



Fruits and Vegetables

Lesson 6: Garlic and Onions

Getting Started

1. Review lesson plan before each session.
2. Gather supplies needed for lesson and activities.
3. Copy handouts:
 - a. *Meals + Garlic and Onions = A Happy Heart and Tummy*
 - b. *Be Smart about Garlic and Medicines*
 - c. *Remember Onions with this Catchy Phrase*
 - d. *Take Care To Prepare*
 - e. Table tent (at least one for each table; copy on card stock paper)
 - f. Recipes (3)

Supplies Needed

1. Handouts
2. Vegetable characters - Ollie Onion and Gary Garlic.
3. NOAH News headline.
4. Ingredients for recipe you choose to prepare.
5. Supplies for tasting recipe, such as plates, forks or spoons, and napkins
6. Minced garlic and/or onions to set out before lesson to allow odor to spread.
7. Fresh garlic bulbs, garlic powder, bottled minced garlic and/or varieties of onions to display and refer to during lesson (*can use as prizes for participants for answering questions, etc.*).

Beginning the Lesson

1. Introduce yourself by name and the organization you represent.
2. Summarize the lesson by giving the objectives.
3. Let the group know the lesson will be informal and they can ask questions anytime.

Objectives – The participants will:

1. Understand the health benefits of garlic and onions against heart disease and cancer.
2. Learn the risk of eating too much garlic while taking blood thinners and/or eating foods and herbs that act like blood thinners.
3. Learn how to select and store garlic and onions.
4. Identify new ways to prepare garlic and onions.



Script

Introduction

(Set out an open container of chopped garlic and/or chopped onion before you begin lesson to allow odor to spread to audience. Display other examples of garlic and onions to refer to during lessons and/or to use as prizes.)

Let's take a look at our headline (*display handout/overhead/ with headline*). What may be the secret to staying healthy and fit as we age? **Eating 5 to 9 servings of colorful fruits and vegetables every day – 5 A Day the Color Way, our age-defying formula for health that may help:**

- 1. Fight cancer.**
- 2. Fight heart disease.**
- 3. Fight effects of aging** (on eyesight, memory, immune function and painful inflammation).

Remember, if there is one thing certain about diet, it is that you may reduce your risk of cancer, heart disease and other conditions associated with aging if you eat at least 5 servings of colorful fruits and vegetables daily, as part of an overall diet low in saturated fat and cholesterol.

So, how are all of you going to help yourself fight cancer, heart disease and other diseases of aging? Say it with me – **5 A Day the Color Way, eating 5 to 9 servings of colorful fruits and vegetables every day to stay healthy and fit** (*hold up handout/show overhead*).

Let's review. What is the rainbow of colors for staying healthy and fit?

Blue-purple – like blueberries, blackberries, raisins and eggplant

Yellow-orange – like oranges, grapefruit, peaches, summer squash and sweet potatoes

Red – like strawberries, cherries, tomatoes and red cabbage

White – like bananas, onions, garlic and cauliflower

Green – like grapes, kiwi, broccoli and spinach

Just like the different colors of *Lifesavers™ Candy* represent different flavors, different colors of fruits and vegetables represent different flavors and different disease-fighting nutrients that help you stay healthy and fit. That is why we need **5 A Day the Color Way!**



Today we are going to talk about vegetables that are such strong disease fighters you can smell their strength. I think I can smell them now. Can anyone else? What is it? *Wait for answers.* That's right, garlic and onions (*pick up containers of chopped garlic/onions and pass around*). Let me introduce you to two of my smelly vegetable friends, **Ollie Onion** and **Gary Garlic**.

(Introduce and display these characters. Ask the participants if they regularly eat garlic and onions, how often they eat them, or how they like to eat them.)

Garlic and onions have been around a long time. Folks in ancient times linked onions with eternal life because of their seemingly endless layers. They also thought onions had various healing powers. Garlic has been used in medical treatments for centuries. Healers long ago used garlic to thin blood and to kill bacteria. Today, scientists are finding these ancient doctors may have been on to something.

Nutrition Benefits

When you think of garlic and onions you probably think of their distinct odors and the delicious flavors they add to foods. Did you know that the substances in garlic and onions that make them smell so strongly are also what make them strong disease fighters? It is true. In part, the garlic and onion odors are due to phytochemicals called allicin and organosulfur compounds, the same compounds that scientists think show disease fighting actions. *If necessary, review phytochemicals – special disease fighters, or “phyters,” in fruits and vegetables that are also responsible for the bright colors and distinct odors of produce.*

People who study garlic and onions think people who eat garlic and onions have less heart disease and cancer. In fact, garlic and onions may have many disease fighting activities:

1. May help thin blood and reduce risk of heart attack and stroke.
2. May help lower total blood cholesterol and help increase HDL cholesterol (good or healthy cholesterol) and thus reduce risk of heart disease.
3. May help reduce inflammation, a common problem in many diseases, including asthma, heart disease and arthritis.
4. Can kill cancer cells in test tubes and may help reduce risk of cancer in humans who eat garlic and onions.
5. May help reduce risk of stomach ulcers caused by certain bacteria due to antibacterial properties.

Garlic and onions may do all this and add great flavor to food. Does this make you want to eat more garlic and onions? The evidence seems to suggest you'll reduce your risk of heart disease and cancer if you do. (*Show handout, **Meals + Garlic and Onions = A Happy Heart and Tummy**, as a reminder to include garlic and onions in meals.*)



Alert! Avoid too much of a good thing

Even though garlic and onions are power-packed veggies, it is possible to eat too much of these good foods in some cases. You have to know when to say **Enough**. Garlic can help fight heart disease because it works like a blood thinner. This helps prevent blood clots from forming and causing a heart attack or stroke. However, eating too much garlic may make your blood *too* thin if you also take certain medicines.

If you take medicine to prevent blood clots, then eating lots of garlic and onions may cause your blood to become too thin. If you are taking blood thinners (like Coumadin®, warfarin or aspirin), it is very important to **NOT** eat large amounts of garlic.

REMEMBER – A good rule of thumb about eating garlic:

1. If you **ARE NOT TAKING** blood thinners, then eat up to five cloves of garlic per day.
2. If you **ARE TAKING** blood thinners (e.g., Coumadin®, warfarin or aspirin) or eating foods or herbs that act like blood thinners, then eat no more than one garlic clove per day.
3. If you are scheduled to have surgery, stop eating garlic two to three weeks before surgery and wait to begin eating garlic until two to three weeks after surgery (or as directed by your doctor).
4. If you are eating large amounts of garlic, do **NOT** eat these foods or take these supplements: high intakes of vitamin E, fish oil and fish oil supplements, ginkgo biloba, feverfew, ginger and ginseng. **Always** tell your doctor if you take these items.

REMEMBER: These are general tips. Discuss the possible problems of any medicines you are taking with your doctor. (*Show handout, **Be Smart About Garlic and Medicines**, to reinforce the message.*)

Shopping and Storage Tips

Fresh garlic and onions add more power to the punch. When shopping, use these tips to find the freshest.

Garlic: Good quality garlic has firm, plump bulbs with tightly closed cloves. The outside skin should be tight and unbroken. Do not buy shriveled, soft, sprouting, or moldy bulbs. Store garlic in a cool dry place that is well ventilated. Do not store fresh garlic in the refrigerator and do not store near potatoes or onions.

Onions: Good quality onions do not have sprouts or show decay. They should be dry and firm. Some varieties are flatter in shape and have fewer, lighter colored, paper skins than storage onions. Store onions in a cool, dry place that is well ventilated. Do not store whole onions in plastic and do not store in the refrigerator. Also avoid storing onions near garlic or potatoes. Cut or chopped onions can be stored in the refrigerator in sealed containers or ziptop bags for 2 to 3 days.



You may want to try other vegetables and herbs that contain the same disease fighting compounds as onions and garlic. These include scallions or young green onions; red onions, which have a sweeter flavor than yellow onions and additional disease-fighting phytochemicals; shallots (shah – lots or shal – lets), which look like small onions with more concentrated flavor; leeks, which look like overgrown scallions with a milder, sweeter taste; and chives, a herb that gives foods a mild onion flavor (often served with baked potatoes).

Garlic Pills

Fresh, uncooked, garlic will give you the most health benefits. But, it has been said that the more garlic you eat, the less friends you have. This is a very common reason people give for not wanting to eat garlic very often. What is a person to do? Let's talk about one idea - garlic pills.

If you choose to take a garlic pill, choose one that is a garlic powder, rather than garlic oil. The oil does not have the disease-fighting part of garlic. Also, choose a pill that is enteric coated. The enteric coating protects the pill from the acid in your stomach.

Even if you take a pill, follow the rules and do not take too many pills. Pills can make blood too thin just like fresh garlic. Read the label to find out how many cloves of garlic each pill equals.

Questions about garlic pills:

1. What about chopped garlic added to oils? If the garlic is fresh when it is added to the oil and then is not heated after the garlic is added, it will be helpful to your health.
2. Do you know if garlic powder has any health benefits? Yes, garlic powder is beneficial as well. Look at your garlic powder bottle for the amount that equals 1 garlic glove (typically ¼ to ½ teaspoon).
3. Do you know if garlic gelcaps are absorbed properly and effective? Most gelcaps contain garlic oil, which would be less effective than fresh garlic, a garlic supplement, or garlic powder.

Cooking Tips

The way garlic is cooked affects its power to fight disease. Heat from cooking stops the release of the disease fighting parts of garlic. As little time as 30 seconds of microwave cooking, or 20 minutes of oven cooking has a big effect. But, there is something you can do.

Crush or chop garlic cloves and let them sit for about 10 minutes at room temperature before cooking. This allows time for the disease-fighting compounds to be released before they are heated. Also, try to cook garlic and onions for only short amounts of time.



For best results when cooking or sautéing garlic and onions (and/or with other vegetables) for recipes, add the garlic after the onions (or other vegetables) have begun to soften. This allows the garlic to cook for less time and helps prevent it from burning and developing an off-flavor. (*Show handout, “Take Care to Prepare” as a reminder for pre-preparation of garlic and give handouts of recipes using garlic and onions.*)

Staying healthy and fit with garlic and onions

Be sure to add onions and garlic to your meals each day. Try some of these suggestions:

1. Include chopped onions and garlic in veggie stir-fry.
2. Simmer peeled garlic cloves (cut in half) in soups and stews.
3. Add peeled garlic cloves to simmering potatoes when making mashed potatoes. Mash garlic with potatoes to make garlic mashed potatoes.
4. Include a mixture of garlic and onions in soup, stew and casserole dishes.
5. Add quartered onions to roasted vegetable recipes.
6. Sprinkle garlic powder over cooked vegetables or on green salads.
7. Add onion slices to sandwiches or salads.
8. Try French onion soup for a warm meal.
9. Add mashed garlic to your favorite salad vinaigrette and let steep to add flavor.

Activity

Okay, let's review before we try a tasty recipe.

1. How many servings of fruits and vegetables do you need to eat daily? *At least 5 a day.*
2. What can eating garlic and onions do for you? *Help you stay healthy and fit – reduce risk of heart attack, stroke, lower cholesterol, reduce inflammation, reduce risk of cancer, etc.*

Tongue Twister - Show handout, “Remember Onions With This Catchy Phrase.” Let the group practice saying the tongue twister. Provide a prize to all participants who can say it without twisting their tongues. (A clove of garlic would make a great prize.)

Prepare one recipe in advance for participants to taste test or choose one recipe to demonstrate in front of the participants for taste testing.

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The Food Stamp Program provides nutrition assistance to people with low income. It can help buy nutritious foods for a better diet. To find out more, contact your local food stamp office, food bank, or senior center.



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Avocado Salsa

1 medium avocado	½ tsp ground cumin
1 large, ripe tomato	½ tsp ground black pepper
¼ cup finely chopped red onion	½ tsp salt, optional
2 Tbsp fresh chopped cilantro, or 2 tsp dried cilantro	Juice of 1 large lime (about 2 – 3 Tbsp juice)
2 cloves garlic, minced	

1. Combine all ingredients in medium-mixing bowl. Stir well, but careful not to break up vegetable chunks.
2. Chill well before serving to allow flavors to blend. Serve with tortilla chips, cut vegetables or as a topping for salad or other vegetables. Makes 12 servings.

Nutrition Facts per serving

Total calories

Total fat

Total fiber

Serving size: about 2 Tbsp

30

2 g

2 g





Rice and Red Beans

1 Tbsp vegetable oil	3 stalks celery, sliced
1 medium onion, chopped	½ tsp dried oregano
2 cloves garlic, minced	1 can (15 oz) red beans, drained and rinsed
2 medium tomatoes, diced	Hot cooked brown rice ⁴
1 medium green pepper, chopped	

1. Heat oil in large skillet. Add onion and garlic and sauté until soft, careful not to overcook.
2. Add tomatoes, green pepper, celery and oregano to skillet. Cover and simmer until vegetables are crisp tender, about 8 to 10 minutes.
3. Add the beans and simmer until heated through, about 10 to 15 minutes. Stir occasionally while simmering.
4. Before serving, add salt and pepper to taste. Serve over hot cooked rice. Makes 8 servings.

Nutrition Facts per serving

Total calories

Total fat

Total fiber

Serving size: about 1 cup

210

3 g

7 g



<http://www.indianharvest.com>



Roasted Onions

4 medium yellow onions (or Vidalia® onions), halved crosswise
(cut in half between stem end and root end)

2 teaspoons olive oil or canola oil

Pinch of salt and ground pepper to taste

1. Place oven rack to lowest position and heat oven to 400 degrees.
2. Line a baking sheet with aluminum foil and rub with the 2 tsp oil.
3. Place onions on pan with cut side touching the foil. Place pan in heated oven and roast until onions are dark brown around the bottom edge and tender when pierced with a knife tip, about 30 minutes.
4. Remove pan from oven and let cool 5 minutes. Season with salt and pepper to taste, if desired, and serve. Makes 4 servings.

Nutrition Facts per serving

Serving size: 2 onion halves

Total calories

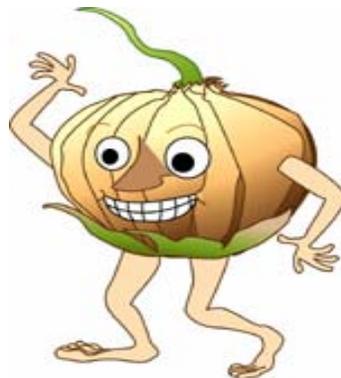
62

Total fat

4 g

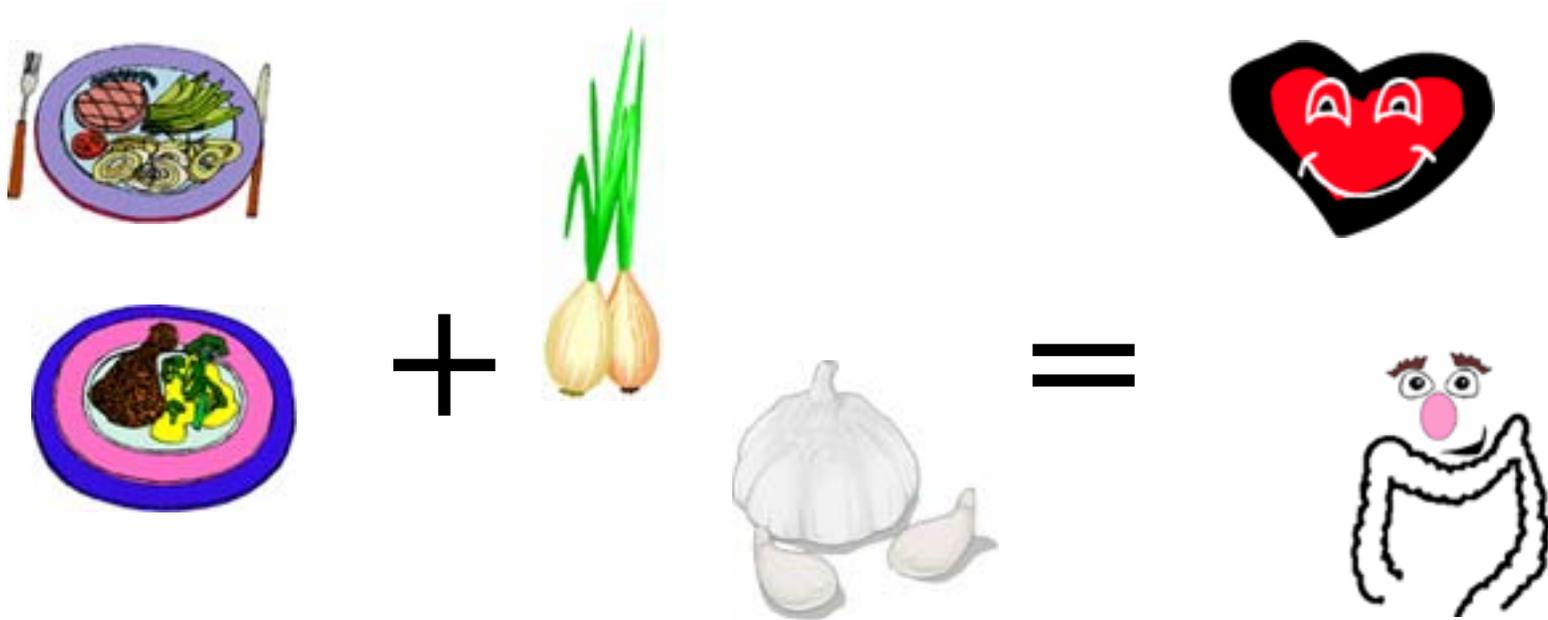
Total carbohydrate

9 g





Meals + Garlic and Onions = A Happy Heart and Tummy





Be Smart About Garlic and Medicines



If you are taking blood-thinners, aspirin, or other blood-thinning drugs or herbs ...



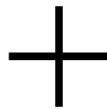
... and eating garlic ...



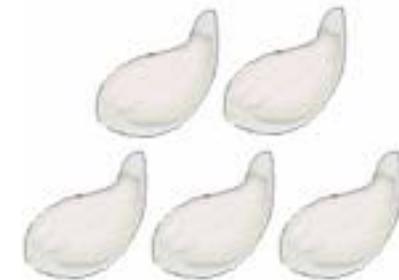
...limit garlic to 1 clove per day.



If you are NOT taking blood-thinners, aspirin, or other blood-thinning drugs or herbs ...



... and eating garlic ...



... eat 2 to 5 garlic cloves per day for good health.



Remember onions with this catchy phrase ...



If a noisy noise
annoys an onion,
an annoying noisy noise
annoys an onion more.



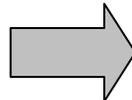


Take Care to Prepare

Chop and cut fresh garlic to get the most benefit.



1 Chop and cut garlic.



2 Let the garlic stand for about 10-15 minutes.



3 Serve up a delicious and nutritious dish.