What are My Calorie, Protein, Fat, & Carbohydrate Needs?

Calorie Needs

The Harris-Benedict Equation for Basal Energy Expenditure (BEE) is commonly used to figure energy requirements based on sex, height, weight and age.

W = weight in kilograms H = height in centimeters A = age in years

Men: BEE = 66.5 + 13.8(W) + 5.0(H) - 6.8(A)

Women: BEE = 655.1 + 9.6(W) + 1.9(H) - 4.7(A)

Example:

Beth is a 47 year-old female. She is 5'5" tall and weighs 147 pounds. What is her BEE?

(147 pounds)/(2.2 pounds/kg) = 66.8 kg
(65 inches)(2.54 cm/inch) = 165 cm

BEE = 655.1 + [(9.6)(66.8 kg)] + [(5.0)(165 cm)] - [(4.7)(47 age)]
BEE = 655.1 + 641 + 825 – 221 = **1900 calories**

If Beth gets regular physical activity, her BEE may need to be multiplied by a factor of 1.2-1.5 to account for extra calories needed during exercise. A factor of 1.2 represents an average amount of activity, where 1.5 would be a very high amount of activity. We'll say Beth gets an average amount of activity. In this case her needs would be:

1900 calories (1.2) = **2280 calories**

Protein Needs

The American Dietetic Association (ADA) recommends daily protein intake for healthy adults as .8-1.0 g of protein/kg body weight.

Example:

Jay weighs 168 pounds. How much protein does he need per day?

(168)/(2.2g/kg) = 76.4 kg

76.4 kg (.8 g/kg) = 61 g
76.4 kg (1.0 g/kg) = 76 g **61 – 76 grams of protein per day**

Fat Needs

Fat intake should equal 30% of your total days calories.

Example:

Jackie consumes 1600 calories per day. How many calories and grams of fat should she be consuming each day? 1 gram of fat = 9 calories

1600 calories (.30) = **480 calories from fat**

(480 calories)/(9 calories/g) = **53 grams of fat per day**

Carbohydrate Needs

The USDA recommends that 45 to 65 percent of your total daily calories come from carbohydrates.

For example: To consume 60% of total daily calories from carbohydrate sources:

- A moderately active 18-year old male who requires 2800 calories a day would need to consume 1680 calories from carbohydrate sources.
- A moderately active 18-year old female who requires 2000 calories a day would need to consume 1200 calories from carbohydrate sources.

Fruits, vegetables, grains, and milk are carbohydrate sources.