

How to Calculate Energy Burned During Sports

A lot of people at work take notes of their energy intake when eating, and keep track of their energy consumption when doing exercise, in the hope of manoeuvring their body weight and figure. Do you still remember how to calculate energy expenditure? In case you have forgotten, here it is again:

$$\text{Exercise energy expenditure (in kcal)} = \text{MET} \times \text{time (hour)} \times \text{body weight (kg)}$$

The higher the MET (for “metabolic equivalent”) value, the more strenuous the exercise. The following example features the common duties of a 50-kg adult at work, the forms of exercise he/she could do in the office, and the energy consumption he could attain accordingly over a 30-minute span:

Office duties	MET	Energy (kcal) consumption over 30 minutes
Using the PC	1.5	37.5
Using the phone (seated)	1.5	37.5
Using the phone (standing)	1.8	45



Exercise that can be done in the office	MET	Energy (kcal) consumption over 30 minutes
Treading up or down the stairs	4 – 8.8	100 - 220
Walking (normal)	2	50
Walking (brisk)	5	125
Mild weight-bearing exercise for strengthening muscles (e.g. using water bottles, elastic bands, etc.)	3	75

Do you know...?

Why the plateau phase in weight-loss plan?

- According to the formula of “exercise energy expenditure”, one of the factors of energy consumption is “weight”. At the beginning of the regime, as “weight” is at its peak, more energy, and hence more weight, is burned during exercise.
- When the weight-loss plan is gaining ground, your weight goes down, so by doing the same kind of exercise, the level of energy being burned by the body will go down too, and so the rate of further weight loss will drop as well.

Using the formula above, you can work out the amount of energy consumption during exercise. Grab the opportunities to burn more energy: stand up to make phone calls, use the stairs and do mild exercise more often, and so on, so that you can burn a bit more energy even at work. Also, don't shelve your weight-loss plan just because of a slight drop in weight; perseverance is the key.