

# *Calculating Estimated Nutrient Needs*

## Harris Benedict Equation (HBE):

**Females REE\* (kcal):**  $655 + 9.56 (\text{weight in kilograms}) + 1.85 (\text{height in centimeters}) - 4.68 (\text{age})$

**Males REE\* (kcal):**  $66.5 + 13.75 (\text{weight in kilograms}) + 5.0 (\text{height in centimeters}) - 6.78 (\text{age})$

(weight in kilograms=weight in lbs/2.2)

(height in centimeters=height in inches x 2.54)

\*Resting Energy Expenditure= amount of calories your body needs to merely exist

## Activity Factors in HBE:

An activity factor must be applied to REE to determine the total amount of calories needed to sustain your current weight. This number is known as your BEE (Basal Energy Expenditure). Multiply the number from above by an activity factor. 1.1-1.5 depending on how active you are. Typically **1.3** is used in this population.

Example:

Molly is a 21-year old student. She is 5'5". Her weight is 130 lbs. Her activities include walking to class, usually using the stairs and taking 30 minute walks 3 times per week. What is Molly's BEE?

Weight in kg =  $130\text{lbs}/2.2 = 59\text{kg}$

Height in cm =  $65\text{inches} \times 2.54 = 165\text{cm}$

REE =  $655 + (9.56 \times 59) + (1.85 \times 165) - (4.68 \times 21) = 1426$   
calories

BEE =  $1426 \times \text{activity factor} = 1426 \times 1.3 = 1854$  calories

\*\*\*For a healthy weight loss of 1 to 2 pounds per week, decrease your BEE by 250 – 500 calories per day.\*\*\*