

# NUTRITION

## Talk

### Week 5: Macronutrient Jeopardy

1. **Objective:** The purpose of this week's tabling is to test students' knowledge on proteins, carbohydrates, and fats and to take away any misconceptions they may have of the each of those macronutrients.
2. **Activity:** You will have the slips of paper pertaining to each macronutrient and you will have to take the slips of paper and place them inside each category on the nutrition jeopardy board.
3. **Macronutrient jeopardy questions and answers:**

#### PROTEINS

**Q: How many kcals per gram do protein provide you?**

A: 4 kcals/gram

**Q: What is a good source of protein?**

A: Egg, dairy, chicken, fish, or beans

**Q: What is the simplest form of a protein?**

A: Amino acid

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**Q: How much of your daily intake should come from proteins?**

A: 10-35% of one's daily diet

**Q: What are complete proteins? How are they different from incomplete proteins?**

A: Complete proteins provide all nine essential amino acids in sufficient quantity. An example of a complete protein is eggs. They are different from an incomplete protein because incomplete proteins do not provide all 9 essential amino acids and must be supplemented with other proteins. An example of an incomplete protein is nuts.

**Q: Name one of our essential amino acids**

A: isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine, and histidine.

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**Q: While carbohydrates are needed in order to give us energy, proteins provide what essential benefit to our body?**

A: Needs protein to build, maintain, and repair tissues in our body and help them function and grow.

**Q: Which one of these foods provides the most protein to your body:**

**1/2 cup low-fat cottage cheese: (14)**

**3 ounces tofu, firm: (13)**

**1/2 cup cooked lentils: (9)**

**1 ounce cooked lean meat, fish, skinless poultry: (7)**

**1 ounce cheese: (7)**

A: The tofu

## **CARBOHYDRATES**

**Q: How many kcals per gram do carbohydrates provide you?**

A: 4 kcals/gram

**Q: What is a good source of carbohydrates?**

A: Rice (preferably brown rice), beans (white/black/kidney/garbanzo), wheat, sweet potatoes, oats, vegetables, or fruit.

**Q: What is the simplest form of a carbohydrate?**

A: Monosaccharide

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**Q: How much of your daily intake should come from carbohydrates?**

A: 45-65% of one's daily diet

**Q: What is a simple carb? How is that different from a complex carb?**

A: Simple carbs are sugars. For example, raw sugar, brown sugar, corn syrup, glucose, fructose, etc. These are different from complex carbs because complex carbs are higher in fiber and digest more slowly. For example, fruits, vegetables, nuts, beans, oatmeal, etc.

**Q: True/False: Low/no carb diets are healthy for individuals. (Why/why not?)**

A: False. Carbohydrates are needed in our body to give us energy to use (We NEED it!). However, choosing healthier carb options such as whole grain, fruits, vegetables, and beans is a healthier alternative to processed sugary foods that will only provide temporary energy.

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**Q: What's the difference between a whole grain and a refined grain?**

A: A whole grain keeps all parts of the grain kernel intact while the refined grains have been milled, which is a process that removes the germ and the bran. Examples of whole grains include: brown rice and oatmeal. Examples of refined grains include white flour, white bread, and white rice.

**Q: Fiber, starch, and sugars are the 3 main types of carbohydrates in food. What are some benefits of fiber?**

A: Fiber comes from the indigestible part of plant foods such as fruits, vegetables, whole grains, and nuts. So when you eat them, they pass through your body and don't get digested. This helps your body's digestive health and keeps you feeling full and satisfied for longer.

**Q: What is a glycemic index? What does this have to do with carbohydrates?**

A: Your glycemic index indicates how quickly carbs in foods are absorbed in the bloodstream. It DOES NOT tell you how many carbs are in a certain food. This is important because carbs that increase blood sugar quickly (like simple carbs) also increase your insulin levels. A quick increase in insulin makes your body feel hungry faster, which can lead to overeating and quickly gaining weight. That's why complex carbs such as fiber are better for you because they do not raise your insulin levels as quickly, therefore leaving you satisfied for longer.

**FATS**

**Q: How many kcals per gram do fats provide you?**

A: 9 kcals/gram

**Q: What is a good source of fat?**

A: Avocados, cheese, dark chocolate, fish, nuts, coconut oil/extra virgin olive oil, or whole eggs.

**Q: What is the simplest form of a fat?**

A: Fatty acids

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**Q: How much of your daily intake should come from fats?**

A: 20-35% of one's daily diet

**Q: What are the three kinds of fat?**

A: Saturated, monounsaturated, and polyunsaturated.

**Q: True/False: Trans fats are the healthiest kind of fat**

A: False! Trans fats are made by hydrogenated (adding hydrogen atoms) to monounsaturated or polyunsaturated fatty acids. These kinds of fats are mainly found in processed foods and have a negative effect on cholesterol.

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**Q: What are some harmful effects of saturated and trans fats?**

A: Saturated fats (come from animal sources of food such as red meat, poultry) raises total blood cholesterol, which can increase risk for cardiovascular disease. Trans fats are processed through hydrogenation (Adding hydrogen atoms) can also do the same thing (raise cholesterol and raise risk of heart disease).

**Q: What are some benefits to monounsaturated fats, polyunsaturated fats, and omega-3 fatty acids?**

A: Eating foods rich in monounsaturated fatty acids (ie: olive oil, canola oil) improves blood cholesterol levels, which can decrease your risk of heart disease. Omega-3 fatty acids are one type of polyunsaturated fat that is good for your heart! It also decreases risk of heart disease. One example of an omega-3 fatty acid is salmon!

4. **Prize system:** Prize for whoever comes to the table and participates! ☺
5. **More resources:**  
<http://www.merckmanuals.com/home/disorders-of-nutrition/overview-of-nutrition/carbohydrates,-proteins,-and-fats>  
<http://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/fat/art-20045550>

