**Definition of a Calorie**

https://www.youtube.com/watch?v=SOqhHOoMPFk&t=2s

A calorie is a unit of energy commonly used to quantify the energy content of food and the energy expenditure of physical activities. In the context of nutrition and metabolism, a calorie is defined as the amount of heat energy required to raise the temperature of one gram of water by one degree Celsius (or one Kelvin) at a pressure of one atmosphere.

In nutrition, calories are used to measure the energy content of foods and beverages. When we consume food, our bodies extract energy from the macronutrients (carbohydrates, fats, and proteins) through metabolic processes, and this energy is measured in calories. The energy obtained from food is then used to fuel essential bodily functions, such as breathing, circulation, and cell repair, as well as physical activities and daily tasks.

The calorie content of food is typically expressed in kilocalories (kcal) or kilojoules (kJ), where 1 kilocalorie is equal to 1000 calories. For example, a food item labeled as containing 100 calories actually provides 100 kilocalories of energy when consumed.

Understanding the calorie content of foods is important for maintaining a balanced diet and managing body weight. By consuming an appropriate number of calories relative to our energy needs, we can ensure that we have enough energy to support our daily activities while avoiding excess calorie intake, which can lead to weight gain and related health issues.