

# How to Nourish With broccoli



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## Brought to you by Viva Vegetables

A Utah State University Extension and Nutrition and Food Sciences Department campaign

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The goal of the *How to Nourish With* lesson series is to provide adults and older children with helpful information and demonstrations about selecting, preparing, cooking with, and storing vegetables. This basic knowledge may encourage families to include vegetables more often as a mainstay of family meals and snacks.

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### Objectives:

1. Adults will explain a health benefit provided by broccoli.
2. Adults will explain how to select broccoli.
3. Adults will discuss cost and time effective strategies for incorporating broccoli into family meals.
4. Adults will discuss preparation and storage techniques of broccoli, including cleaning, trimming, cooking, and storing
5. Adults will make and taste food that includes broccoli.

**Total Time: ~1 hour**

### Materials

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- Pictures of three different kinds of broccoli at the end of the lesson:
  - Broccoli with non-firm stem
  - Broccoli with discolored florets
  - Ideal-looking broccoli
- Ingredients for food demonstration of Broccoli Salad (recipe attached)
- Enough small paper plates and plastic forks for a sample for each audience member
- Copy of Food Art Broccoli pictures (attached)

### Preparation Required

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- Cut up and portion out the correct amounts of each ingredient as listed in the recipe and place on trays that can be brought out for the food demonstration
- Review lesson plan
- Copy handout
- Get printouts of broccoli pictures listed in the materials section above

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## LESSON PLAN

### Introduction: Welcome

Time: 5 minutes

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- Welcome participants to the class and thank them for coming.
- Briefly introduce yourself and the program to the class.
- **Ask the class:** What do you think of or picture in your mind when you think of broccoli?
  - School lunch
  - Stinky
  - Green
  - Like cauliflower
  - Vegetable trays
- Show the audience the food art pictures. Tell them that this is what some people think of when they see broccoli
- Tell them that broccoli can taste just as good as it looks in these pictures.
- **Ask the class:** Does your family eat broccoli? Do they like it? Why or why not? Some answers may include:
  - It is delicious and crunchy.
  - Cooking it makes it stinky.
  - It tastes bitter.
  - It adds a nice “earthy” sort of flavor to dishes.
- Explain to the class that you may discuss some things today that will help them overcome any reasons that their family does not like to eat broccoli

*\*\*\*Objective 5 is being done here so that the food can chill while the class is being taught.\*\*\**

### Objective 5: Adults will make and taste something that includes broccoli (PART 1).

Activity: Food demonstration of Broccoli Salad

Time: 15 minutes

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- Prior to starting have all of the ingredients measured out and displayed on the counter.
- Tell the class that the broccoli is great in salads and that the food they will be trying today is a broccoli vegetable salad. Explain knife skills (steps below) and how best to cut broccoli while cutting up one cup of broccoli to be used in the recipe (the other 4 cups will be prepared ahead of time).
  - Point out that the top area of the broccoli is made of many pieces that are called the *florets*. The bottom, smooth part is called the *stem*.
  - Cut through the stalk rather than through the bulb or "floret". The florets will then separate naturally.
  - Follow the stem up from the base as it separates into smaller and smaller stems. Cut only the stems that connect to the top or bulbous "floret" part of the broccoli.
  - Cut the stems about an inch or so below where the florets start.
  - Carefully pull away the florets at the base of the stems. Each floret piece should be about the diameter of a quarter.
  - Cut off more stems until you get up to the remaining florets, and repeat.
  - Peel the bottom portion of the stem with a vegetable peeler to remove the thick outer layer.
  - Cut the stem into pieces about the size of a nickel. The stem pieces should be smaller than the floret pieces because they take longer to cook.
- Mix together the dressing while explaining the process.

- Mix all of the ingredients together and emphasize that the salad is best eaten after being chilled. Place the bowl of new broccoli salad into the refrigerator and tell the class they will get to try it at the end of the lesson.

**Objective 1: Adults will explain a health benefit provided by broccoli.**

**Activity: Question and Answer**

**Time: 8-10 minutes**

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- Ask the audience if they can name nutrients that broccoli might contain (it is not important which nutrients they come up with because the focus of this lesson is whole food, not individual nutrients).
- Focus on the functions and health benefits of calcium
  - **Ask the class:** What does calcium do for us?
    - Calcium is most well known for its role in maintaining healthy bones
    - Calcium is also involved in blood clotting, the expanding and narrowing of blood vessels, and secretion of hormones that regulate body function.
    - Calcium is also needed to send nerve impulses and contract muscles.
  - **Ask the class:** How many of you know someone who has had a hip fracture and the effect that had on their life?
    - Osteoporosis is a debilitating disease that often leads to hip fractures that can significantly limit activity levels and lead to a steady decline in health.
    - The building of strong bones now can help improve ability to function and quality of life in later years.

**Objective 2: Adults will understand how to select the best broccoli.**

**Activity: Comparison of broccoli**

**Time: 8-10 minutes**

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Ask for an audience volunteer and have them come up to the front of the room. Have displayed on a table three different stalks of broccoli in various stages of decay and age (green with non-firm stems, florets that are yellow and/or brown in color, and broccoli with bright green florets and firm stems) **or** have them examine the three picture provided at the end of the lesson:

- Ask the volunteer to pick out which set of broccoli they would select and ask them why
- **Ask the class:** What rules do you use for picking out broccoli?
- Emphasize the following points:
  - Broccoli florets should be firmly attached to stem and should break when bent in half rather than be rubbery and bendable.
  - Florets should be a bright to light green color; avoid yellow or brown colored florets and florets that have a mushy texture.
  - Florets should be tightly grouped together.

**Objective 3: Adults will understand cost- and time-effective strategies for incorporating broccoli into family meals**

**Activity: Class discussion**

**Time: 8-10 minutes**

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- **Ask the class:** Is there a difference between fresh and frozen broccoli in terms of nutrient content?
  - Generally speaking, fresh and frozen broccoli are pretty similar in nutrient content as broccoli chosen for freezing is picked at the height of its nutrition which is preserved by freezing it.

- The flower buds or florets are richer in beta-carotene than the stalks. Manufacturers typically cut off most of the stalk before packaging it, so frozen broccoli may contain 35% more beta-carotene by weight than fresh broccoli.
- However, freshly steamed broccoli has a crispier texture and more enhanced flavor
- Explain to the class that there are benefits to using both fresh and frozen broccoli, it just depends on what type of preparation, taste, and texture is desired.
  - Frozen broccoli should be prepared going directly from frozen to cooked. It should not be thawed prior to use. It is sometimes cheaper than fresh broccoli, but most often will just cut down on the time investment needed for preparation. It has a more mushy texture after preparation as well.
  - Raw broccoli must be cut but the texture is preserved. It has more uses because it can be consumed raw or cooked.
- **Ask the class:** What types of recipes do you like to use broccoli in? Why do you like these dishes? Other ideas for including broccoli are:
  - Add raw broccoli toward the beginning of preparation of cream of tuna/chicken on toast.
  - Raw broccoli is a great addition to any green or pasta salad.
  - Add steamed broccoli to any pasta dish, tastes great with fettucine and alfredo/marinara sauce.
  - To reduce waste and utilize the entire broccoli you can clean off leaves, etc. from the stalk and cut it into 1/8 – ¼ inch slices and cook them in a frying pan in a little olive oil over medium heat until they begin to soften. Use as a vegetable side dish.
  - Broccoli can easily be added raw to any omelet.
  - Mix broccoli in with soups or add to a potato bar.

***Objective 4: Adults will understand preparation and storage techniques of broccoli, including cleaning, trimming, cooking, and storing.***

**Activity: Class Discussion**

**Time: 8-10 minutes**

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Cleaning and trimming:

- Remind the class that cleaning and trimming broccoli is very easy (as it was discussed earlier in the lesson).

Cooking:

- **Ask the class:** What way(s) do you usually prepare broccoli?
  - Raw
  - Steamed
  - Microwaved
  - Boiled
  - Blanched
- Explain that steaming and blanching are the best methods to preserve the most flavor and nutrition.
  - Overcooking and boiling broccoli can dramatically change the color and texture of broccoli making it less appetizing. It also changes the taste making it more “sulfur-y.”
  - Steaming broccoli requires little preparation time and requires no extra ingredient – decreasing time and cost.
  - **Microwave:** This method preserves the most nutrients and is really easy. Put Broccoli in an inch of water in a microwave-safe dish. Cover tightly with lid or microwave safe plastic wrap and microwave 5 to 7 minutes (may vary depending on wattage of microwave).
  - **Steam:** This method preserves flavor, texture and nutrition. To steam:

- Bring 1 to 2 inches of water to a boil in a pan.
  - Arrange florets evenly in a steam basket (show picture included at the end of the lesson), making sure the water does not come into the bottom of the basket.
  - Cover the broccoli and steam. Between 3 to 4 minutes should be about right, but it depends on your steaming setup.
  - Steaming broccoli for too long will cause the florets to get soft which is one reason that many people don't like broccoli. It's always best to experiment first with one or two florets to determine the ideal steaming time.
- **Blanch:** Plunging fresh broccoli in boiling water for 60 seconds turns its florets into beautiful bright green, picture-perfect broccoli. It's a quick and easy step that will make all the difference in preserving firmness and flavor when you add the florets to your favorite dishes.

**Storage:**

- Store broccoli unwashed, in an open plastic bag and place in the crisper drawer of refrigerator. It is best if used within a day or two after purchasing.
- Broccoli can also be stored by freezing it. Peel the leaves from the stalk. Blanch the broccoli or steam for 5 minutes. Cool, and then place the broccoli in a sealed plastic bag.
- Broccoli can be stored in the freezer for up to 10 months.
- Fully cooked broccoli does not store well in the refrigerator, as it will break apart when reheated. If you want to store cooked broccoli, steam it until it is just tender and store in a plastic bag for 2 to 3 days.

**Objective 5: Adults will make and taste something that includes broccoli (PART 2).**

**Activity:** Food sample tasting

**Time:** 15 minutes

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- Pass out the food samples to the class participants.

**Conclusion: Summary and Regroup**

**Time:** 2 minutes

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As you are dishing out the broccoli salad samples remind the class of a few key points of the lesson.

- Broccoli has the great benefit of being one of the few vegetables high in calcium.
- When purchasing broccoli pick broccoli that has floret firmly attached to the stem and avoid yellow or brown colored florets
- Adding broccoli to common recipes does not cost very much but adds taste, texture, and nutrition.
- Steaming broccoli on the stove top or in the microwave takes little time.
- Broccoli taste great!

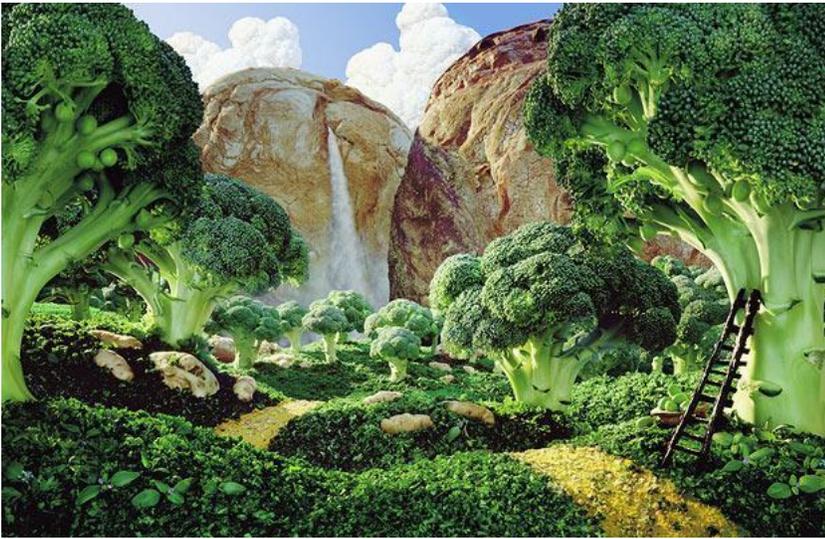
Challenge the audience to make one dish in the next week including broccoli.

**Ask the class:** What dish are you thinking of preparing sometime in the next week that will include broccoli?

**Steam Basket**



# Broccoli Art Pictures



# The Great Taste of Broccoli

## Broccoli Salad

### Ingredients:

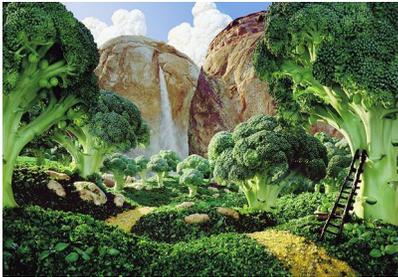
- 5 cups fresh broccoli florets
- 1/2 cup raisins
- 1/2 cup sunflower seeds
- 1/2 cup cooked, crumbled bacon
- 1/4 cup of red onion, chopped
- 1 cup of frozen peas, thawed

### Dressing:

- 1 cup mayonnaise
- 2 tablespoons vinegar
- 1/2 cup sugar

### Directions:

Combine broccoli florets, raisins, sunflower seeds, crumbled bacon, chopped onion, and peas in a large serving bowl. In a separate bowl or large cup, whisk together mayonnaise, vinegar and sugar. Add dressing to the salad and toss to mix well; chill thoroughly before serving.



### Other Great Broccoli Recipes

#### Broccoli Ramen

Salad <http://southernfood.about.com/od/broccolisaladrecipes/r/bl30628s.htm>

#### Broccoli Delight Rice Casserole

<http://southernfood.about.com/od/broccolicasserolerecipes/r/bl51023g.htm>

#### Easy Broccoli Quiche

<http://allrecipes.com/Recipe/Easy-Broccoli-Quiche/Detail.aspx>

## How to Steam Broccoli

### Preparation

1. Wash the broccoli thoroughly under cool running water.
2. Cut off the thickest portion of the stalks, removing the fibrous, woody bases.
3. Either chop the broccoli into bite-sized pieces or cut it into thin stalks with florets at the top so it looks like a group of small trees.

### Stovetop steaming

Use either a folding metal steaming basket, a hard pan-insert designed for steaming or a steaming basket made of wood. Make sure to use a pan that has a tightly fitting lid.

1. Fill the base of the pan with water level to the steamer, but does not rise up into the steamer.
2. Set the stove burner to high.
3. Once the water is boiling, place the broccoli loosely in the steamer and cover the pan.
4. Allow the broccoli to cook three to five minutes.
5. Remove the pan from the heat source and remove the lid once the broccoli to discontinue cooking.

### Microwave steaming

1. Place the cut or chopped broccoli into a microwave safe dish.
2. Add one to two tablespoons of water, depending on the amount of broccoli.
3. Cover the dish tightly, either with a lid or with microwave-safe plastic wrap.
4. For two cups of broccoli, cook on high for three to five minutes.
5. Remove the lid from the dish once the broccoli is done or it will continue to cook.

*Broccoli is done when it is still a little crisp, but the stalks cut easily. It should be a bright green. The best way to test broccoli for doneness is to taste it!*

## Broccoli Notes

### How to cut broccoli:



Rinse the head of broccoli before cutting it. Pat dry with a paper towel.



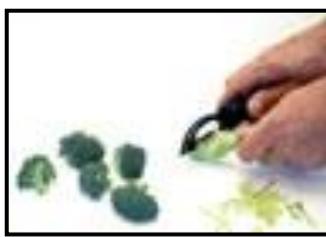
Select a small, sharp knife or pair of clean kitchen scissors.



Follow the stem up from the base as it separates into smaller and smaller stems. Cut only the stems that connect to the top or bulbous floret part of the broccoli.



Cut the stems about an inch or so below where the florets start. Carefully pull away the florets at the base of the stems. Each floret piece should be about the diameter of a quarter. Cut off more stems until you get to the remaining florets, and repeat.



Peel the bottom portion of the stem with a vegetable peeler to remove the thick outer layer. Cut the stem into pieces about the size of a nickel. The stem pieces should be smaller than the floret pieces because they take longer to cook.

## Three different types of broccoli:

Broccoli with non-firm stem



Broccoli with yellow or brown colored florets



Ideal broccoli that is bright green and firm

