

Cooking Vegetables

Directions Vegetables that are cooked correctly have certain advantages. Read the article below about cooking vegetables. Then conduct the cooking experiment, analyze the results by answering the questions, and complete the Discovery activity.

Cooking vegetables by any method for too long tends to destroy water-soluble vitamins. The vegetables also lose flavor and become mushy and discolored. By following recommended cooking times, you maintain the maximum amount of nutrients and the best texture, usually tender-crisp. Green vegetables should typically cook no more than seven minutes. Some vegetables need more or less time, depending on size and use. Piercing with a fork can help you determine whether vegetables are done cooking.

Steaming is a favorite way to cook vegetables. To steam vegetables, you need a steamer basket and a saucepan with a cover. The water level in the saucepan should be just below the

steamer basket. Cover the pan and bring the water to a rapid boil. Put the vegetables in the basket, which sits or hangs inside the pan, and re-cover the pan. Reduce the heat to simmering. Set your timer for the recommended cooking time. Remove the vegetables from the saucepan as soon as they are done.

To cook vegetables by simmering them in liquid, put about one inch of water in the pan, cover, and bring to the boiling point. Add the vegetables, cover the pan, and reduce the heat to simmering. Remove the vegetables from the cooking liquid immediately after the recommended cooking time. A slotted spoon works well for this purpose.

Cooking Experiment

You will need six carrots, a paring knife, a slotted spoon, two covered saucepans, and one steamer basket. One of the saucepans should be large enough to hold the steamer basket.

Procedure

1. Pare and slice the carrots into $\frac{1}{2}$ -inch slices. Divide them into two equal portions.
2. Put water in each saucepan. In the saucepan with the steamer basket, the water level should be just below the basket. In the other, there should be about 1 inch of water.
3. Cover the saucepans and bring the water in both to a boil.
4. Put half of the carrot slices in the steamer basket of one saucepan and the remaining portion in the liquid of the other pan. (Be careful to keep your face and hands away from the hot steam.) Cover the saucepans. Reduce the heat to a simmer for both saucepans, and cook the carrots for 6 minutes.
5. Remove the carrots from each saucepan, reserving the cooking liquid in each for observation.

(Continued on next page)

CHAPTER 16: Guidelines for Healthy Eating (Continued)

Focus on *Science*

Analyzing Results

1. Compare each portion of carrots for color, texture, and flavor.

	Steamed	Simmered in Liquid
Color		
Texture		
Flavor		

2. Examine the cooking liquid in each saucepan. Which liquid changed color? If both changed, is the color the same? Describe the appearance of each.

3. What do you think caused any color change in the liquid? How might this affect the nutrient value of the vegetables?

4. Which cooking method would you recommend? Why?

5. What is another healthful way to cook vegetables?

Discovery

Another Experiment Create your own experiment to compare results when vegetables are simmered for two different lengths of time. Cook one sample for the recommended time and another sample twice as long.