

Calcium & Phosphorous Content of Common Vegetables & Fruits

(Adapted from “Food Values of Portions Commonly Used” by Bowes & Church, revised by Jean Pennington, 15th Ed.)

This paper lists calcium & phosphorous content of a 1 cup portion of each food item. Proper health and bone development depend not only on adequate amounts of calcium, but also on a proper calcium to phosphorous ratio; ideally this should be between 1.5 : 1 and 2:1. This means that you need to have 1 ½ to 2 times as much calcium as phosphorous in the diet to prevent bone disease and other problems.

Feeding a variety of foods helps minimize nutrient imbalances or deficiencies. In general, leafy greens are the best food items for most plant-eating animals. Items from the “Ideal Ratio” list can be fed liberally, along with items from the “High Ratio” list (**preferred foods are BOLDED**). Items in the “Moderate Ratio” list can be used moderately as add-on treats; minimize items in the “Poor Ca/P Ratio” list, especially items in the lower ½ of that list; these are very calcium-poor foods.

Table 1: FOOD ITEMS WITH IDEAL Ca:P RATIOS (use liberally)

FOOD TYPE (1 cup)	CALCIUM	PHOSPHOROUS	Ca:P Ratio
Mustard Greens	104 mg	58 mg	1.8 : 1
Leeks	60 mg	36 mg	1.7 : 1
Watercress	40 mg	20 mg	2 : 1
Chard	102 mg	58 mg	1.7 : 1
Endive	23 mg	14 mg	1.6 : 1
Green Leaf Lettuce	28 mg	14 mg	2 : 1
Raspberries	27 mg	15 mg	1.8 : 1
Blackberries	46 mg	30 mg	1.5 : 1
Spinach*	56 mg	28 mg	2 : 1

*The calcium in spinach mostly exists as calcium oxalate, which is indigestible; only ~1/3 of spinach’s calcium is available, making it a weaker calcium source than most leafy greens. It should be used as only a minor portion of the diet.

Table 2: FOOD ITEMS WITH HIGH Ca:P RATIOS (use liberally)

FOOD TYPE (1 cup)	CALCIUM	PHOSPHOROUS	Ca:P Ratio
Kale	98 mg	36 mg	2.7 : 1
Beet Greens	164 mg	58 mg	2.8 : 1
Chinese Cabbage	74 mg	26 mg	2.8 : 1
Dandelion Greens	104 mg	36 mg	2.9 : 1
Parsley	78 mg	24 mg	3.2 : 1
Turnip Greens	106 mg	24 mg	4.4 : 1
Papaya	72 mg	16 mg	4.5 : 1
Yellow Wax Beans	174 mg	34 mg	5 : 1
Collards	148 mg	19 mg	7.8 : 1

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Table 3: FOOD ITEMS WITH MODERATE Ca:P RATIOS (can use moderately)

FOOD TYPE (1 cup)	CALCIUM	PHOSPHOROUS	Ca:P Ratio
Grapes	13 mg	9 mg	1.4 : 1
Cabbage	46 mg	34 mg	1.3 : 1
Turnip	36 mg	30 mg	1.2 : 1
Radish	24 mg	20 mg	1.2 : 1
Green Beans	58 mg	48 mg	1.2 : 1
Okra	100 mg	90 mg	1.1 : 1
Eggplant	30 mg	26 mg	1.1 : 1
Apple	10 mg	10 mg	1 : 1
Mango	21 mg	22 mg	1 : 1
Lettuce (iceberg)	16 mg	16 mg	1 : 1
Pineapple	11 mg	11 mg	1 : 1

Table 4: FOOD ITEMS WITH POOR Ca:P RATIOS (use very sparingly)

FOOD TYPE (1 cup)	CALCIUM	PHOSPHOROUS	Ca:P Ratio
Pears	15 mg	18 mg	1 : 1.2
Rutabaga	72 mg	84 mg	1 : 1.2
Cherries	10 mg	13 mg	1 : 1.3
Cucumber	14 mg	18 mg	1 : 1.3
Strawberries	42 mg	56 mg	1 : 1.3
Guava	18 mg	23 mg	1 : 1.3
Apricot	15 mg	21 mg	1 : 1.4
Beets	18 mg	26 mg	1 : 1.4
Cantaloupe	17 mg	27 mg	1 : 1.6
Blueberries	18 mg	30 mg	1 : 1.6
Cauliflower	28 mg	46 mg	1 : 1.6
Brussels Sprouts	56 mg	88 mg	1 : 1.6
Squash (summer, all var.)	26 mg	46 mg	1 : 1.7
Parsnips	58 mg	108 mg	1 : 1.9
Sweet Potato	64 mg	124 mg	1 : 1.9
Pumpkin	36 mg	74 mg	1 : 2.1
Peaches	5 mg	11 mg	1 : 2.2
Carrot	28 mg	64 mg	1 : 2.3
Asparagus	44 mg	108 mg	1 : 2.5
Banana	7 mg	22 mg	1 : 3.1
Plums	4 mg	14 mg	1 : 3.5
Yams	18 mg	66 mg	1 : 3.6
Tomato	16 mg	58 mg	1 : 3.6
Peas	38 mg	168 mg	1 : 4.4
Corn	10 mg	120 mg	1 : 12
Mushroom	4 mg	72 mg	1 : 18