

Creating Health & Nutrition Fact Sheets



Nutrition Information

Vitamin D is a fat-soluble vitamin needed for absorbing calcium and building strong bones. It may also benefit muscles, gums, and the immune system.

Except for fish oils, very few foods contain much of this vitamin. Milk is fortified with vitamin D to prevent rickets in children. Nonfat, low-fat,

Vitamin D

and whole milk have equal amounts of the vitamin. Vitamin D can be made by the body from sunlight on unprotected skin for 15 minutes daily. In northern areas of the United States, the sun is only strong enough to do this from March through October.

Some groups that may need supplementation of vitamin D:

- infants who are breastfed
- people with a milk allergy

- people who rarely drink milk (lactose intolerant, dislike milk)
- people with limited sun exposure
- people with dark skin
- people with inflammatory bowel diseases or malabsorption
- people who are obese (BMI above 30)
- older adults

Among supplements, vitamin D₃ is more potent than vitamin D₂. More than 50 percent of women are not getting the suggested amounts of vitamin D. Recent research is finding many health benefits related to adequate intake of this vitamin. It is important to obtain the recommended amounts. Use foods that are good sources, sunlight exposure, and, if

Tip

In the warmer months, taking a 20-minute walk in the sun gives you your daily dose of needed vitamin D.

needed, supplements to obtain these amounts.

Caution: Excessive amounts of vitamin D, as a fat-soluble vitamin, are stored in the body. Above a specific level, they could be toxic. Consider your total intake, including food sources and multivitamins. The new vitamin D safe upper limit is 4,000 IUs. If prone to kidney stones, check with your doctor before exceeding 1,000 IUs. In terms of blood values, 30–50 nmol/L of serum 25(OH)D are generally considered adequate for bone and health in healthy people.

Good Sources of Vitamin D

Food	International Units (IU) per serving
Salmon, 3 oz	477
Tuna canned in water, 3 oz	68
Milk fortified with vitamin D, 1 cup	124
Orange juice fortified with calcium and vitamin D, 1 cup	100
Yogurt fortified with vitamin D, 6 oz	80

PENNSTATE



Cooperative Extension
College of Agricultural Sciences

Shopping Tips

Check the chart on the first page to select foods that are good sources of vitamin D.

Tips Affecting Different Age Groups

Per the Food and Nutrition Board's Institute of Medicine, the recommended dietary allowances (RDAs) for vitamin D (males and females) are as follows:

Ages 1–70:

600 IU (15 micrograms)

Above age 70:

800 IU (20 micrograms)

Prepared by Lynn James, Penn State Extension educator

Sources: National Institutes of Health Office of Dietary Supplements, "Vitamin D Fact Sheet for Health Professionals," ods.od.nih.gov/factsheets/VitaminD-HealthProfessional (accessed 2/6/2014), and USDA-ARS Beltsville Human Nutrition Research Center Nutrient Data Laboratory, www.ars.usda.gov/main/site_main.htm?modecode=12-35-45-00 (accessed 2/7/2014).

extension.psu.edu

Penn State College of Agricultural Sciences research and extension programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

This publication is available in alternative media on request.

Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

Produced by Ag Communications and Marketing

© The Pennsylvania State University 2014

Code UK148 2/14pod

Examine Your Choices

Food	Source	What I buy	What I plan to buy
<i>Example:</i>			
Protein group	Fatty fish—vitamin D	Pork	Salmon
My Goal:			

Salmon Loaf

Serving size: Makes 8 servings

INGREDIENTS

- 2 cups soft bread crumbs
- 1 Tablespoon lemon juice
- 1 onion, chopped
- dash of pepper
- 1 Tablespoon melted vitamin D fortified margarine
- 1 Tablespoon minced parsley or 1 tsp dried
- ¼ cup minced celery
- 2 eggs
- ½ to 1 cup low-fat milk
- ½ teaspoon Worcestershire sauce
- 1 can (15½ oz) salmon

DIRECTIONS

Preheat oven to 325°F. Drain salmon and remove skin if desired. Mash bones with meat and mix with rest of ingredients. Add milk so that mixture is moist but not runny. Place in lightly oiled 9-by-5-inch loaf pan. Bake for 45 minutes.

NUTRIENT INFORMATION

One serving: 158 calories, 14g protein, 9 g carbohydrate, 1 g fiber, 8 g fat, 2 g saturated fat, 149 mg calcium, 360 mg sodium, 14 IU vitamin D, 146 IU vitamin A.

Source: *Calcium-Rich Eating*, Lesson 3, by J. Lynne Brown, Penn State Extension.