**A calorie is a unit of energy. In nutrition and everyday language, calories refer to energy consumption through eating and drinking and energy usage through physical activity. For example, an apple may have 80 calories, while a 1 mile walk may use up about 100 calories.**

There are two types of calories:

* **A small calorie** (symbol: cal) - 1cal is the amount of energy required to raise one gram of water by one degree Celsius.
* **A large calorie** (symbol: Cal, kcal) - 1Cal is the amount of energy required to raise one kilogram of water by one degree Celsius.

1 large calorie (1kcal) = 1,000 small calories.

Most people associate calories just with food and drink, but **anything that contains energy has calories**. One ton of coal contains the equivalent in energy of 7,004,684,512 calories.

The terms large calorie and small calorie can be confusing, and to add further confusion, are often mistakenly used interchangeably. This article focuses on calories associated with foods, drinks and human energy expenditure (our burning up of energy).

According to Medilexicon's medical dictionary, a **Calorie** is "A unit of heat content or energy. The amount of heat necessary to raise 1 g of water from 14.5-15.5°C (small calorie). Calorie is being replaced by joule, the SI unit equal to 0.239 calorie."

The calories included in food labels are, in fact, kilocalories - units of 1,000 small calories. Therefore, a 250-calorie chocolate bar is actually 250,000 calories.

Why are calories important for human health?

The human body needs calories (energy) to survive, without energy our cells would die, our hearts and lungs would stop, and we would perish. We acquire this energy from food and drink.

If we consume just the number of calories our body needs each day, every day, we will probably enjoy happy and healthy lives. If our calorie consumption is too low or too high, we will eventually experience health complications.

The number of calories foods contain tells us how much potential energy they posses. Below are the calorific values of the three main components of the food we eat:

* 1 gram of [**carbohydrates**](http://www.medicalnewstoday.com/articles/161547.php) contains 4 calories
* 1 gram of protein contains 4 calories
* 1 gram of fat contains 9 calories

Lets look at where the calories in one cup of large eggs (243 grams) come from:

* Fat 24 grams.  
  24 x 9 = 216 calories.
* Protein 31 grams.  
  31 x 4 = 124 calories.
* Carbohydrate 2 grams.  
  2 x 4 = 8 calories
* 243 grams of raw egg contain 348 calories, of which 216 come from fat, 124 from protein and 8 from carbohydrate.

How many calories do we need each day?

Not everybody requires the same number of calories each day. Our ideal calorific consumption depends on several factors, including our overall general health, physical activity demands, sex, weight, height, and shape. A 6ft tall, 25-year-old professional soccer player needs many more calories each day than a 5ft 4ins sedentary woman aged 75.

Health authorities around the world find it hard to agree on how many calories their citizens should ideally consume. The US government says the average man requires 2,700 calories per day and the average woman 2,200, while the NHS (National Health Service) UK, says it should be 2,500 and 2,000 respectively.

The FAO (Food and Agriculture Organization) of the United Nations says the average adult should consume no less than 1,800 calories per day.