January 2, 2015

Calcium and Vitamin D Recommendations

Adequate calcium to help ensure good bone health can be obtained through diet, supplements, or a combination of both. It is advised not to take extra calcium than what is recommended, as it has been shown that this can lead to an increased risk for kidney stones. Assuming there are no health reasons you are aware of through your doctor/provider, the following are guidelines for the amount of daily calcium and vitamin D you need:[1]

Calcium, women: Age 50 and younger—1000mg; Age 51+—1200mg (diet + supplementation)
Calcium, men: Age 70 and younger—1000mg; Age 71+—1200mg (diet + supplementation)

Vitamin D: Recommendations vary widely by source, from taking none to as much as 5,000 I.U. daily (occasionally more). Discuss this with your physician/provider.[2] (See chart on back)

It is possible to obtain the calcium you need for good health through diet alone. When calculating the amount of calcium in your diet, allow for the following:

General Diet	300mg	Rhubarb (1 cup)	350mg
8 ounces Milk	300mg	Salmon (3-4 oz.)	225mg
1 ounce Cheese	200mg	Tofu (3oz.)	150mg
1 yogurt (1 cup)	400mg	Cottage Cheese (1 cup)	150mg

Merely add up your average daily calcium intake and subtract from the above recommended requirements. Provide the rest as by supplement. There are also other sources that can be calculated by reading the label, but the preceding are the major sources of calcium in the typical American diet. Another way to assure enough calcium for one day and some Vitamin D is to enjoy the following breakfast:

1 cup Total brand cereal
8 ounces of milk
1 glass calcium fortified orange juice

Vitamin D is the "sunshine vitamin", but, unfortunately, as we age, our skin is less efficient at producing Vitamin D from sunshine than when we were younger. Hence, Vitamin D deficiency is extremely common in adults, even in some who are consider "young", who live as far north as Michigan. It is so common that checking Vitamin D levels largely only confirms what we already know—we need to supplement Vitamin D (this vitamin is not found in any foods naturally).

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[1] It should be noted that according to the U.S. Preventive Services Task Force (USPSTF), evidence is insufficient to assess the balance of the benefits and harms of daily supplementation with greater than 400 IU of vitamin D_3 and greater than 1,000 mg of calcium for the primary prevention of fractures in noninstitutionalized, postmenopausal women. The USPSTF recommends screening for osteoporosis in women 65 years or older and in younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors.

[2] The USPSTF recommends vitamin D supplementation to prevent falls in noninstitutionalized adults 65 years or older who are at increased risk of falls because of a history of recent falls or vitamin D deficiency.

Family Medicine of Michigan

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Desired goal for Vitamin D blood levels: 40-100 ng/mL

Following chart provides the approximate amount of Vitamin D3 needed to be taken as a supplement on a daily basis to reach a desired *goal,* given the starting *blood level* is known. The amount of Vitamin D3 suggested is based on a weight of 150 lbs.

Blood Level / Goal	0-10ng/mL	10-20ng/mL	20-30ng/mL	30-40ng/mL	40-50ng/mL
20ng/mL	1,000 IU	500 IU			
30ng/mL	2,200 IU	1,700 IU	600 IU		
40ng/mL	3,600 IU	3,200 IU	2,000 IU	800 IU	
50ng/mL	5,300 IU	4,900 IU	3,700 IU	2,500 IU	900 IU
60ng/mL	7,400 IU	7,000 IU	5,800 IU	4,600 IU	3,000 IU
70ng/mL	10,100 IU	9,700 IU	8,600 IU	7,300 IU	5,700 IU

Suggested resources for further information:

- Vitamin D Council (vitamindcouncil.org)
- National Institutes of Health (nih.gov)—see *Calcium and Vitamin D: Important at Every Age*
- National Osteoporosis Foundation (nof.org)