



SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS
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Leader Training Guide

Potatoes: Yes, They Are Healthy!

Objectives:

1. Dispel myths about consuming (white) potatoes.
2. Nutrients in potatoes.
3. Include potatoes in a healthy diet.

Lesson Overview/Introduction:

Information regarding potatoes may have created some confusion about what is healthy and what is not. Low-carbohydrate diets, glycemic index, starchy, sweet potatoes are words sometimes associated with potatoes. This lesson will clarify common misconceptions about potatoes and teach participants how to include potatoes in a healthy diet.

Lesson:

- Potato is a starchy vegetable and is one of the leading staple food crops of the world. Botanically, potato is a vegetable **tuber** and included in the USDA's vegetable food group. It is often dubbed a starch and in the "starchy" food group", which is actually not a food group, but a subcategory including foods that are high in carbohydrate. This "starch group" has been used as a part of the diabetic exchange system to assist individuals with diabetes in planning their diet and choosing foods that help control their blood glucose. Diabetics also use it to aid weight management and guide heart-healthy eating.
- The United States Department of Agriculture (USDA) organizes the vegetables within the 'vegetable food group' into 5 subgroups. Based on nutrient content, potatoes are in the "starchy vegetables" subgroup. A 5.3 ounce, medium-size potato with skin counts as 1 cup of starchy vegetables.
- The Dietary Guidelines for Americans (2010 edition) recommends that half of your plate consists of vegetables (and fruits). Each vegetable (and fruit) has a different vitamin, mineral and phytochemical make-up; this is why the DGAs recommends consuming a variety of fruits and vegetables.
- The potato is a vegetable and can be counted in the recommended servings of vegetables per day. They are often referred to as 'white' potatoes, as the flesh is light-colored as compared to 'sweet' potatoes, in which the flesh is orange. Though both vegetables are called 'potatoes', they actually come from different botanical families. There are over 100 varieties of potatoes.
- The (white) potato, scientifically known as *Solanum tuberosum L.*, is a member of the night shade family (Solanaceae), which also includes tomato (*Solanum lycopersicum*), eggplant (*S. melongena*), chilli pepper (*Capsicum annuum*) and petunias (*Petunia species*). The sweet potato, scientifically known as *Ipomoea batatas*, belongs to the Convolvulaceae plant family which includes the morning glory.
- Potatoes are a nutrient-dense food. A medium-size (~5.3 ounce), potato with skin contains ~110

calories, provides more potassium (620 grams) than a banana, half the daily value of vitamin C (45%), and contains no fat, sodium or cholesterol.

- **Potassium**

The 2010 U.S. Dietary Guidelines recommends Americans increase their intake of potassium. The Adequate Intake (AI) is 4,700 milligrams / day and it is estimated that as high as 98% of Americans do not consume enough (or nearly that amount). Research suggests a diet high in sodium and low in potassium may be one factor (of many) leading to high blood pressure and cardiovascular disease.

- **Vitamin C**

Vitamin C has many important functions; it acts as an anti-oxidant, stabilizing free radicals, helps in wound healing, keeps gums healthy and supports the body's immune system.

- **Fiber**

A medium-size potato contains 2 grams of fiber – contributing 8% of the daily value per serving. Fiber is important for digestive health and may help lower blood cholesterol.

- **Other nutrients**

A medium-size potato includes vitamin B6 (10%), which plays a role in metabolizing protein and carbohydrate, and iron (6%) – a major component of hemoglobin. Trace amounts of zinc, folate, magnesium, thiamine, phosphorous, and riboflavin are other nutrients found in potatoes.

- To control calories and fat, consider your toppings. One tablespoon of sour cream has 26 calories. Butter is much higher in calories, with 102 calories per tablespoon. Most calories in sour cream and all calories in butter come from fat. So if you add a tablespoon of butter and a tablespoon of sour cream to your potato, it will contain ~ 238 calories. The more butter and sour cream you add, the higher your meal in calories and artery-clogging saturated fat. Margarine also has ~100 calories per tablespoon.

Suggested baked potato toppings:

- Fresh veggies, raw or lightly steamed: broccoli, onions, garlic, cauliflower, carrots, baby spinach, diced tomatoes and cucumber or, -colored lettuce.
- Beans: black, great northern, chick peas, pintos, red beans, etc.
- Non-fat or low-fat yogurt, cottage cheese, sour cream, or hard cheese.
- Herbs and spices: fresh or dried: dill, cumin, poultry seasoning, Italian seasoning, oregano, basil, parsley, paprika, onion powder, garlic powder, black, red or white pepper.
- Others: olive oil (a teaspoon), salsa

Lesson Summary:

The potato is a low-cost, nutrient-dense vegetable that can be included in a healthy diet, even for individuals who want to lose weight. Healthy eating is not about eliminating a certain food or food groups. Rather, it is a diet high in nutrient-dense foods, keeping portion size in check, and keeping potato toppings 'light and lean'!

* Please follow the advice of your doctor if you have been prescribed to follow a 'special – 'or therapeutic diet.

Suggested Activities:

1. Compare Nutrition Facts labels for potatoes processed with different methods. See page 4. Fill in the blanks and discuss different ways members have prepared potatoes in a healthy way.
2. Prepare a medium size baked potato – weigh the potato and try to choose one as close to 5.3 ounces as possible. This helps participants “see” a healthy portion. Provide 3 healthy toppings from the list above – try it with no butter, no sour cream and no salt. This will also demonstrate the importance of portion size. You could do this activity as a “potluck” lunch and have each Club member bring a different, healthy topping to share. Remember – have everyone keep the portions healthy!
3. Purchase one each of several different varieties of potatoes and show to the group. Consider purple potatoes, fingerlings, or others that may be less commonly purchased by participants.

Suggested Materials:

- Nutrition Label Comparison handout, or
- A 5.3 ounce potato and 3 healthy toppings of choice, or
- One each of several varieties of potatoes, or
- Any combination of the above activities.

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Sources/References:

www.choosemyplate.gov

www.diabetes.org

www.DietaryGuidelines.gov

www.clemson.edu/extension/hgic/plants/vegetables/crops/hgic1322.html

www.clemson.edu/extension/hgic/plants/vegetables/crops/hgic1317.html

<http://extension.illinois.edu/veggies/sweetpotato.cfm>

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Grade Level: 5 to 7

Nutrition Label Comparison

Some foods are very healthy in their natural form, but change when they are processed. An example of this is a potato. Potatoes are high in carbohydrate, fiber, and vitamin C. Not all foods made from potatoes are equal in nutrition, though. This activity will help you see how processing affects the nutrition of potatoes.

Directions: Use the nutrition labels below to complete the information for each type of potato product, then use that information to answer the questions on the next page.

Baked Potato

Nutrition Facts	
Serving Size 1 potato (148g/5.3oz)	
Amount Per Serving	
Calories 100	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 0mg	0%
Potassium 720mg	21%
Total Carbohydrate 26g	9%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 4g	
Vitamin A 0% • Vitamin C 45%	
Calcium 2% • Iron 6%	
Thiamin 8% • Riboflavin 2%	
Niacin 8% • Vitamin B ₆ 10%	
Folate 6% • Phosphorous 6%	
Zinc 2% • Magnesium 6%	

*Percent Daily Values are based on a 2,000 calorie diet.

French Fries

Nutrition Facts	
Serving Size 1 medium order 147g (147 g)	
Amount Per Serving	
Calories 453	Calories from Fat 193
% Daily Value*	
Total Fat 22g	33%
Saturated Fat 4g	19%
Trans Fat	
Cholesterol 0mg	0%
Sodium 290mg	12%
Total Carbohydrate 57g	19%
Dietary Fiber 5g	21%
Sugars 0g	
Protein 7g	
Vitamin A 0% • Vitamin C 30%	
Calcium 1% • Iron 6%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Hash Brown Patties

Nutrition Facts	
Serving Size 1 Pattie (About 64g)	
Servings Per Container 15	
Amount Per Serving	
Calories 120	Calories from Fat 60
% Daily Value*	
Total Fat 7g	11%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 250mg	10%
Total Carbohydrate 15g	5%
Dietary Fiber 1g	4%
Sugars 0g	
Protein 1g	
Vitamin A 0% • Vitamin C 2%	
Calcium 0% • Iron 2%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Potato Chips

Nutrition Facts	
Serving Size 1 oz.	
Amount Per Serving	
Calories 160	Calories from Fat 80
% Daily Value*	
Total Fat 10g	16%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Potassium 340mg	10%
Total Carbohydrate 14g	8%
Dietary Fiber 1g	4%
Sugars 0g	
Protein 2g	
Vitamin A 0% • Vitamin C 10%	
Calcium 0% • Iron 0%	
Vitamin E 6% • Thiamin 2%	
Niacin 4% • Vitamin B ₆ 6%	
Phosphorus 4%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Serving Size: _____
 Total Fat: _____
 Vitamin C: _____
 Sodium: _____

Serving Size: _____
 Total Fat: _____
 Vitamin C: _____
 Sodium: _____

Serving Size: _____
 Total Fat: _____
 Vitamin C: _____
 Sodium: _____

Serving Size: _____
 Total Fat: _____
 Vitamin C: _____
 Sodium: _____

Answer the following questions using the information from the last page.

1. Compare the total fat content of the different types of potato products. Rank them from lowest to highest.

1. _____
2. _____
3. _____
4. _____

2. Compare the Vitamin C content of the different types of potato products. Rank them from lowest to highest.

1. _____
2. _____
3. _____
4. _____

3. Compare the sodium content of the different types of potato products. Rank them from lowest to highest.

1. _____
2. _____
3. _____
4. _____

4. What happens to the Vitamin C in a potato when it is processed into other products?

5. Which of the potato products do you think is most nutritious? Explain how you came up with this answer.

Nutrition Label Comparison - Answer Key

Question 1:

1. Baked Potato – 0 g
2. Hash Brown Patties – 7 g
3. Potato Chips – 10 g
4. French Fries – 22 g

Question 2:

1. Hash Brown Patties – 2%
2. Potato Chips – 10%
3. French Fries – 30%
4. Baked Potato – 45%

Question 3:

1. Baked Potato – 0 mg
2. Potato Chips – 160 mg
3. Hash Brown Patties – 250 mg
4. French Fries – 290 mg

Question 4: Vitamin C is lost when the potato is processed into other products.

Question 5: The baked potato is the most nutritious. It has the lowest fat and sodium content, as well as the highest Vitamin C.