

Average Energy Content of Nutrients

Nutrient	Cal/g	kJ/g
Protein	4	17
Fat	9	37
Carbohydrate	4	17
Alcohol	7	29

Converting Calories to Kilojoules

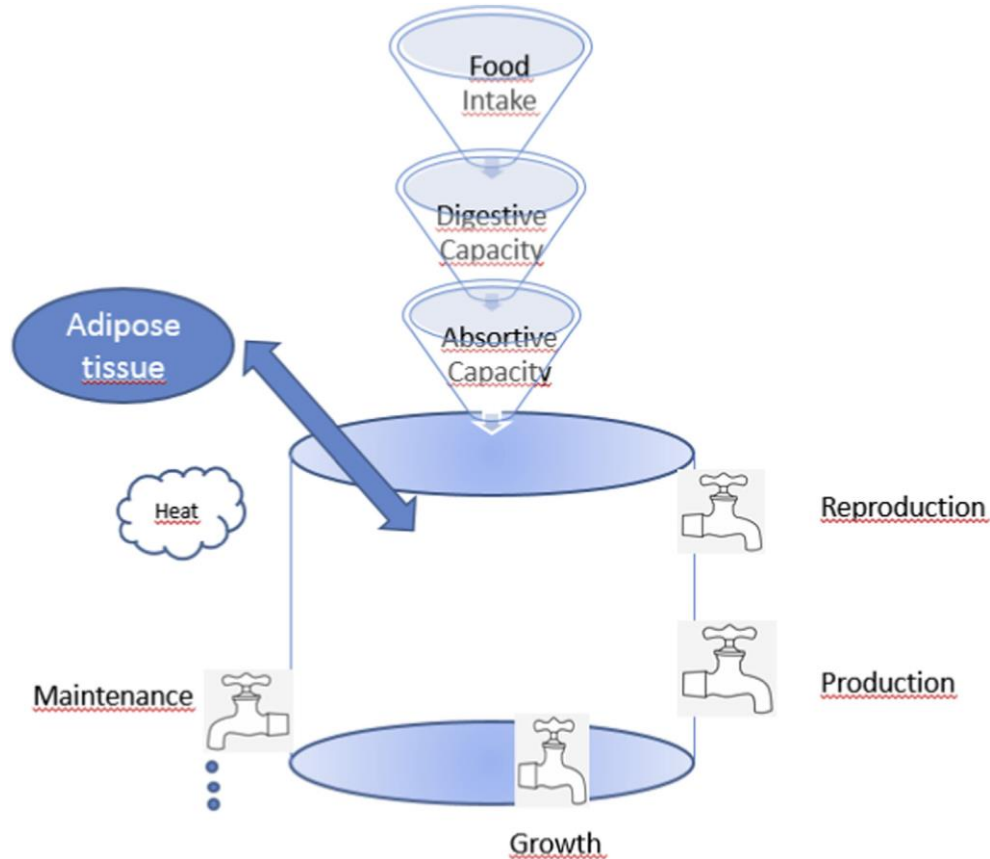
To convert Calories to kilojoules, use the following formula: **1 Calorie = 4.184 kilojoules.**

Calculation Example - Oatmeal

Calculate the energy content of 250 ml of cooked oatmeal using **specific energy factors**:

Specific Energy Factors for Oatmeal

Nutrient	Amount in g	Cal/g	Calories
Protein	3	x 3.46	10.38
Fat	1	x 8.37	8.37
Carbohydrate	13	x 4.12	53.56
Total energy			72.31 Cal
Total energy (Rounded)			70 Cal
Converted to kilojoules: $72.31 \text{ Cal} \times 4.184 = 302.5 \text{ kJ}$			
Converted to kilojoules (Rounded) : 300 kJ			



The barrel model modified after Huber (2018). In this model, reproduction only takes place after other needs, such as maintenance, growth etc, are met. Therefore, events that reduce intake or disturb other production variables affect reproduction capabilities.

Nutritional Terms:

Available nutrient: A nutrient which can be digested, absorbed, and(or) used in the body.

Balanced ration (or diet): A combination of feeds that provides the essential nutrients in the required proportions.

Basal diet: A diet common to all groups of experimental animals to which the experimental substance(s) is added.

In vitro: In a glass.. Occurring in an artificial environment, as in a test tube.

In vivo: Occurring in the living body.

Mucus: A slimy liquid secreted by the mucous glands and membranes

Silage: Feed resulting from the storage and fermentation of wet crops under anaerobic conditions.