

Workshop #6 Family Nutrition

Age Groups: This workshop is intended for family units, providing activities for both parents/guardians as well as children of all ages

Learning Objectives:

- Learn about nutritional facts and myths in a relaxed setting
- Teamwork and sharing skills for children
- Communicating your thoughts and opinions with others, explaining and defending an answer
- Work collaboratively with other community members/families to come up with the best answer collectively

Materials/Resources Needed:

- Handouts (attached)
 - Trivia template sheet
 - Trivia Questions for groups
 - Trivia questions and answer key for facilitator
 - Take-home nutritional fact sheet
- Pens/Pencils
- MyPlate Handout and Drawing Materials for children

Estimated Time Needed	Activity
5Minutes	<p>Introduction to activity:</p> <ul style="list-style-type: none"> ● According to the United States Department of Agriculture (USDA), 50% of every meal should be made up of fruits and vegetables. ● Fruits and vegetables are a good source of vitamins, minerals, antioxidants and fibers. <ul style="list-style-type: none"> ○ Vegetables and fruit are low in calories and fats, but are high in volume, and contain good amounts of vitamins and minerals to absorb into your body. ○ Many are also rich in nutrients, such as vitamins A and C, folate, and potassium, which are all beneficial for your health. ○ Diets rich in fiber-containing foods encourage healthy digestion, prevents blood sugar spikes, lowers cholesterol, and blood pressure levels, eases hunger pangs and lowers your risk of obesity and premature death. ● However, some fruits and vegetables are better for you than others. <ul style="list-style-type: none"> ○ Fruits have about 3 times the average calorie count of vegetables - this is due to a higher natural sugar count

	<ul style="list-style-type: none"> ○ It is also good to limit starchy vegetables like yams, potatoes, corn, beans, and peas because these have a higher caloric count and not as many beneficial additives as other fresher vegetables ● The main takeaway is that the more diverse your meal is the better it is for you. Even though fruits and vegetables should make up 50% of your every meal, you should balance your meal with other food groups such as grains, dairy, and meat. However, just like fruits and vegetables, there are some grains, dairy, and meat that are better for you than others. This can require extra research to understand the health benefits from each food source. <i>It is better to eat natural food rather than processed foods, this includes meat and dairy production processing as well***</i>
<p>20 Minutes</p>	<p>Practice Activity:</p> <ul style="list-style-type: none"> ● For this activity, have the room count off by 4, then have each group meet up with those who have the same number: creating four separate groups (<i>numbers can be changed dependent on group size</i>). <ul style="list-style-type: none"> ○ It's important that each group contains both kids and parents, but this allows for groups to consist of multiple members in order to not single out individuals who attend. ● <i>Some children might get distracted as some of the material is going to be over their heads. If this occurs, hand out paper plates or paper and have students draw the MyPlate Food Chart with foods in each category. See attachment for additional information.</i> ● Give each group a trivia sheet (attachment is printable). Have them create a team name. Give each group a question pamphlet, explain that you will grow through trivia questions all together, but this allows groups to refer to the questions themselves as you go along. <ul style="list-style-type: none"> ○ This handout is also attached, but does not have answers and explanations like the facilitator sheet. ● Explain to each group that you will read trivia questions out to the room. The first two questions of each round will be geared towards children (under 12). The second two questions will be geared towards young adults and adults (13+). ● The attachment has trivia questions listed along with explanations to each correct answer. Express to groups that they can take notes on interesting facts that surprise them. ● At the end of each round provide time to go over correct answers and explanations. Acknowledge teams who have gotten questions right. ● After all rounds are complete, announce the team winner.

10 Minutes	Wrap Up/Conclusion <ul style="list-style-type: none">• Think about what is grown in the community garden? What meals can you make out of these materials? What health benefits do some of the vegetables/fruits provide in said meal?• Finally, handout the nutritional fact sheet for families and individuals to take home.
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Resources:

<https://www.betternutrition.com/quiz-whiz/vegan-diet-facts>

<https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/vegetables-and-fruits/>

<https://well.blogs.nytimes.com/2012/04/18/the-well-quiz-test-your-vegan-i-q/>

<https://www.proprofs.com/quiz-school/topic/nutrition>

<http://www.nourishmentforlife.org/vegetables/facts-about-vegetables.htm>

<https://www.nutrition-and-you.com/vegetable-nutrition.html>

Trivia: Nutrition

Round 1:

1. How many servings of fruits and vegetables should you eat each day?
 - a. 2
 - b. 3
 - c. 5 or more
2. Which of the following foods is actually a fruit and not a veggie?
 - a. Tomato
 - b. Corn
 - c. Potato
3. Which of these foods has the most calcium per serving shown?
 - a. $\frac{1}{2}$ cup of cooked broccoli
 - b. $\frac{1}{2}$ cup of tofu
 - c. $\frac{1}{2}$ cup of whole milk
 - d. $\frac{1}{2}$ cup of cooked kale
4. Which fruits/vegetables are a good source of Vitamin A?
 - a. Spinach
 - b. Oranges
 - c. Carrots
 - d. All of the Above?

Round 2:

1. A cola drink is not a very good thing to drink before bedtime because of an ingredient called ___ that may keep you awake.
 - a. Water
 - b. Caffeine
 - c. Sodium
 - d. Potassium
2. Of the following breakfast items, which is the healthiest option?
 - a. A doughnut and juice
 - b. A fruit bowl and two scrambled eggs
 - c. Bacon and eggs
 - d. A bagel with cream cheese

3. The bioavailability* of calcium found in plant-based foods is about the same as that of calcium found in dairy foods.

***Bioavailability**: the proportion of a substance that enters the circulation when introduced into the body and so is able to have an active effect.

- e. True
 - f. False
4. A ½-cup serving of cooked spinach has 115 milligrams of calcium. How many servings would it take to equal the absorbable calcium from an 8-ounce glass of milk?
- a. 3 servings
 - b. 6 servings
 - c. 10 servings
 - d. 16 servings

Round 3:

1. Is spinach a:
 - a. Stem
 - b. Leaf
 - c. Flower

2. It's difficult to obtain sufficient vitamin D from plant-based foods.
 - a. True
 - b. False

3. Dairy foods provide what percentage of calcium in the American diet?
 - a. 25 %
 - b. 50 %
 - c. 75 %
 - d. 90 %

4. The incidence of iron-deficiency anemia* is higher among vegetarians than among meat-eaters.

***Iron-deficiency Anemia**: A common form of nutritional disorder, iron deficiency results in anemia as iron is necessary to make hemoglobin, key molecule in red blood cells responsible for the transport of oxygen.

- a. True
- b. False

Round 4:

1. Beans and legumes are plant-based sources of iron. Which of these contains the most iron?
 - a. Kidney Beans
 - b. Lentils
 - c. Lima Beans
 - d. Chickpeas

2. Vegans do not get adequate vitamin B12 from plant-based foods and need to eat fortified* foods or take supplements.

*Fortified: foods to which extra nutrients have been added. Examples of these nutrients include vitamin A, B vitamins, vitamin D, folic acid, iodine, and iron. The original purpose of food fortification was to decrease the occurrence of nutrient deficiencies.

- a. True
 - b. False
3. Which of the following foods can be used to make dairy-free cheese?
 - a. Sesame Seeds
 - b. Cashews
 - c. Almonds
 - d. Pine Nuts
 - e. All of the Above
4. Which of these foods has the most protein per serving shown?
 - a. 1 cup of Peas
 - b. $\frac{1}{3}$ cup of Walnuts
 - c. 1 ounce of Cheddar Cheese
 - d. 2 tablespoons of Peanut Butter

Group Name: _____

Round 1:

1) _____

2) _____

3) _____

4) _____

Take-Away Notes:

Round 2:

1) _____

2) _____

3) _____

4) _____

Round 4:

1) _____

2) _____

3) _____

4) _____

Round 5:

1) _____

2) _____

3) _____

4) _____

Trivia: Nutrition
(Answer Guide)

Round 1:

1. How many servings of fruits and vegetables should you eat each day?
 - a. 2
 - b. 3
 - c. **5 or more**

Answer: According to the USDA, half of your meals should be made up of fruits and vegetables.

2. Which of the following foods is actually a fruit and not a veggie?
 - a. **Tomato**
 - b. Corn
 - c. Potato

Answer: A tomato is a fruit because all fruits are developed from the ovary in the base of the flower, and contain the seeds of the plant (though cultivated forms may be seedless). However, this is a tricky question because tomatoes were classified as a vegetable to avoid a 10% import tax in 1893.

3. Which of these foods has the most calcium per serving shown?
 - a. ½ cup of cooked broccoli
 - b. **½ cup of tofu**
 - c. ½ cup of whole milk
 - d. ½ cup of cooked kale

Answer: 1/2 cup of tofu has 258 milligrams of calcium. Many brands of tofu are made using calcium sulfate as a coagulant (sometimes called "calcium-set" tofu) and can contain high levels of calcium per serving.

4. Which fruits/vegetables are a good source of Vitamin A?
 - a. Spinach
 - b. Oranges
 - c. Carrots
 - d. **All of the Above**

Answer: Vitamin A is important for normal vision, the immune system, and reproduction. Vitamin A also helps the heart, lungs, kidneys, and other organs work properly. Provitamin A can be found in leafy and colorful vegetables and citrus fruits (as well as other food groups such as meat, eggs, etc.)

Round 2:

1. A cola drink is not a very good thing to drink before bedtime because of an ingredient called ___ that may keep you awake.
 - a. Water
 - b. Caffeine**
 - c. Sodium
 - d. Potassium

Answer: Caffeine Impacts Kids' Sleep. Three out of four kids drink caffeine every day, and the more they drink, the less sleep they're likely to get.

2. Of the following breakfast items, which is the healthiest option?
 - a. A doughnut and juice
 - b. A fruit bowl and two scrambled eggs**
 - c. Bacon and eggs
 - d. A bagel with cream cheese

Answer: Fruit's natural sugars boost your energy while eggs provide you with protein, vitamin D, Vitamin B12 and healthy fats.

3. The bioavailability of calcium found in plant-based foods is about the same as that of calcium found in dairy foods.
 - e. True
 - f. False**

Answer: The amount of available calcium in a given food can vary. The calcium-rich plants in the kale family, for instance -- broccoli, bok choy, cabbage, mustard and turnip greens -- contain calcium that is as absorbable by the body as the calcium found in milk. But some plants (like certain beans and spinach) contain compounds that inhibit the absorption of calcium, so not all sources of dietary calcium are equal. Source: [Linus Pauling Institute](#)
***Bioavailability:** the proportion of a substance that enters the circulation when introduced into the body and so is able to have an active effect.

4. A ½-cup serving of cooked spinach has 115 milligrams of calcium. How many servings would it take to equal the absorbable calcium from an 8-ounce glass of milk?
 - a. 3 servings
 - b. 6 servings
 - c. 10 servings
 - d. 16 servings**

Answer: An 8-ounce glass of milk has about 300 milligrams of calcium, but the body absorbs calcium from milk more easily than it does from spinach. Oxalic acid, also known as oxalate, is the most potent inhibitor of calcium absorption and is found at high

concentrations in spinach and rhubarb and at somewhat lower concentrations in sweet potatoes and dried beans. Source: [Linus Pauling Institute](#)

Round 3:

1. Is spinach a:
 - a. Stem
 - b. Leaf**
 - c. Flower

Answer: Spinach (*Spinacia oleracea*) is an edible flowering plant in the family Amaranthaceae native to central and western Asia. Its leaves are eaten as a vegetable. Spinach is low in fat and even lower in cholesterol, spinach is high in niacin and zinc, as well as protein, fiber, vitamins A, C, E and K, thiamin, vitamin B6, folate, calcium, iron, magnesium, phosphorus, potassium, copper, and manganese.

2. It's difficult to obtain sufficient vitamin D from plant-based foods.
 - a. True
 - b. False**

Answer: Fish is the main food source of vitamin D, and cow's milk enriched with the vitamin is another. Vegetarians who eat dairy products can get vitamin D from milk and yogurt. Egg yolks, for those who eat them, are another source. For anyone following a purely plant-based diet, some plant foods have added vitamin D (check labels), and vegan vitamin D supplements are available.

3. Dairy foods provide what percentage of calcium in the American diet?
 - a. 25 %
 - b. 50 %
 - c. 75 %**
 - d. 90 %

Answer: Americans get 75 percent of their calcium from dairy foods, but most people still aren't getting enough calcium. Only about 25 percent of boys and 10 percent of girls ages 9 to 17 are estimated to meet the recommendations

4. The incidence of iron-deficiency anemia is higher among vegetarians than among meat-eaters.
 - a. True
 - b. False**

Answer: According to the American Dietetic Association "although vegetarian adults have lower iron stores than non-vegetarians, their serum ferritin levels are usually within the normal range."

**Iron-deficiency Anemia:* A common form of nutritional disorder, iron deficiency results in anemia as iron is necessary to make hemoglobin, key molecule in red blood cells responsible for the transport of oxygen.

Round 4:

1. Beans and legumes are plant-based sources of iron. Which of these contains the most iron?
 - a. Kidney Beans
 - b. Lentils**
 - c. Lima Beans
 - d. Chickpeas

Answer: Cooked, per cup, lentils contain 6.6mg, compared to 5.2mg in kidney beans, 4.7mg in chickpeas, and 4.5mg in lima beans.

2. Vegans do not get adequate vitamin B12 from plant-based foods and need to eat fortified foods or take supplements.
 - a. True**
 - b. False

Answer: According to the American Dietetic Association, no unfortified plant food contains any significant amount of active vitamin B12. Vegans must obtain it by consuming B12-fortified foods, like fortified soy and rice beverages, some breakfast cereals or a daily supplement.

**Fortified:* foods to which extra nutrients have been added. Examples of these nutrients include vitamin A, B vitamins, vitamin D, folic acid, iodine, and iron. The original purpose of food fortification was to decrease the occurrence of nutrient deficiencies.

3. Which of the following foods can be used to make dairy-free cheese?
 - a. Sesame seeds
 - b. Cashews
 - c. Almonds
 - d. Pine Nuts
 - e. All of the above**

Answer: Sesame seeds, cashews, almonds and pine nuts can all be used to make a cheese-like food that can replace traditional cheese in recipes.

4. Which of these foods has the most protein per serving shown?

- a. 1 cup of Peas
- b. $\frac{1}{3}$ cup of Walnuts
- c. 1 ounce of Cheddar Cheese
- d. 2 tablespoons of Peanut Butter

Answer: Who knew peas were high in protein? According to the Agriculture Department's National Nutrient Database for Standard Reference, a cup of cooked peas has about 9 grams of protein.

Nutritional Fact Sheet: Vitamins and Minerals

Vitamin A: helps form and maintain healthy skin, teeth, skeletal and soft tissue, mucus membranes, and skin. It is also known as retinol because it produces the pigments in the retina of the eye. Vitamin A promotes good vision, especially in low light.

Foods rich in vitamin A: beef, carrots, sweet potato, spinach, kale, broccoli, butter, eggs.

Vitamin B12: also called cobalamin, is a water-soluble vitamin that has a key role in the normal functioning of the brain and nervous system via the synthesis of myelin, and the formation of red blood cells. It is one of eight B vitamins.

Foods rich in vitamin B: fish, meat, poultry and eggs

Vitamin C: You need vitamin C for the growth and repair of tissues in all parts of your body. It helps the body make collagen, an important protein used to make skin, cartilage, tendons, ligaments, and blood vessels. Vitamin C is needed for healing wounds, and for repairing and maintaining bones and teeth.

Foods rich in vitamin C: cantaloupe, citrus fruits and juices, kiwi fruit, mango, papaya, pineapple, strawberries, watermelon.

Vitamin D: plays a substantial role in the regulation of calcium and maintenance of phosphorus levels in the blood, two factors that are extremely important for maintaining healthy bones.

Foods rich in vitamin D: fish, beef, egg yolk, mushrooms, milk, yogurt, almonds, fortified grains.

Vitamin E: is an antioxidant. This means it protects body tissue from damage caused by substances called free radicals, which can harm cells, tissues, and organs. They are believed to play a role in certain conditions related to aging.

Foods rich in vitamin E: sunflower seeds, almonds, pine nuts, tomatoes, olives, avocados.

Iron: an essential element for blood production. About 70 percent of your body's iron is found in the red blood cells of your blood called hemoglobin and in muscle cells called myoglobin. Hemoglobin is essential for transferring oxygen in your blood from the lungs to the tissues.

Foods rich in Iron: dark chocolate, lentils, spinach, tofu, quinoa, pumpkin seeds, potatoes.

Percentages of calcium:

The table below shows recommended daily intake for calcium:

Table 1: Recommended Dietary Allowances (RDAs) for Calcium [1]

Age	Male	Female	Pregnant	Lactating
0–6 months*	200 mg	200 mg		
7–12 months*	260 mg	260 mg		
1–3 years	700 mg	700 mg		
4–8 years	1,000 mg	1,000 mg		
9–13 years	1,300 mg	1,300 mg		
14–18 years	1,300 mg	1,300 mg	1,300 mg	1,300 mg
19–50 years	1,000 mg	1,000 mg	1,000 mg	1,000 mg
51–70 years	1,000 mg	1,200 mg		
71+ years	1,200 mg	1,200 mg		

* Adequate Intake (AI)

- 1/2 cup of tofu has 258 milligrams of calcium. Many brands of tofu are made using calcium sulfate as a coagulant (sometimes called "calcium-set" tofu) and can contain high levels of calcium per serving.
- One stalk of broccoli contains 71mg of calcium
- One cup of chopped kale contains 101 mg of calcium
- One cup of milk contains 305 mg of calcium

Percentages of Iron: The suggested daily intake of iron from foods and supplements is between 16-20.5mg.

- 1 cup of kidney beans contains 15.1mg of iron
- 1 cup of pumpkin seeds contains 2.1mg of iron
- 1 tablespoon of chickpeas contains 0.8mg of iron