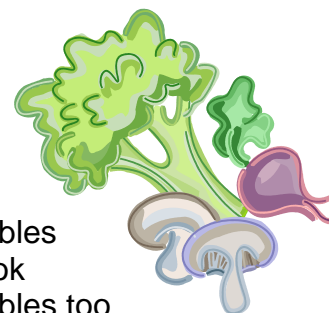


Versatile Vegetables



In these health-conscious times, vegetables are more than just side dishes. Because they are economical, we can use vegetables to prepare low-cost main dishes such as vegetable primavera, stuffed squash, or vegetable lasagna. In addition to their nutritional value, vegetables make meals more appealing in flavor, texture, and color. The key is to cook vegetables until the vegetable fibers are tender without making the vegetables too soft.

Nutritional Value of Vegetables

Health professionals recommend eating three to five servings of vegetables every day (www.mypyramid.com). A serving size is usually $\frac{1}{2}$ cup of cooked vegetables or 1 cup of raw vegetables. Vegetables provide important vitamins and minerals, such as vitamins A and C, riboflavin, folic acid, iron, and magnesium. Most vegetables are also good sources of fiber. They are naturally cholesterol-free and low in fat. But don't turn your naturally low-fat vegetables into high-calorie selections; try to limit the amount of butter or high-fat sauces you add.

Controlling Nutrient Loss

Most minerals and some vitamins dissolve in water. Soaking vegetables in water before cooking or cooking in large amounts of water, causes leaching of important vitamins and minerals. High temperatures, prolonged cooking, alkalis (such as baking soda or hard water), plant enzymes (which are usually destroyed by heat), and oxygen, all cause a loss of precious vitamins and minerals.

Controlling Flavor Changes

The longer a vegetable is cooked, the more flavor is lost, either through evaporation or by dissolving into the cooking liquid. You can prevent significant flavor loss by cooking as quickly as possible. Start with boiling water to reduce cooking time. Use as little water as possible to minimize

leaching of vitamins and minerals. Steaming vegetables and microwave cookery appear to be the best cooking method for minimal losses to occur.

Strong flavored vegetables, such as broccoli, Brussels sprouts, cabbage, cauliflower, onions, and turnips are much more appealing if some of their flavor is lost. Cooking strong-flavored vegetables uncovered, in larger amounts of water, allows off-flavors to escape.

Controlling Texture Changes

Cook vegetables until they become tender, which varies with each vegetable. Winter squash, eggplant, and similar vegetables are properly cooked when they turn soft, but most vegetables are best when cooked very briefly or until they are crisp-tender. At this stage, vegetables maintain their maximum flavor, color, and nutritional value.

Cellulose and pectin are the fibers that give vegetables their shape and firmness. Cooking softens these fibers. The amount of fiber varies with different vegetables, with the age of the vegetable, and even with the same vegetable. A longer cooking time means softer vegetables. Alkali, destroys vitamins and softens vegetables to the point of mush. Acids such as lemon juice, vinegar, tomato products, and sugar make vegetable fibers firmer.

Starch found in vegetables also affects texture. Moist starchy vegetables

such as potatoes and yams must be cooked to soften the starch granules.

Controlling Color Changes

Different pigments react differently during cooking. It is important to preserve as much of a vegetable's natural color as you can during cooking.



Green Vegetables

Chlorophyll is the pigment present in all green vegetables, such as asparagus, broccoli, green beans, peas, and spinach. Chlorophyll is destroyed by acids, such as lemon juice, vinegar, and baking soda. Prolonged cooking or overcooking causes bright green vegetables to turn a drab olive green. Steaming is the most preferred method for cooking because steam cooks food rapidly, lessens the loss of flavor and nutrients, and does not break up delicate vegetables.

Yellow and Orange Vegetables

Carotenoids are the yellow and orange pigments found in carrots, corn, sweet potatoes, tomatoes, and winter squash. These pigments are very stable to acids and heat, but loss of flavor, color and nutritional value occurs with overcooking.

Red Vegetables

Anthocyanins are the red pigments found only in a few vegetables, such as beets and red cabbage. These red pigments react very strongly to acids and alkalis. Acids make anthocyanins brighter red, and alkalis turn them a blue or blue-green color. A small amount of acid gives red beets and red cabbage a bright red color. This is why red cabbage is often cooked with tart apples. Because anthocyanins dissolve easily in water, cook these vegetables quickly in very little water.

White Vegetables

Flavones are the white pigments found in potatoes, onions, cauliflower, and the white parts of celery, cucumbers, and zucchini. Cook these vegetables for a short time to avoid loss of nutrients, flavor, and color. Overcooking and hard water turns white vegetables a dull yellow or gray.

Natural Colors

Food colors have been used for centuries to color foods to a more acceptable color or reduce natural variations found in a product. Many natural sources are approved for use in food. Green pasta is naturally green because it contains spinach; red pasta contains beet juice. To color your next batch of icing, try squeezing blueberries and using a little juice for blue and raspberry juice for pink. Almost all foods use food colors in some way. Check out the labels to see if the food manufacturers use natural or synthetic colors more. You may be surprised!



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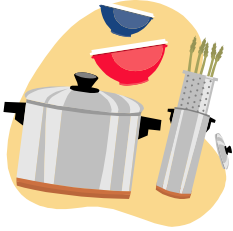
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Versatile Vegetables

Basic Cooking Methods

There are several cooking techniques that will help you prepare vegetables more healthfully, from baking and braising, to steaming and sautéing. These methods capture the flavor while retaining more nutrients and not adding excessive amounts of fat or salt. Once you've mastered these techniques, use them to prepare all your favorite **Super Star Chef** dishes. Being familiar with vegetable cookery guidelines will help you maintain color, texture, and nutrients.

-  Use as little liquid as possible, with the exception of strong-flavored vegetables.
-  Avoid peeling vegetables because many of the nutrients are just below the skin.
-  Cover yellow, orange, and red vegetables to hold in steam and heat and reduce cooking time. Do not cover green and white vegetables.
-  Cook vegetables as quickly as possible to soften fibers and retain color, flavor, and nutrients.
-  Cook vegetables until crisp-tender. Do not overcook.
-  Drain vegetables, but save the cooking water because it contains water-soluble vitamins. Use the water in soups, sauces, and gravies.
-  Use butter sparingly and at the end of the cooking cycle so fat-soluble vitamins stay with the vegetables.

Microwave Cookery

Vegetables cook quickly and easily in the microwave oven. Use dishes marked only for microwave use. Cut into pieces and add 2 tablespoons of water for most fresh vegetables. Cover and cook 4 to 15 minutes, depending on the density of the vegetable. Many cookbooks have a list of cooking times for microwaving vegetables. Potatoes, winter squash, and other hard-shelled vegetables must be vented with a fork or knife to allow excess steam to escape.

Baking

Potatoes, sweet potatoes, and winter squash, along with tomatoes, are delicious baked. The dry heat of the oven and long baking time produce a desirable texture in starchy vegetables. Baked vegetable casseroles may require a precook step.

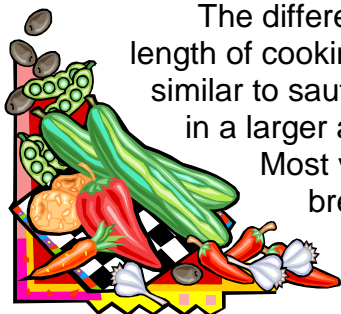
Braising

Braising of vegetables is a slow, moist-heat cooking method that uses a small amount of liquid. Braising can be done in the oven, on the range cook top, or in the crockpot. Many cookbooks include recipes using this method of cookery.

Simmering

Simmering is the most frequent method of cooking vegetables because it is easy and economical. The vegetables should be simmered because the agitation and high temperature of boiling breaks up delicate vegetables and destroys nutrients. Simmering can be used for fresh, frozen, dried, or dehydrated vegetables. To simmer fresh vegetables in a saucepan, bring the temperature of the water to a boil. Add the fresh vegetables and reduce to a simmer, characterized by small bubbles that slowly rise to the surface and break before they reach the surface. Leafy green vegetables require only the water that clings to the leaves. Cover other vegetables with water. Cover the pan with a lid, if appropriate. Cook vegetables until tender.

Sautéing or Pan-Frying



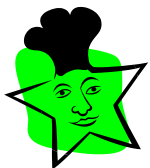
The differences between sautéing and frying are in the amount of fat used and the length of cooking time. To sauté is to cook quickly in a small amount of fat. Stir-frying is similar to sautéing and can be done in a regular pan or a stationary wok. Frying cooks in a larger amount of fat, usually 3 inches or more, for a longer time at a lower heat.

Most vegetables are fried from 325° to 350°F after being coated with a batter or breading. Without this coating, vegetables tend to dry out. Drain excess fat from deep-fried vegetables.

To sauté or stir-fry vegetables, heat enough oil to coat the bottom of the pan. Butter burns very quickly at high heat so if the flavor of butter is a must, use half olive oil and half butter. DO NOT leave any fat unattended. When fat is hot, add vegetables, being careful not to overload the pan because this will lower the fat temperature and the vegetables will simmer instead of sauté. Stir the vegetables as often as necessary to heat them evenly and coat them with the oil. The heat should have time to recover between stirring. Cook until fork tender.

Seasoning List

Experiment with small amounts of seasonings to find what your family will accept. Start with 1 teaspoon of mild herbs or spices, such as basil, cinnamon, cumin, lemon pepper, or oregano, for every six servings of fresh cooked vegetables. With strong herbs or spices, such as allspice, cloves, ginger, nutmeg, rosemary, and tarragon, start with ¼ teaspoon for every six servings. Basil, cayenne, chervil, dill, marjoram, mint, nutmeg, oregano, parsley, black pepper, poppy seeds, rosemary, sage, sesame seeds, tarragon, thyme, and turmeric are great to start with, when adding herbs or spices to fresh vegetables. For specific vegetables, try the following additions using the measurement guidelines above. Anise, caraway, fennel, ginger, or savory, add zest to beets. Anise, cinnamon, cloves, mint, sage, and tarragon bring out the natural flavor of carrots. Corn is different with allspice or chili powder. Dill or chives are refreshing with cucumbers. Add mint, parsley, sage, or savory to peas. Squash becomes sweeter with allspice, cinnamon, cloves, fennel, ginger, mace, nutmeg, or savory. Allspice, basil, marjoram, oregano, sage, savory, tarragon, or thyme compliment the flavor with tomatoes.



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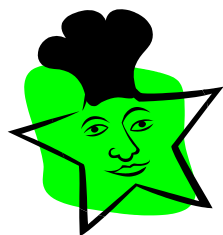
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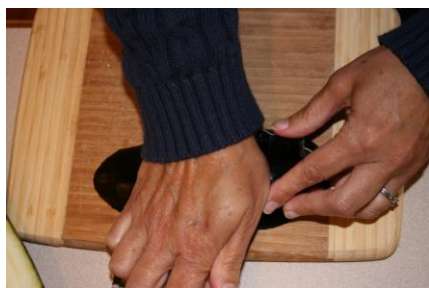


Versatile Vegetables Garnishes or Flowers

Many fruits and vegetables can be easily carved into a plate garnish or used as a fruit or vegetable flower. Always use caution when using knives. Pay close attention to what you are doing when carving garnishes. A break in concentration may increase the risk of cuts. As you practice, these garnishes will become easier and faster to make. Carrots, strawberries, potatoes, beets, turnips, and radishes provide a nice assortment of garnishes. Garnishing books can provide additional ideas to show off you **Super Star Chef** talents.

Vegetable Cut-Outs

Supplies needed: cucumber, hard-shelled squash, eggplant, carrot, cookie cutters, knife, toothpick, bamboo skewer, and green part of the green onion.



1. Slice a vegetable with skin, into ¼ inch thick slices.
2. Push a small cookie cutter with the palm of your hand into the vegetable cutting out the shape. Mini or theme cookie cutter shapes can be a conversation piece when used as garnishes.

3. Use a carrot slice attached with a toothpick for the center of the flower.



4. Insert the green part of a green onion to cover the bamboo skewer to make a flower stem.

Green Onion Mum

Supplies needed: large green onions, paring knife, food coloring, small dish, and water.



1. Cut the root end off a green onion. Using a paring knife cut thin slits into the root of the green onion. Turn over and repeat the slits. Separate the cuts to fan the flower out to resemble a mum.



2. Add a few drops of food coloring to a small bowl of cold water. Place the green onion in the bowl and allow the green onion to soak for about 15 minutes.

3. Insert the green onion mum into a skewer covered with the green part of a green onion or use as a plate garnish.



Radish Blossom

Supplies needed: radishes and paring knife.



1. Cut both ends off a radish. Hold the radish in your hand. While holding the radish with the stem end down, make a thin vertical cut down the side of the radish. Cut close to the bottom without cutting all the way through.

2. Continue making these petals all the way around the radish. Place in ice water and watch the radish blossom.

Radish Star



1. Hold the radish, with the stem end down. Make a V-cut into the top of the radish. Turn the radish one quarter turn and make another V-cut. Repeat until the top looks like a star.

2. Make a thin cut down the side of each of the star points being careful not to cut through to the bottom. Turn the radish one quarter turn and make another petal. Continue making petals around the radish.



Mushroom Garnishes

Supplies needed: button mushrooms and paring knife.



1. Hold a button mushroom in your hand. Place point of a paring knife in the center of the mushroom. Laying the blade flat on the top of the mushroom, gently push the blade into the mushroom, making a star shape in the center of the top of the mushroom. Continue all around the top.



2. To create a turned mushroom, place the mushroom in your hand. Place the paring knife at the center of the mushroom. While turning the mushroom, use the edge of the knife, to make a swooping slice from the center to the outside edge. Repeat all the way around the mushroom.



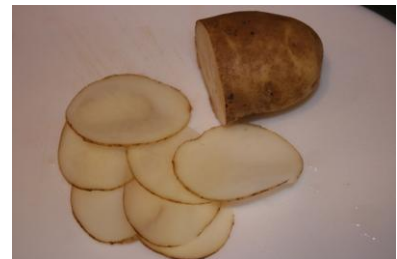
Potato, Beet or Sweet Potato Flower

Supplies needed: any round root vegetable, toothpicks, cutting board, and paring knife.

1. After cutting the end off of a root vegetable, begin making very thin slices. You will need several slices for each flower.



2. Roll the first slice overlapping the edges. Start a second slice and continue rolling around the outside of the first slice. Continue until you have the desired size of flower. Insert a toothpick through each layer of the vegetable slices to hold the shape of the flower.



Strawberry Fan

Supplies needed: large strawberries, cutting board, and paring knife.



Strawberries are an easy garnish for summer desserts. With a paring knife, make thin slices from the top of the strawberry to the bottom, without cutting through the stem. Continue making thin slices from one end to the other. Gently spread the strawberry apart creating a fan.



Strawberry Rosebud



Place a strawberry stem end down, on a flat surface. Using a paring knife, start a cut $\frac{1}{4}$ inch from the tip-end of the strawberry. Make a thin slice down each side of the strawberry, being careful not to cut all the way to the bottom. Gently use the knife to open the petals to resemble an opening rose.

Tomato Rose

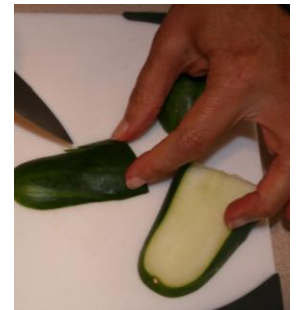
Supplies needed: round tomato, cutting board, and paring knife.

1. At the bottom of a tomato, peel the skin with a paring knife, so the peel is about $\frac{1}{2}$ to one inch wide, and remains a continuous strip. The thinner the peel and the less flesh attached, the more delicate and easier the tomato will be to form into a rose. If you accidentally cut through the peel, you can cover the break when it is rolled to make a rose.



2. With the flesh side up, starting with the last part of the peel cut, roll the peel to form a rose.

3. Set peel on plate and allow it to open. If needed, shape the peel. For added color, cut a leaf shape from the green peel of a cucumber and lay it under the rose.



Carrot Flower

Supplies needed: large carrot, vegetable peeler, and paring knife. **Note: Pay attention to your cuts as slippage is possible with this garnish. Always use safe knife handling skills.**

1. Cut both ends off a carrot and peel with a vegetable peeler. Holding the largest end facing you in your hand, make a V-cut at an angle towards the center of the carrot. Rotate the carrot and repeat on each side, making at least four V-cuts.



2. Remove the carrot flower from the carrot. If it doesn't come easily, cut each V-cut a little deeper, or twist the carrot until it comes free. Continue to make a variety of sizes. These flowers are great with dip, in a bouquet, or as a plate garnish. You may also steam and serve as a vegetable side dish.



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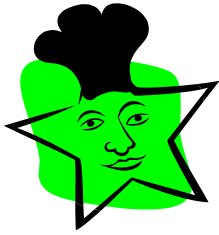
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Versatile Vegetables

Vegetable Flower Arrangement

It's easy to make vegetable flowers and then arrange them the same as you would a bouquet of flowers. You're limited only by your imagination.

Start with any heavy fruit or vegetable for a vase to provide sturdiness. Carve the vase ahead of time and store covered in the refrigerator for up to three days. Try butternut squash, eggplant, a cauliflower head, or any unripe melon. Buy wooden bamboo skewers, 4 to 12 inches in length and use the green part of the green onion to carefully cover the skewers for "flower" stems. These can attach to a wide variety of carved fruits or vegetables to complete your vase. Carrots, strawberries, potatoes, beets, turnips, and radishes provide a nice assortment of vegetable flowers. Choose firm vegetables that won't discolor during carving. Remember, use safe knife skills when carving.

1. For the vase, select a uniformly shaped butternut squash, eggplant, or other sturdy fruit or vegetable. Slice $\frac{1}{2}$ inch off the bottom so it will sit flat. Slice off the top evenly.



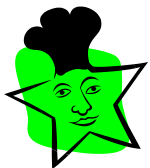
2. Use a cookie cutter to shape thin slices of turnips, carrots, or eggplant into a flower, fruit, vegetable, or theme shape. Use a toothpick to secure the flowers to the vase. Another option is to use a zester, paring knife, or melon baller to carve a design on the outside of the vase.



3. Cut off the bulb end of a green onion. Carefully slip the green part of the green onion over the skewer, leaving a small part of the wood visible to insert into a vegetable flower.

4. Leeks, carrot leaves, asparagus stalks, parsley, or carved cucumbers can be used to make leaves or foliage.

5. Insert about a dozen vegetable flowers into the top neck of the vase. Use an ice pick to poke holes into the vase if it is difficult to insert the skewers. Keep the angles of the skewers vertical but try to fan out alternating the heights. Make some high and some low. Remember if you are using larger flowers allow room between the skewers to accommodate the size of your flowers.



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