

Bone Health and Calcium

Why is calcium important?

Calcium is an important component of bone health. Calcium helps you build stronger bones, teeth, and helps maintain your bone mass. Low bone mineral density can lead to an increased risk of fractures and an impaired ability to perform in your sports activities. During your childhood and adolescent years, the chance to improve bone mineral density is much greater than during your adult years. Peak bone mass is achieved about the age of 20 years old and begins declining about age 30. Therefore, invest in your bone health and fracture prevention early!

Why is vitamin D important?

Vitamin D is an important component to help your body absorb the calcium you consume. Vitamin D can be found in foods such as fish, fortified orange juice, cheese, yogurt, and eggs. Vitamin D is also made naturally with exposure to sunlight. Approximately 15-20 minutes of sun exposure (without sunscreen) daily provides your RDA for vitamin D. Sunscreen is still recommended by the American Academy of Pediatrics for skin protection, and beyond this window of time sunscreen should be applied for proper skin protection. If you have questions or concerns about sun exposure, contact your primary care physician or sports medicine physician.

How much calcium and vitamin D should I consume?

The RDA is your Recommended Daily Allowance. Below is a chart of your specific RDA based on age:

Age	Calcium RDA	Vitamin D RDA
4-8 years	1,000 mg	600 IU
9-13 years	1,300 mg	600 IU
14-18 years	1,300 mg	600 IU
19-50 years	1,000 mg	600 IU

Reference: <http://fnic.nal.usda.gov/dietary-guidance/dietary-reference-intakes/dri-tables>

What are my risks if I don't consume enough calcium?

For young athletes, insufficient calcium intake can lead to low bone mineral density, predisposing them to conditions such as osteopenia or osteoporosis. This increases the risk of broken bones and potentially will impact sports performance. Specifically for female athletes, there is concern for developing the Female Athlete Triad. The Triad is a serious health problem that involves disordered eating, low bone mass, and amenorrhea (cessation of the menstrual cycle). It is important for all young athletes to make sure they are eating a well-balanced diet to properly fuel for sports competition and to maintain adequate bone mineral density. For more information, visit www.femaleathletetriad.org.

What foods are good sources of calcium?

Food source of calcium	Amount of calcium per serving (mg)
Dairy sources	
Nonfat milk, 1 cup	300
Greek yogurt, 0% fat, 6 oz	200
Cheddar cheese, 1 oz	200
String cheese, 1 stick	200
Cottage cheese, 1 cup	160
Non-Dairy Sources	
Total® cereal, ½ cup	500
Soy milk, calcium fortified, 1 cup	450
Orange juice, calcium fortified, 8 oz	350
Soybeans, 1 cup cooked	300
Tofu, regular ½ cup	250
Canned salmon, 3 oz	180
Almonds, roasted, 2 oz	165
Spinach, cooked, ½ cup	120
Figs, 4 pieces, ready to eat	70
Broccoli, ½ cup	50
Black beans, ½ cup	35

The table above is to be used as a general reference point. Please refer to food label for most accurate calcium content. Also refer to the following website for more calcium rich food items <http://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/>.

Calcium supplement	Amount of calcium per pill (mg)
Oscal Plus D ®	600
Caltrate®	600
Citrical + D®	600
Viactiv®	500
Nature Made®	500
Nature Made Petites®	200

Information referenced from the manufacture's website of each calcium supplement listed above.

• **Label Reading**

- Look at the percent daily value for calcium
- The daily value for calcium is based on 1000mg
- Example:
 - 30% is of 1,000mg is 300mg
- Good sources of calcium will be 20% or greater
- Low sources of calcium will be 5% or lower

Nutrition Facts	
Serving Size 1 cup (236ml)	
Servings Per Container 1	
Amount Per Serving	
Calories 80	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol Less than 5mg	0%
Sodium 120mg	5%
Total Carbohydrate 11g	4%
Dietary Fiber 0g	0%
Sugars 11g	
Protein 9g	17%
Vitamin A 10%	Vitamin C 4%
Calcium 30%	Iron 0% • Vitamin D 25%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

• **How much calcium are you getting?**

- Amount of calcium from dairy sources _____
- Amount of calcium from non-dairy sources _____
- Amount of calcium from supplements _____
- **Total** _____

Reference your 'After Visit Summary' from this visit to make sure you meet your calcium intake goals each day!