

# The amount of energy of a certain type of food

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# Macronutrients

Macronutrients are vital nutrients necessary for the body in large amounts.

## Proteins

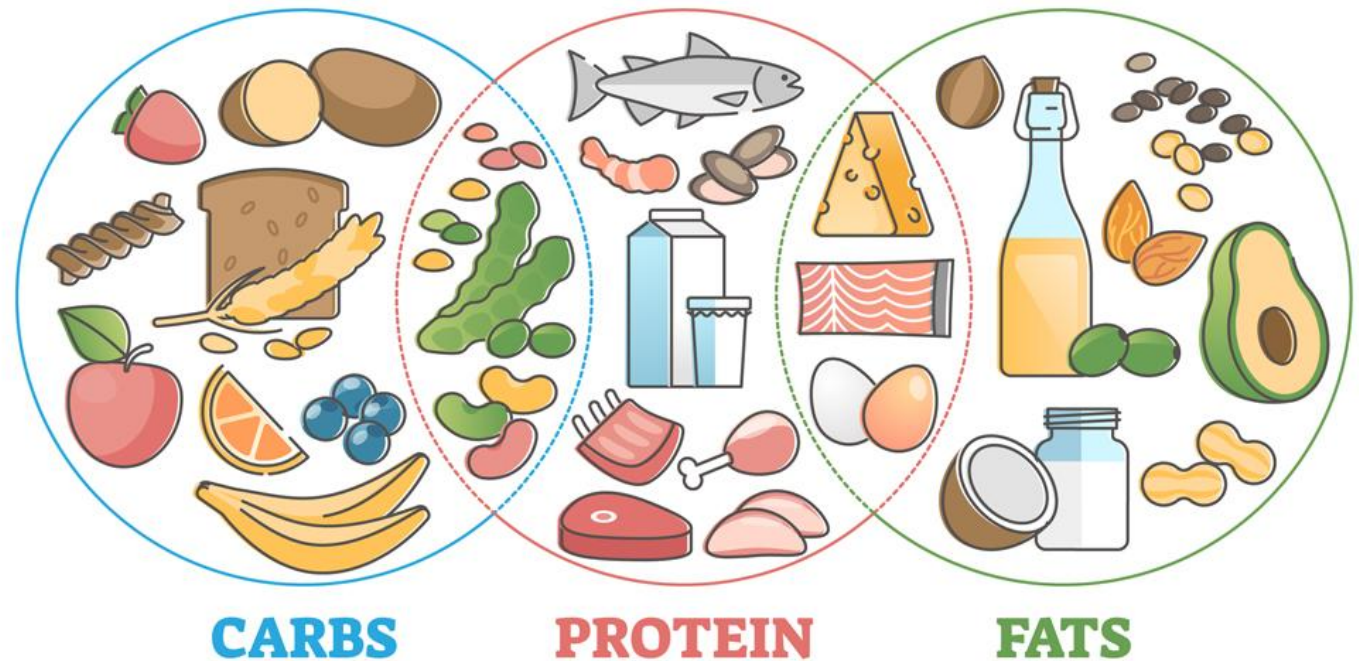
- Function as the building blocks of the body.

## Carbohydrates

- Act as the body's primary source of energy, for example: glucose and fructose.

## Fats

- Serve as the body's energy storage, with excess energy being stored in the form of fat.



# Calories

Calories are the amount of energy released when your body breaks down (digests and absorbs) food. The more calories a food has, the more energy it can provide to your body.

## Proteins

- 1 gram protein = 4 calories (Cal)

## Carbohydrates

- 1 gram carbohydrate = 4 calories (Cal)

## Fats

- 1 gram fat = 9 calories (Cal)

- There is a direct relationship between calories and body fat
- If you eat more calories than the body uses, the extra calories are stored as body fat
- 3500 calories = 1 lb body fat

1 lb (pound) = 0.45 kg

# Average calories for man and women

Various factors, like age, gender, and activity level, can influence the required daily calorie intake. However, on average:

- Males typically need around 2500 calories per day.
- Females generally require about 2000 calories per day.

If individuals engage in sports or physical activities, an additional 1000 calories can be added to their daily intake:

- For active males, the total would be 3500 calories per day.
- Active females would aim for a total of 3000 calories per day.



A single can of Coca Cola contains 140 calories.

Typically, people often consume 2-4 cans per day, contributing to a significant daily energy intake when combined with other foods they eat.



**1. Calculate the calories from carbohydrates, fats, and proteins for the following food items:**

**1.1 Food Item: Pasta**

- Carbohydrates: 40 grams
- Fats: 5 grams
- Proteins: 10 grams

**1.2 Food Item: Peanut Butter**

- Carbohydrates: 8 grams
- Fats: 16 grams
- Proteins: 7 grams

**1.3 Food Item: Yogurt**

- Carbohydrates: 15 grams
- Fats: 3 grams
- Proteins: 8 grams

**2. What is the total caloric content of each food item? (Add calories from carbohydrates, fats, and proteins)**

- Pasta: \_\_\_\_\_ calories
- Peanut Butter: \_\_\_\_\_ calories
- Yogurt: \_\_\_\_\_ calories

# Calculate their calories and decide which one of them has optimal intake of calories?

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## **1.Alex:**

How many calories does Alex consume from carbohydrates, fats, and proteins, given the intake of 200 grams of carbohydrates, 70 grams of fats, and 90 grams of proteins?

## **2. Emma:**

What is the calorie intake from carbohydrates, fats, and proteins for Taylor, considering the consumption of 150 grams of carbohydrates, 50 grams of fats, and 80 grams of proteins?

## **3. Jordan:**

For Jordan, with an intake of 250 grams of carbohydrates, 60 grams of fats, and 100 grams of proteins, what is the total calorie consumption from carbohydrates, fats, and proteins?