

HOW MANY CALORIES DO I NEED?



ESTIMATING ENERGY NEEDS

Everyone has a unique set of energy (calorie) needs based on age, sex, body weight and height, physical activity level, metabolism, and overall health. Energy needs can even differ from day-to-day in a person. The gold standard for estimating energy needs is by either using the doubly labeled water (DLW) technique or Indirect Calorimetry (IC). But because these tools are not always accessible to everyone, we often use the predictive equations outlined below instead. It is always advised to work one on one with a Registered Dietitian to determine your energy needs as there are many influencing factors.

BASAL METABOLIC RATE (BMR) CALCULATION

BMR represents the energy required to maintain basic bodily functions at rest. One of the most widely used equations to estimate BMR is the Mifflin-St. Jeor equation:

$$\text{For men BMR} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) + 5$$

$$\text{For women BMR} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) - 161$$

Once the BMR is calculated, you can adjust it based on activity level to estimate total energy expenditure (TEE) using the Physical Activity Level (PAL) multiplier, as mentioned in the previous response as there are many influencing factors.

PHYSICAL ACTIVITY LEVEL (PAL) MULTIPLIER

To estimate TEE, multiply the BMR by a PAL value that represents the level of physical activity. Here are some general PAL values:

- **Sedentary (little to no exercise): PAL = 1.2**
- **Lightly active (light exercise/sports 1-3 days/week): PAL = 1.375**
- **Moderately active (moderate exercise/sports 3-5 days/week): PAL = 1.55**
- **Very active (hard exercise/sports 6-7 days/week): PAL = 1.725**
- **Extra active (very hard exercise/sports & physical job or training twice a day): PAL = 1.9**

Multiply the BMR by the appropriate PAL value to estimate TEE.

BODY WEIGHT GOALS

If the goal is to maintain current body weight, the estimated TEE represents the approximate daily energy intake needed to maintain weight stability. Adjustments can be made based on individual factors and regular monitoring of weight and body composition.

If the goal is weight loss or weight gain, adjustments can be made to energy intake. Generally, a deficit of 500-1000 calories per day is recommended for gradual and sustainable weight loss, while a surplus of 250-500 calories per day is suggested for gradual weight gain.