

ESTIMATING CALORIE VALUE OF FOODS

From WEIGHT CONTROL – U.S. Edition by Vincent Antonetti, Ph.D.
© 2012 by NoPaperPress. All rights reserved.

In order to stay on a diet you must be able to estimate the calorie value of foods as well as portion sizes. The Nutrition Facts label on food packages, listing nutrient content, makes it possible to calculate the number of calories in a serving if you know that there are roughly:

	Calories <u>per gram</u>	Calories <u>per ounce</u>
Carbohydrates	4	110
Protein	4	110
Alcohol	7	200
Fat	9	260

Example: Determine the calories in a cup (8 oz.) of whole milk. The label on a container of whole milk indicates that a cup has 11 grams of carbohydrate, 8 grams of protein and 9 grams of fat. Therefore, the total calories in a cup of whole milk can be determined as follows:

$$\begin{array}{r} 11 \text{ grams of carbohydrates} \times 4 \text{ Cal per gram} = 44 \\ 8 \text{ grams of protein} \times 4 \text{ Cal per gram} = 32 \\ 9 \text{ grams of fat} \times 9 \text{ Cal per gram} = \underline{81} \\ \hline 157 \text{ Calories} \end{array}$$

A sense of the caloric value (per ounce) of some basic foods can be obtained from Table 1. The extremes of the chart are represented by water the lowest, at zero Calories, and fat (lard) the highest at about 260 Calories per ounce. Sugar (a

pure carbohydrate) is near the middle of the ranking at 110 Calories per ounce. Protein is also approximately 110 Calories per ounce but there is no pure protein food to rank. (Note, most of the calorie values in Table 1 are the average of many varieties in a particular category.)

Water	0	Pasta	36
Coffee or Tea	1	Fish	42
Vegetables	7	Eggs	47
Milk (fat free)	10	Poultry	54
Soft drink	12	Whiskey	71
Beer	13	Bread	72
Fruit	15	Meat	97
Milk (whole)	18	Cake	100
Potato	23	Sugar	110
Corn	25	Chocolate	151
Wine	27	Nuts	175
Rice	33	Vegetable oil	253
Beans	34	Lard	260

Table 1: Calorie Rank (per ounce) of Basic Foods

Table 2 (on the next page) is an expanded version of Table 1 that includes some commonly encountered foods.

If you appreciate that **most foods are some combination of water, carbohydrate, protein, fat and fiber**, you can better understand why a particular food has the caloric value and rank shown in Table 2. For example, watermelon is almost entirely water, with some fiber (zero calories) and carbohydrate, with no protein or fat, and consequently has a very low 7 Calories per ounce value. A grape is again mostly water with some fiber and carbohydrate and according to the chart has only 19 Calories per ounce, but a raisin (a dried grape) is almost entirely carbohydrate and fiber with little water and thus has a value of 83 Calories per ounce – closer to the 110 Calories per ounce of a pure carbohydrate. When a food is not listed in the chart, common sense can often be used

Water	0	Peas	20	Liverwurst	79
Coffee or Tea	1	Yogurt (whole)	21	Hamburger	82
Vinegar	3	Potato (boiled)	23	Tuna (in oil)	82
Lettuce	4	Clams (raw)	25	Raisins	83
Celery	5	Banana	25	Bologna	87
Asparagus	6	Corn	25	Wheat Flakes	89
Tomato	7	Wine	27	Cake- average	100
Spinach	7	Lobster	27	Sirloin Steak	103
Watermelon	7	Lentils	30	Cheese	106
Lemon	8	Scallops	32	Ham (baked)	106
Broccoli	8	Rice	33	Oatmeal	107
Mushrooms	9	Beans	34	Sugar	110
Cantaloupe	10	Pasta	36	Pretzels	111
Milk (fat free)	10	Tuna (in H ₂ O)	36	Crackers	114
Carrots	10	Olives (black)	37	Doughnut	117
Strawberries	11	Blue Fish baked	45	Fudge	117
Green Pepper	11	Egg (boiled)	47	Chocolate	151
Peach	11	Turkey (light)	50	Potato Chips	162
Grapefruit	11	Ice Cream	55	Peanut Butter	167
Cola Drink	12	Sardines	56	Almonds	171
Beer	13	Turkey (dark)	58	Bacon	175
Yogurt (fat free)	13	Pancakes	64	Walnuts	180
Orange	14	Bread	69	Butter	205
Apple	16	Whisky-86 prf	71	Mayonnaise	205
Milk (whole)	18	Apple Pie	73	Margarine	206
Cherries	19	Bread (white)	77	Vegetable Oil	253
Grapes	19	Jam/Jelly	78	Lard (fat)	260

Table 2: Calorie Rank (per ounce) of Common Foods

to estimate its caloric value; e.g., green beans are not listed, but judging from the ranking of similar foods a value of 6 or 7 Calories per ounce seems reasonable.

Table 2 can also be thought of as a listing of the “caloric density” of foods. For instance, the table illustrates that eight ounces (half pound) of carrots contains about 80 Calories, or approximately the same number of calories as one ounce of hamburger at 82 Calories per ounce. (Note that the numbers in the table are approximate Calories per fluid or dry ounce.)

Moreover, Table 2 in combination with a small weighing scale makes a very useful diet aide, allowing the calorie value of many food portions to be estimated quite accurately. It is a simple matter to weigh a piece of meat or a pancake, or a slice of apple pie, and multiply the weight in ounces by the calorie value per ounce (from Table 2) to determine the total number of calories. Frequently, this approach will result in more precise calorie values than those obtained from the numbers shown in a common calorie table where the portion size is often ambiguously described.

The preceding excerpt is from:

**WEIGHT CONTROL – U.S. Edition by Vince Antonetti, PhD
© 2012 by NoPaperPress. All rights reserved.**

Similar Calorie tables in metric units can be found in the following eBook published by NoPaperPress:

WEIGHT CONTROL – Metric Edition by Vince Antonetti, PhD

To download NoPaperPress eBooks, visit



- **Google's Open Directory Project describes NoPaperPress.com as "... a showcase of Fitness, Weight Control, Exercise and Nutrition eBooks ..."**
- **Besides award-winning eBooks, the NoPaperPress website is loaded with useful and free exercise, nutrition and weight control information.**