carbohydrates	3g
Fiber	1g
Sodium	52mg

For more information on bone health, visit www.nysopep.org, email info@nysopep.org, or call the NYSOPEP resource center at Helen Hayes Hospital, West Haverstraw, NY at 845-786-4772. (New York State Department of Health).