

## Who Burns 2000 Calories Per Day?

Government regulators and expert scientists working on advisory committees base their nutritional recommendations on a particular number of calories being burned per day “on average”. This average then becomes the basis for more specific recommendations on the intake of fats, carbohydrates, and proteins. The Dietary Guidelines for Americans 2010 suggest sedentary men often require **2,000 to 2,600 calories** daily, while sedentary adult women often need just **1,600 to 2,000 calories** daily to maintain healthy weights. Furthermore, if someone is prescribed less than 1000 or 1200 Calories per day to lose weight, they require medical supervision according to guidelines issued by many medical and nutritional societies. On average, these guidelines make some sense, but 2000 Calories per day would lead to obesity in the many American women burning on average closer to 1600 Calories or less per day. The higher estimated daily calories allow the food industry to recommend eating more of the foods they sell or larger portions, which in the face of the global obesity epidemic may not be the best recommendation for public health.

How could this be changed in the future? In fact, the number of Calories\* an individual burns is determined by their body composition. Each pound of lean body mass including muscles and organs in the body burns on average 14 Calories per day (or 30 kcal/Kilogram per day). The fat tissue burns only about 6 kcal/kg so the lean body mass, also called the fat-free mass, accounts for about 75% or more of the total calories burned per day. To this the Calories burned by body fat, exercise and digesting foods is added to obtain total calories. When calories are cut as in a weight loss diet, the body may adjust total calories downward about 10 to 15 percent.. When all is said and done, the differences between individuals in number of calories burned is largely accounted for by differences in lean body mass.

By personalizing advice based on metabolism, strategies for weight management can be more effective.

**\*Note::** a dietary calorie is spelled with a capital “C” since it is 1000 chemical calories or one kilocalorie and each kilocalories raises the temperature of one liter of water one degree Centigrade. Calories in foods are determined by burning them in a chamber called a calorimeter. Within the human body, foods do not always yield all their calories as some are inefficiently digested or not digested at all as is the case with indigestible fiber.