NYSOPEP
New York State Osteoporosis Prevention and Education Program

nysopep.org

NEW YORK STATE | Department of Health

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 Vitamin D Intakes

Age	Vitamin D in IU (International Units) and mcg (micrograms)
Birth to 12 months	400 IU or 10mcg
1 to 70 years	600IU or 15mcg
70years and older	800 IU or 20mcg

There are three ways to get vitamin D: *Sunlight, food and supplements.*

Vitamin D and the Sun

The body makes vitamin D when skin is exposed to ultraviolet light (UVB rays) from the sun. During the winter months in New York, the UVB rays are not adequate to make enough vitamin D. In addition, our body's ability to make vitamin D from sun exposure reduces with age. Using sunscreen also blocks the absorption of sunlight from the skin. Since it is important to protect bare skin from exposure to sunlight by using sunscreen, getting vitamin D from foods and supplements is highly recommended.

Nutrition Information about Vitamin D

There is limited but growing knowledge available regarding vitamin D content of foods. The **USDA National Nutrient Database** (www.nal.usda.gov) is a highly reliable resource for more information.

Reading Food Labels to Find Vitamin D Content

It is very important to read food labels correctly. Vitamin D content is listed in micrograms (mcg) per serving on the food label. Individuals up to age 70 require 15mcg and those 70years and older require 20mcg of vitamin D every day. Below is an example of vitamin D listed in micrograms (mcg) and calcium in milligrams (mg) on a food label.

Nutrition Facts/Datos de Nutrición

8 servings per container/8 raciones por envase

Serving size/Tamaño por ración **2/3 cup/2/3 taza (55g)**

Amount per serving/Cantidad por ración

Calories/Calorías **230**

	% Daily Value*/Valor Diario*
Total Fat/Grasa Total 8g	**10%**
Saturated Fat/Grasa Saturada 1g	**5%**
Trans Fat/Grasa *Trans* 0g	
Cholesterol/Colesterol 0mg	**0%**
Sodium/Sodio 160mg	**7%**
Total Carbohydrate/Carbohidrato Total 37g	**13%**
Dietary Fiber/Fibra Dietética 4g	**14%**
Total Sugars/Azúcares Totales 12g	
Includes 10g Added Sugars/Incluye 10g azúcares añadidos	**20%**
Protein/Proteínas 3g	
Vitamin D/Vitamina D 2mcg	10%
Calcium/Calcio 260mg	20%
Iron/Hierro 8mg	45%
Potassium/Potasio 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

* El % Valor Diario (VD) le indica cuánto un nutriente en una porción de alimentos contribuye a una dieta diaria. 2,000 calorías al día se utiliza para asesoramiento de nutrición general.

Supplemental Sources

It is difficult for many individuals to get enough vitamin D from food. Often children and adults need to take vitamin D as a supplement, including all breast-fed infants and infants taking less than 1 quart of formula a day. Vitamin D supplements are available as D2 and D3 and they both help protect bones. Vitamin D2, also called as ergocalciferol, comes from vegetarian sources. Vitamin D3, also as called cholecalciferol, comes from animal sources.

Supplements Containing Vitamin D

• Multivitamins

• Calcium with vitamin D

• Vitamin D alone

Vitamin D is available in various doses over the counter/without a prescription or as a prescription. Speak to your health care provider to find out how much vitamin D you need and the best source for you.

Vitamin A and your bones:

• **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 darkly colored red, orange and green fruits and vegetables, as well as in some supplements) appear to be safe for the skeleton.

• It is wise to avoid foods high in retinol content, including cod liver oil and liver, even though they are sources of vitamin D. You can easily get enough vitamin A by eating several daily servings of fruits and vegetables high in carotenoids such as carrots, cantaloupe, sweet potato and spinach.

• By reading the labels of supplements, you can find out the content and source of vitamin A. Its' recommended to avoid a combination vitamin D and A supplements and to choose multivitamins that contain less than 80% of the Daily Value (DV) of vitamin A from retinol sources. Sources of retinol are mostly listed on the supplement label as provitamin A, retinyl palmitate, vitamin A palmitate, retinyl acetate and vitamin A acetate.

For more information about 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