



HOW DO WE USE ENERGY?

The amount of energy that we use every single day is composed of four major components: BMR, NEA, EA, and TEF. The graph shows what percentage of our total energy is dedicated towards each component.

Basal Metabolic Rate (BMR):

Energy required for basic human functions

Non-Exercise Activity (NEA):

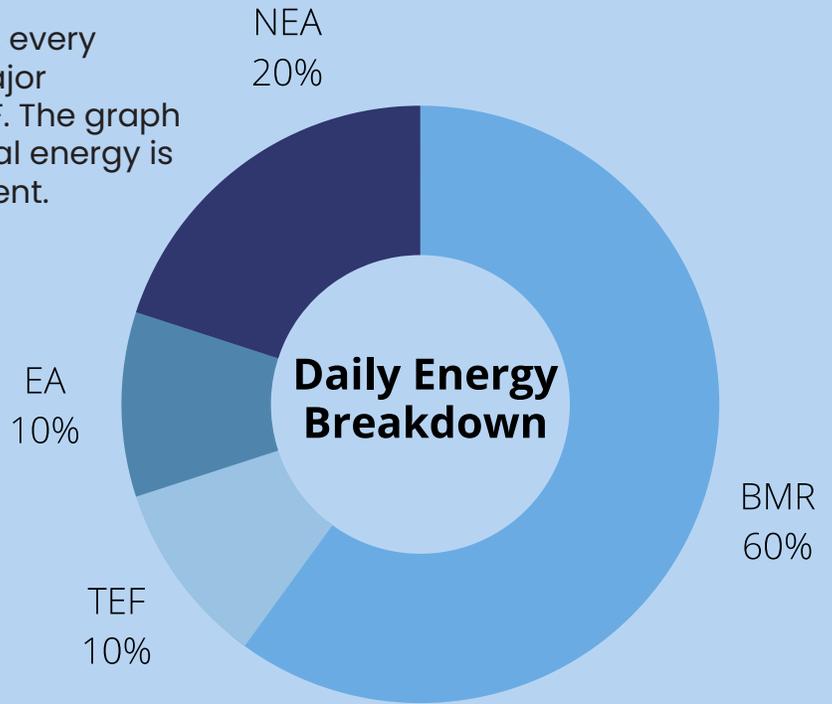
Energy needed for any activity that is not structured exercise

Exercise Activity (EA):

Energy that is burned during exercise

Thermic Effect of Food (TEF):

All energy required to eat and digest food



ACTIVITY 1

Give three examples for each way you use energy.

Basal Metabolic Rate (BMR)

- 1) _____
- 2) _____
- 3) _____

Exercise Activity (EA)

- 1) _____
- 2) _____
- 3) _____

Non-Exercise Activity (NEA)

- 1) _____
- 2) _____
- 3) _____

Thermic Effect of Food (TEF)

- 1) _____
- 2) _____
- 3) _____



CALCULATE YOUR ENERGY

ACTIVITY 2

Individual daily energy needs are going to depend on different factors such as: age, weight, height, sex, and activity level. Follow the steps below to calculate your own daily energy needs.

1. Convert your weight and height.

$$\text{Your weight in pounds (lbs)} \div 2.2 = \underline{\hspace{2cm}} \text{ kg}$$

$$\text{Your height in inches (in)} \times 2.54 = \underline{\hspace{2cm}} \text{ cm}$$

2. Plug in your personal information to calculate basal metabolic rate.

$$\text{For Males} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (4.92 \times \text{age}) + 5$$

$$\text{For Females} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (4.92 \times \text{age}) + 161$$

$$= \underline{\hspace{2cm}} \text{ BMR}$$

3. Choose your activity level from the chart. Then multiply your BMR by your activity factor.

Type of Activity	Description	Activity Factor
Sedentary	Little to no exercise	1.2
Lightly Active	30 min/day light-moderate exercise. Sports 1-3 days/week	1.375
Moderately Active	45 min/day moderate exercise. Sports 3-5 days/week	1.55
Very Active	1 hour/day hard exercise. Sports 6-7 days/week	1.725

Your daily energy needs = _____ calories



WHERE DOES ENERGY COME FROM?

NUTRIENT DENSE

Nutrient-dense foods are those that are richer in beneficial nutrients than they are in calories. Examples include: whole grain breads, fruit, veggies, lean meats, and dairy.

Aim to eat more nutrient dense foods for an efficient source of energy!

CALORIE DENSE

Calorie-dense foods include foods that are higher in calories than nutrients. They are going to give you energy but lack usable nutrients like essential vitamins and minerals. Examples include: candy, chips, soft drinks, and fast food.

ACTIVITY 3

Find a food item with a nutrition label. Fill in the nutrition information from your label into the table below. Once filled in, use the key below to circle the nutrient values that match any of the conditions in the key. Each circle counts as one point. Count all of your circled values and total your points in the Total Points column.

% Daily Value

Food Item	Calories	Saturated Fat%	Added Sugars%	Vitamin D%	Calcium%	Iron%	Total Points
Little Debbie Powdered Donuts	230	30%	28%	0%	2%	6%	0
Honey Nut Cheerios	140	0%	24%	10%	10%	20%	5

ADDED SUGARS: 10% or less

CALORIES: 200 or fewer

SATURATED FAT: 10% or less

ANY VITAMIN & MINERAL: 10% or more

NAME: _____



ANALYZE YOUR TABLE

Analyze your table on the last page and see how your food item compares to the food items already listed. Answer the questions below.

**1. Which food item has the highest nutritional value?
(hint: which food item has the most points?)**

**2. Which food item has the lowest nutritional value?
(hint: which food item has the least points?)**

3. Iron is often found in animal products and fortified cereals and is essential for the production/health of our blood. Which food has the highest iron percentage?

4. Added Sugar is often added during the processing of foods, and doesn't include natural sugars found in foods like fruit. Limiting added sugars can decrease the risk of cardiovascular diseases. Which food has the lowest % of added sugar?



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ENERGY GOAL SETTING

NAME

What are three concepts you learned from the video and/or workbook that you feel will be helpful to you and your overall nutrition/health?

1.

2.

3.

AIM

Based on what you have learned, write a goal for yourself below. Keep in mind, in order for a goal to be met, it must be specific and attainable within a certain amount of time.

CLAIM

List two steps that you will take in order to make progress towards meeting your goal.

1.

2.