

# Proteins and Complimentary Proteins

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# Objectives

- Determine alternatives to a meat-based meal.
- Try new protein alternatives
- Calculate the differences of protein choices then compare their nutritional values.

# What is a protein value

1 ounce of meat, poultry, or fish =

- ¼ cup cooked dry beans
- 1 egg
- 1 tablespoon of peanut butter
- ½ ounce of nuts or seeds
- ¼ cup of tofu
- 2 tablespoons of hummus
- ½ soy or bean burger patty

Vegetarians should count beans and peas as part of the protein group.  
Meat eaters should count beans and peas as part of the vegetable group.

# Protein in Food

## Incomplete proteins

- Animal sources
- Plant sources such as quinoa, soybeans
- Contains all amino acids

## Complete proteins

- Plant sources= (dried beans, nuts, seeds, vegetables)
- A singular source does not contain all the amino acids

# Complementary Proteins

- When two or more incomplete proteins are eaten together over a course of a day so all amino acids are present.
- **Examples**
  - 1. Beans and tortillas
  - 2. Peanut butter sandwich
  - 3. Macaroni and cheese
  - 4. Tofu with rice
  - 5. Hummus with pita bread
  - 6. Chickpeas and rice
- As long as you eat a variety of plant foods, such as brown rice, corn, nuts, seeds, whole grains and wheat within each 24-hour period, your protein needs should easily be met.

# top **meatless** protein sources

neilarey.com



nut butters  
8g / 2tbsp



oatmeal  
6g / per cup



Greek yogurt  
10g / per 100g



eggs  
6g / per egg



beans  
15g / per serving (180g)



nuts  
6g / per handful



cauliflower  
5g / per serving (180g)



broccoli  
5g / per serving (180g)



seeds  
6g / per handful



spinach  
5g / per serving (180g)

# Protein and Health

- Eating too much protein has no benefits and may result in:
  - Excessive kcalories
  - Excessive fat if you are eating too much high-fat animal foods
  - Calcium loss
- High intakes of animal proteins are associated with certain cancers, such as cancer of the colon

I can't believe it's not meat!!!!!!

**DEMO**



# How do you know which protein is the right choice?

- Each group prepares one item.
  - Prepare the amount your instructor has provided to you.
  - Make sure you prepare tasting size portions.
- Use your textbook to fill in the you line-item data.
- We will discuss what the best options based on the data, and taste values.