

Energy Expenditure During Exercise

Employees are very good with numbers. Be it eating or exercising, they keep close track of their energy intake or expenditure, in the hope of controlling their body weight and shape. Do you still remember how to calculate energy expenditure during exercise? Let's revisit the formula:

$$\text{Exercise energy expenditure (kcal)} = \text{MET (metabolic equivalent) value} \times \text{exercise time (hour)} \times \text{body weight (kg)}$$

The higher the MET value, the more strenuous the exercise will be. The following tables show the energy expenditure after 30 minutes of office duties or workplace exercises, based on an adult body weight of 50 kg.

Office duties	MET value	Energy expenditure (kcal) after 30 minutes
Using a computer	1.5	37.5
Sitting - talking on the phone	1.5	37.5
Standing - talking on the phone	1.8	45



Workplace exercises	MET value	Energy expenditure (kcal) after 30 minutes
Walking up the stairs (at a slow pace)	4	100
Walking down the stairs (at a normal pace)	3.5	87.5
Walking (at a normal pace)	2	50
Brisk walking	5	125
Mild weight-bearing exercise for strengthening muscles (e.g. lifting water bottles or pulling a resistance band)	3.5	87.5



Why does weight loss hit a plateau?

- The body weight is one of the factors in calculating the exercise energy expenditure. At the beginning of your weight-loss plan, the body weight is at its peak. It is therefore easier to burn energy by exercising, leading to a more rapid decrease in the body weight.
- When the weight-loss plan works well, the body weight goes down. Yet, subsequently, doing the same exercise will burn less energy, resulting in a slower decrease in the body weight.

You can use the formula above to find out the energy expenditure during exercise. With greater effort, you can burn a bit more energy even at work. For example, you can stand up when talking on the phone, use the stairs more often and do some mild exercises. Also, don't rest on your laurels or ditch your exercise routine just because of a slight drop in the body weight; perseverance is the key.