



# Healthy Living

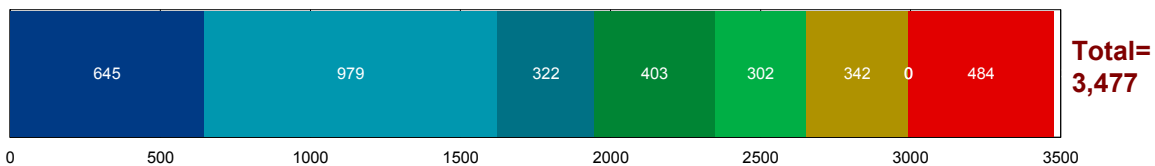


The essential fact of weight management is that you will lose weight if you burn more calories than you eat and will gain weight if you eat more than you burn. While popular diets differ in their distribution of macronutrients (protein, carbs and fats), all of these diets ultimately require a caloric deficit for weight loss.

The problem with all diets is that they offer no way to calculate the calories you are actually burning so that you can accurately and safely select an appropriate caloric intake. Instead, you are left guessing in a world where no two days of eating and activity are identical and where adjustments must be made as your body changes. Our analysis of your caloric expenditure pattern gives you a safe and accurate starting point for gaining muscle and losing fat that is individually calculated for your body.












## Caloric Expenditure Results for John Sample on 5/30/2004



### Activity Categories / Calories

Hours / Day

Calories

Calories Burned		Sleeping, resting in bed:	8.00	645
		Sitting, eating, listening, writing:	9.00	979
		Light activity while standing:	2.00	322
		Slow walking, driving, dressing, showering:	2.00	403
		Light manual work, household chores:	1.25	302
		Leisure activities and recreational sports:	1.00	342
		Manual work at a moderate pace:	0.00	0
		Leisure / sport activities at higher intensity:	0.00	0
		Intense work or exercise; competition:	0.75	484
		<b>Total:</b>	<b>24</b>	<b>3,477</b>

Calories Consumed

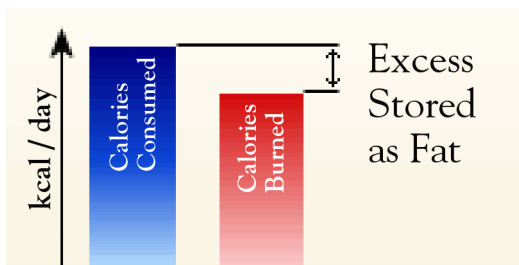
**Caloric Consumption Target:** 2877 calories

**Weight Management Goal:** Lose Weight

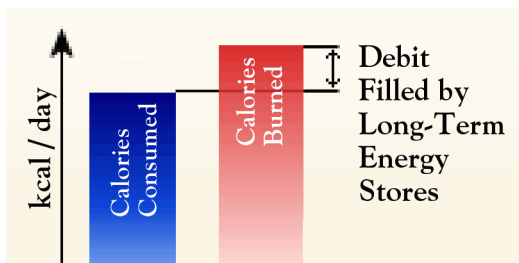
**Weekly Loss or Gain Goal:** 1.20 lbs

## Staying in Balance

If you are consuming more calories than you burn, you will **store the excess as fat**.



Similarly, if you burn more calories than you consume, you will **burn excess fat**.



Unfortunately, from a practical point of view, actual weight loss (or gain) is a bit more complicated than this. For example, the body adapts to large reductions in caloric intake by reducing the resting metabolism - thus making weight loss more difficult. This effect is cumulative: over the course of two months, resting metabolism can drop by as much as 30% with a "partial starvation" regimen\*.

Keep in mind as well that your metabolism (the speed with which your body processes food) is strongly affected by the kinds of food you eat and your eating patterns. Complex carbohydrates and high-fiber foods, for example, require more energy to process than simple sugars. This "thermic effect of food" - a sort of afterburn - is also increased by eating smaller meals more often.

## Your Metabolic Analysis

The metabolic analysis that we performed today started with an estimation of your resting metabolic rate. To this, we added estimates of the time that you spend in 8 additional states of physical activity on an average day.

This detailed activity analysis permits us to estimate your average daily caloric expenditure - the red bar in the graphs above. With this analysis in hand, you can alter your energy balance either by modifying food intake (the blue bar) or by increasing (or decreasing) your activity levels (the red bar).

## A "Slow" Metabolism?

This energy analysis is only as good as the estimates provided for time in each activity category. Unfortunately, it is a well-documented research result that most people underestimate their food consumption and over-estimate their activity levels and that this effect is stronger in obese people than in those of normal weight<sup>^</sup>. In essence, the often-cited "slow metabolism" is usually not a metabolic disorder at all but involves misperceptions regarding portion size when eating and the caloric demands of exercise. This is not a conscious distortion: it is an effect that operates well below conscious choice.

The best way to ensure that the current analysis is accurate is to maintain a careful activity diary for three days (two weekdays and one weekend day) and then use the average in each category.

## Where to go from Here

Now that you have a clear idea of your energy needs, you and your health professional can create a plan for appropriate weight management. If you are striving for weight loss, you must set realistic and achievable goals and avoid the temptation to do too much too fast.



In particular, weight reduction programs should focus on losing bodyfat while maintaining or even gaining lean body mass (greater lean mass = higher metabolism). Quick weight loss diets not only rely almost entirely on the loss of water weight - which you will quickly regain - they can result in dangerous levels of dehydration, loss of lean body mass (muscle), and damage to the kidneys. There is simply nothing beneficial about the classic "one pound per day" weight loss diet.

Since one pound of bodyfat yields about 3500 calories of useable energy and one hour of moderate exercise burns only 403 calories, you can see that exercise alone will not overcome a bad diet. You will need a realistic, long-term plan of caloric control together with a more active lifestyle\*\* to sustain permanent weight loss.

If you are looking to gain weight, your objective will be to mix strength training exercises with a moderate excess of the right kinds of food - just enough to offer developing muscles the protein and energy they need to grow.\*\*

\* Long CL, Schaffel N. et. al 1979. *Journal of Parenteral and Enteral Nutrition* 3:452-456.

<sup>^</sup> Braam LA, et.al. 1998. *Am J Clin Nutr.* 147:1081-1086.

\*\* Please talk with your physician before initiating a program of exercise.