

An Apple a Day: Foods that Might Keep the Doctor Away

Lesson objectives

- Identify plant foods that promote good health
- Critically analyze news reports about health benefits of plant foods
- Use food labels to make more nutritious choices when comparing similar foods
- Eat 5-a-Day (3 servings vegetables + 2 servings fruit)

Material for teacher

HE 3-897T An Apple a Day: Foods That Might Keep the Doctor Away — Teacher Guide

Materials for participants

HE 3-898 Participant Handout
HE 3-899 Lesson Evaluation

Note to teachers

This lesson is based on research findings. Please don't supplement it with personal testimonials or information from other sources.

Before the lesson

✓ Look for an example of an FDA-approved health claim on the label of a plant food (such as breakfast cereal).

✓ Prepare a tofu tasting experience to encourage group members to add tofu to their diets:

- Check tofu availability and location in local grocery stores (in produce, dairy, or deli section).
- Purchase packaged tofu to show members.
 - Buy soy beverages (such as chocolate "soy milk") for participants to have small tastes.

✓ Ask participants to prepare one or more of the recipes using broccoli and/or cabbage.

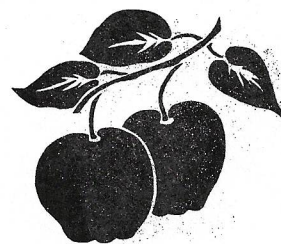
After the lesson

Ask the participants to complete the Lesson Evaluation (HE 3-899). Collect and return these to the county Extension office.

Teacher instructions:

Italicized type indicates teaching instructions.

Bold face indicates summary statements.



Introduction

Will “an apple a day keep the doctor away”? That old adage may have some truth in it. We’re hearing about the protective effects of certain fruits, vegetables, legumes, and whole grains. Researchers are suggesting that these plant foods may help to ward off chronic illnesses such as heart disease and cancer.

Research about the health benefits of some plant foods is still preliminary. In other cases, however, there’s enough evidence to support dietary recommendations.

Health claims on food labels

The Food and Drug Administration now allows food manufacturers to make specific claims about the health benefits of certain foods on labels. There must be “significant scientific agreement” that the food can help to prevent a specific chronic disease.

Claims that fiber-containing fruits, vegetables, and grains may protect against cancer and coronary heart disease can be listed if the food has a specific nutrient profile:

- 1) It must not contain more than specific amounts of total fat, cholesterol, and sodium.
- 2) It must contain at least 10% of the Daily Value (the amount needed in an average day) of at least one of these nutrients: protein, fiber, vitamin A, vitamin C, calcium, and iron.
- 3) It must have the specific minimum amount of nutrients that are designated for the health claim.

Claims must be worded in a certain way. For example, this health claim has been on the labels of some oat breakfast cereals:

“Diets low in saturated fat and cholesterol that include soluble fiber from (name of whole oat source) may reduce the risk of heart disease.”

Folate, a B vitamin, recently was added to the list of allowable health claims because of its beneficial effects in preventing neural tube defects during pregnancy. Research is suggesting that it also may help to reduce blood homocysteine levels, which are linked to coronary heart disease. Legumes and some vegetables and fruits are good sources of folate, as are fortified cereals.

Fruits, vegetables, legumes, and grains may help to ward off chronic illnesses.

Food manufacturers are allowed to make certain health claims on labels if there is “significant scientific agreement” that the food can help to prevent a specific chronic disease.

Claims that fiber-containing fruits, vegetables, and grains may protect against cancer and heart disease can be listed if the food has a specific nutrient profile.

Claims must be worded in a certain way.

Show an example of a health claim on a label such as breakfast cereal.

Folate, a B vitamin, recently was added to the list of allowable health claims because of its beneficial effects in preventing neural tube defects during pregnancy.

Health-protective plant foods

The benefits of health-protective plant foods often are linked to the *antioxidants* and other *phytochemicals* that they contain. Although there is not yet enough research evidence to make health claims about benefits of antioxidants and phytochemicals on labels, many studies are in progress.

Antioxidants help to protect body cells from damage caused by compounds that form as our bodies use oxygen. Vitamins C, E, and beta carotene are antioxidants. So are flavonoids and other phytochemicals.

Phytochemicals are chemicals found in plants. ("Phyto" is the Greek word for plant.) Our bodies use them to fight chronic disease. A single fruit or vegetable could contain hundreds of phytochemicals.

The National Cancer Institute has been studying the anti-cancer potential of plant foods. They report that several vegetables, fruits, and herbs can help to prevent cancer (especially cancer of the lung, cervix, esophagus, stomach, colon, and pancreas). These include garlic, soybeans, cabbage, ginger, licorice, carrots, celery, cilantro, parsley, and parsnips.

Researchers have identified many substances in these foods that provide protection against cancer. These include isoflavones in soybeans and allyl sulfides in garlic.

Some phytochemicals have been shown to reduce cardiovascular risk as well. Soy, garlic, green tea, and the bran and germ of whole grains are examples of foods with phytochemicals. Flavonoids, a type of phytochemical found in fruits, vegetables, and grains (such as kale, broccoli, red grapes, cereals, and onions) also can be protective.

Analyzing news reports about research findings

Although new research results about health-protective plant foods sometimes are reported in the news, it's wise to wait until findings have been confirmed by other researchers before making major changes in your diet.

Be "science literate" when you interpret research reports. You'll need to know what type of research was conducted. There are two basic types: observational and experimental.

The benefits of health-protective plant foods often are linked to the antioxidants and other phytochemicals they contain.

Antioxidants help to protect body cells from damage. Vitamins C, E, and beta carotene are examples.

Phytochemicals are chemicals found in plants.

Several vegetables, fruits, and herbs can help to prevent cancer.

Phytochemicals also can reduce cardiovascular risk.

It's wise to wait until research findings about health-protective plant foods are reported by more than one researcher.

Be science literate when you interpret research reports. There are two kinds of research: observational and experimental.

Observational research examines people as they go about their everyday lives (usually by surveying them). Results identify factors that are related to the incidence of an illness or health condition. For example, people with coronary heart disease might be found to have a low antioxidant intake.

Observational research can only suggest relationships. "Contributes to," "is linked to," or "is associated with" does not mean "causes." Controlled experimental research is needed to show cause and effect.

In **experimental research**, subjects with specific characteristics (such as age, gender, and health status) are selected to participate in the study. They're randomly assigned to one of two groups. One group receives the treatment (such as a diet rich in soy products) and the other (the control group) doesn't. The results (such as incidence of heart disease risk factors) are compared. Any differences between the experimental and control group are considered to be caused by the treatment.

Although it's difficult for non-scientists to critically evaluate research reports, there are clues that help. Several questions should be considered when you read or hear about research findings in the news.

Grape juice activity answers:

A critical analysis of the news report about health benefits of grape juice reveals that more information is needed before making a change in your diet.

- Has the study been published in a reputable journal?
The study apparently had not yet been published in a journal. It was presented at a professional meeting, however.
- Was it an observational or an experimental study?
The research appears to have been an experimental study where human subjects consumed juices.
- How similar are participants in the study to you?
The article doesn't describe the subjects, so there's no way to tell who might benefit from drinking grape juice.

Observational research suggests relationships. Experimental research shows cause and effect.

Four questions can help you evaluate research reports. (*Refer participants to their handout, HE 3-898.*)

Activity: Ask participants to critically analyze the news report about health benefits of grape juice. Share answers to the questions and the "rest of the story."

- Have the findings been confirmed by other researchers?

This appears to be a single study. Until the findings are verified by others, they should be considered preliminary.

The “rest of the story” ...

The article was based on a University of Wisconsin news release which provided some additional information:

Subjects were healthy human volunteers who weren't on medications and didn't have heart disease.

The researcher attributed the beneficial effects of grape juice to flavonoids, a type of phytochemical. He was quoted as saying that his findings added to the scientific body of evidence on the benefits of flavonoids. However, he stressed that they were preliminary.

He cautioned that people should discuss the implications of his work with their cardiologist or primary care physician. He also emphasized that there is no substitute for eating a healthy diet and exercising regularly.

Never change the way you eat based on the findings of only one study. This additional information shows that there's not enough research evidence to consider grape juice a “miracle food.” It would be a healthy choice in a varied diet, however.

Planning your diet

Consumer interest in dietary products that heal or improve health is increasing. American Demographics magazine reported that 55% of consumers are eating more broccoli and 53% are consuming more oranges/orange juice because they believe that these foods reduce the risk of disease.

In a 1997 Food Marketing Institute survey, 78% of food shoppers reported eating more fruits and vegetables to ensure that their diets were healthy. Many people still are not eating enough plant products, however. According to a U.S. Department of Agriculture survey, less than half of women over 50 eat the recommended number of servings of vegetables; fewer eat enough fruit.

Never change the way you eat based on the findings of only one study.

Consumer interest in dietary products that heal or improve health is increasing.

Many women are not eating enough fruits and vegetables.

The 5-a-Day campaign promotes consumption of 3 servings of vegetables and 2 servings of fruit every day.

The national 5-a-Day campaign is promoting consumption of at least 3 servings of vegetables and 2 servings of fruit every day. These will provide the vitamin C and beta carotene needed for good health.

A USDA survey revealed that orange and grapefruit juice are the most common sources of vitamin C in adults' diets; carrots are the most common source of beta carotene. However, there are many other sources of these antioxidant vitamins. Adding variety to your diet increases the chance of getting all the nutrients that you need.

Food labeling activity answers.

1) C 2) A 3) B 4) B

5) A, B, or C. **Explanation:** Any of the foods could be a healthy choice, depending on how the food fits into the overall diet for the day. Choose foods the rest of the day that provide other needed nutrients.

The identities of the 3 foods are:

A) broccoli, B) bean salad, and C) apricots.

Many health-protective plant foods are grown on Oregon farms. Some are available fresh. Others are processed for year-round use.

To maximize the health benefits, handle raw fruits and vegetables safely. Wash them thoroughly in a container of clean water. When possible, scrub them with a vegetable brush. Separate leaves of leafy greens for washing.

Keep tofu safe by keeping it cold.

What about supplements?

If a little is good, is a lot better? Some people are turning to supplements as a source of antioxidants and phytochemicals. The whole food is a better choice because it will provide a wide range of protective nutrients. For example, there are several types of carotenes. Researchers still are identifying which are beneficial. By eating tomatoes, you'll get the full spectrum as well as dietary fiber, which isn't available in a pill.

Activity: Talk about ways to increase antioxidants and phytochemicals in your diet. (See suggestions in the participant handout, HE 3-898.)

Activity: Have participants complete the food labeling activity to compare health-protective nutrients. Allow 2-3 minutes for each person to complete the activity.

Discuss Question 5 and ask the group to identify the foods labeled A, B, and C.

Many health-protective plant foods are grown in Oregon.

Point out the Oregon's Healthy Harvest tips on selecting/preparing broccoli and cabbage in the participant handout. Taste the recipes.

To maximize health benefits, handle raw fruits and vegetables safely.

Point out the tofu fact sheet and recipes in the participant handout. Show tofu and have participants taste test.

Food is a better source of antioxidants and phytochemicals than supplements because it provides a wide range of protective nutrients.

The benefits of regular and long-term use of antioxidant supplements are far from conclusive. Large scale studies are needed. We don't yet know whether taking pills with large amounts of antioxidants or phytochemicals is safe.

The best source of antioxidants and phytochemicals needed for good health is a diet rich in fruits, vegetables, and whole grain products.

We don't know whether taking pills with large amounts of antioxidants and phytochemicals is safe.

The best source of antioxidants and phytochemicals is a diet rich in fruits, vegetables, and whole grains.

Ask participants to complete the Lesson Evaluation (HE 3-899).

Selected References:

American Institute for Cancer Research. "Taking a Closer Look at Phytochemicals." Undated.

American Institute for Cancer Research. "Taking a Closer Look at Antioxidants," 1994.

Cao, Gouhua; Sofic, Emin; and Prior, Ronald. Antioxidant capacity of tea and common vegetables. *Journal of Agricultural and Food Chemistry* 44:3426-3431, 1996.

Craig, Winston. Phytochemicals: Guardians of our health. *Journal of the American Dietetic Association*, 97:S199-S204, 1997.

Indiana Soybean Board. "U.S. 1998 Soyfoods Directory."

Schardt, David. "Phytochemicals: Plants against cancer." *Nutrition Action Health Letter*. 21(3):1, 9-11, 1994.

Developed by Carolyn Raab, Extension foods and nutrition specialist; Marjorie Braker, Extension agent, Clackamas County; and Lorraine Works, Extension volunteer, Clackamas County, Oregon State University.



© 1998 Oregon State University. This publication may be photocopied or reprinted in its entirety for noncommercial purposes. Produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials—without regard to race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status—as required by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. Oregon State University Extension Service is an Equal Opportunity Employer.



An Apple a Day: Foods that Might Keep the Doctor Away

Will “an apple a day keep the doctor away”? That old adage may have some truth in it. We're hearing about the protective effects of certain fruits, vegetables, legumes, and whole grains. Researchers are suggesting that these plant foods may help to ward off chronic illnesses such as heart disease and cancer.

Research about the health benefits of some plant foods is still preliminary. In other cases, however, there's enough evidence to support connections between diet and health.

Health claims on food labels

The Food and Drug Administration now allows food manufacturers to make health claims on the labels of some products. For each of the following, there is significant scientific agreement that the food can help to prevent a specific chronic disease:

Claims that fiber-containing fruits, vegetables, and grains may protect against cancer and coronary heart disease can be listed if the food fits a specific nutrient profile that restricts fat, cholesterol, and sodium and mandates a minimum amount of nutrients needed for good health.

Health claims must be worded in a certain way. For example, this claim could appear on some breakfast cereals made from oats:

“Diets low in saturated fat and cholesterol that include soluble fiber from (name of whole oat source) may reduce the risk of heart disease.”

Health-protective plant foods

The benefits of health-protective plant foods often are linked to the antioxidants and other phytochemicals they contain. Although there is not enough research evidence to make health claims about benefits of antioxidants and phytochemicals on labels, many studies are in progress.

Antioxidants help to protect body cells from damage caused by compounds that form as our bodies use oxygen. Vitamins C, E, and beta carotene are antioxidants. So are flavonoids and some other phytochemicals.

Phytochemicals are chemicals found in plants. (“Phyto” is the Greek word for plant.) Our bodies use them to fight chronic disease. A single fruit or vegetable could contain hundreds of phytochemicals.

Research has shown that fruits and vegetables provide significant protection against cancers that involve epithelial cells (lung, cervix, esophagus, stomach, colon, and pancreas).

The National Cancer Institute has been studying the anti-cancer potential of plant foods. They report that foods and herbs with the greatest anti-cancer activity include:

Garlic, soybeans, cabbage, ginger, licorice, and umbelliferous vegetables (including carrots, celery, cilantro, parsley, and parsnips)

Researchers have identified many substances in these foods that provide protection against cancer. These include isoflavones in soybeans and allyl sulfides in garlic.

Some phytochemicals have been shown to reduce cardiovascular risk as well. Soy, garlic, green tea, and the bran and germ of whole grains are examples of foods with phytochemicals. Flavonoids found in a variety of fruits, vegetables, grains (such as kale, broccoli, red grapes, cereals, and onions), and nuts also can be protective.

Analyzing news reports about research findings

Although new research findings about health-protective plant foods are sometimes in the news, it's wise to wait until findings have been confirmed by other researchers before making major changes in your diet. Be "science literate" when you interpret research reports about health benefits of plant foods.

Although it's difficult for non-scientists to critically evaluate research reports, there are clues that help. Consider these questions when you read or hear about research findings in the news:

- Has the study been published in a reputable journal?
That means that other professionals have peer-reviewed the methods and findings. The Lancet, the New England Journal of Medicine, and the JAMA (Journal of the American Medical Association) are examples.
- Was it an observational or experimental study?
Observational research suggests relationships between diet and health; experimental research shows cause and effect. Experimental studies that give a treatment to a large group of people for a long time may be the best research design (such as the Physicians Health Study, which tracked 20,000 physicians for more than a decade to examine the role of aspirin in preventing heart attacks and beta-carotene's ability to prevent cancer).
- How similar to you are participants in the study?
The research findings apply only to people who are similar to those who were studied. For example, if the subjects in the study were all men and you are a woman, then it's harder to apply the results to yourself. Animal studies suggest answers that may need to be confirmed with human studies.
- Have the findings been confirmed by other researchers?
Review articles occasionally summarize findings from several studies. Sometime results of studies are contradictory.

Planning your diet

The national 5-a-Day campaign is promoting consumption of at least 3 servings of vegetables and 2 servings of fruit every day.

1 serving of fruit is: 1 medium piece of fresh fruit
½ cup chopped, cooked, or canned fruit
¾ cup fruit juice

1 serving of vegetables is: 1 cup of raw leafy vegetables
½ cup of other vegetables, cooked or chopped raw
¾ cup vegetable juice

Soybeans and other legumes contribute to our requirement for foods from the meat group of the Food Guide Pyramid.

There are many ways to increase antioxidant vitamins and phytochemicals in your diet:

Eat a variety of vegetables.

Don't forget broccoli, cabbage, carrots, kale, Brussels sprouts, cauliflower, winter squash, tomatoes, spinach, and green peppers.

Eat more fruit.

Add some apples, peaches, cantaloupe, strawberries, kiwi, and apricots.

Don't forget herbs and spices.

Garlic and hot peppers can add some spice to meals.

Try some soy.

Tofu, soy milk, and tempeh are possibilities.

Many health-protective plant foods are grown on Oregon farms. Some are available fresh. Others are processed for year-round use.

To maximize the health benefits, handle raw fruits and vegetables safely. Wash them thoroughly in a container of clean water. When possible, scrub them with a vegetable brush. Separate leaves of leafy greens for washing.

Handle tofu safely, too. It's most commonly sold in water-filled tubs, vacuum packs, or in aseptic brick packages. Unless it is aseptically packaged, tofu should be kept cold. As with any perishable food, check the expiration date on the package. Once the package is open, leftover tofu should be rinsed and covered with fresh water for storage. Change the water daily to keep it fresh and use the tofu within a week.

What about supplements?

If a little is good, is a lot better? Some people are turning to supplements as a source of antioxidants and phytochemicals. The whole food is a better choice because it will provide a wide range of protective nutrients. For example, there are several types of carotenes. Researchers still are identifying which are beneficial. By eating tomatoes, you'll get the full spectrum as well as dietary fiber, which isn't available in a pill.

The benefits of regular and long-term use of antioxidant supplements are far from conclusive. Large-scale studies are needed. We don't yet know whether taking pills with large amounts of antioxidants or phytochemicals is safe.

The best sources of antioxidants and phytochemicals needed for good health are fruits, vegetables, and whole-grain products.

Developed by Carolyn Raab, Extension foods and nutrition specialist; Marjorie Braker, Extension agent, Clackamas County; and Lorraine Works, Extension volunteer, Clackamas County, Oregon State University.



© 1998 Oregon State University. This publication may be photocopied or reprinted in its entirety for noncommercial purposes. Produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials—without regard to race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status—as required by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. Oregon State University Extension Service is an Equal Opportunity Employer.



An Apple A Day – Food Label Activity

Nutrition Facts	
Serving Size (53g)	
Servings Per Container	
Amount Per Serving	
Calories 15	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 15mg	1%
Total Carbohydrate 3g	1%
Dietary Fiber 1g	6%
Sugars 1g	
Protein 1g	
Vitamin A 4%	Vitamin C 35%
Calcium 2%	Iron 2%

A

Nutrition Facts	
Serving Size (127g)	
Servings Per Container	
Amount Per Serving	
Calories 80	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 670mg	28%
Total Carbohydrate 20g	7%
Dietary Fiber 4g	16%
Sugars 0g	
Protein 4g	
Vitamin A 10%	Vitamin C 2%
Calcium 4%	Iron 4%

B

Nutrition Facts	
Serving Size (129g)	
Servings Per Container	
Amount Per Serving	
Calories 110	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 5mg	0%
Total Carbohydrate 28g	9%
Dietary Fiber 2g	8%
Sugars 26g	
Protein 1g	
Vitamin A 30%	Vitamin C 6%
Calcium 2%	Iron 2%

C

Each of the food labels above lists the nutrients found in a ½ cup serving of food. Review labels A, B, and C and answer questions 1 – 5 below. Circle your answer: A, B or C.

1. Which food is the best source of Vitamin A?	A B C
2. Which food is the best source of Vitamin C??	A B C
3. Which food has the most dietary fiber?	A B C
4. Which food has the most sodium?	A B C
5. Based on the Nutrition Facts Label information, which food would you choose? Please explain why:	A B C

Guess the identity of each food by matching the letter A, B or C from the food labels above to each food listed below:

- ___ Broccoli, frozen
- ___ Bean salad, canned deli style
- ___ Apricots, canned in heavy syrup

Grape juice proves tasty way to prevent heart attacks

ANAHEIM, Calif. — Toasting the day with a glass of red grape juice may be an especially good start for the heart.

A study found that 8 or 10 ounces a day has a potent effect on the blood cells called platelets, making them less likely to form clots. And clots can lead to heart attacks.

In fact, red grape juice might be even more potent than aspirin, which is widely recommended as a way of warding off heart attacks.

The researchers compared grape with orange and grapefruit juice. It came to the conclusion that grape juice is better, at least for the heart.

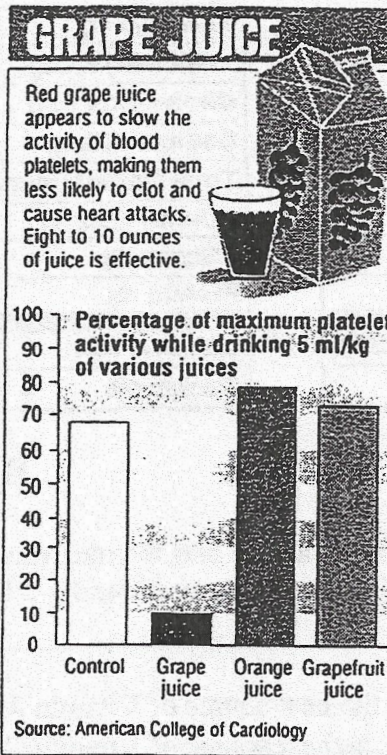
"I would prefer to drink red grape juice to citrus fruits because I think there is an extra benefit," said Dr. John D. Folts of the University of Wisconsin Medical School.

Folts' research has been funded for several years by the Nutricia Research Foundation of the Netherlands and the Oscar Rennebohm Foundation of Madison, Wis., and more recently by Welch's, which makes grape juice.

Folts noted that 10 companies make red grape juice in the United States, and all probably work equally well. Red juice appears to be more effective than white.

Folts presented his latest findings Tuesday at a conference of the American College of Cardiology.

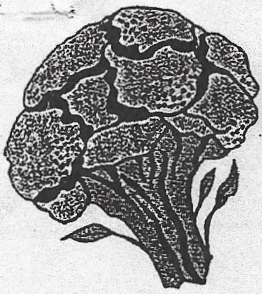
Experimenting on 17 volunteers — himself included — Folts found that both aspirin and red wine slow the activity of blood platelets by about 45 percent, while red grape juice dampens them by about 75 percent.



THE OREGONIAN, WEDNESDAY, MARCH 19, 1997

Questions to consider:

- Has the study been published in a reputable journal?
- Was it an observational or experimental study?
- How similar are the participants to you?
- Have the findings been confirmed by other researchers?



Broccoli



Oregon's Healthy Harvest

★ A Nutritional Superstar that protects your health ★

Buying/Storing

Purchase only the amount you will use within 1 week.
Buy broccoli with firm stems and tightly closed, deep green buds.
Refrigerate unwashed broccoli in an airtight plastic bag for up to 1 week. If wet, it will spoil rapidly.

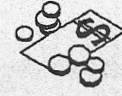
Food Safety

Wash broccoli thoroughly in a pan of cool, clean water.
Refrigerate leftovers promptly.



Time Saver

Immediately after cooking, plunge broccoli in ice water until cold. Drain. Refrigerate and use later in cold dishes or quickly reheat in hot water or microwave.



Money Saver

Peel the tender stems, slice thin and cook along with tops. Stems can also be sliced in strips and added to a relish tray or used in soup stock.



Snack Attack

★ Keep washed and sliced carrots, broccoli, zucchini, cauliflower, radishes, and cucumbers in the refrigerator. A low calorie salad dressing makes a quick dip.
★ For a quick veggie sandwich, top a slice of crusty bread with cream cheese and chopped broccoli, zucchini, carrots and tomato.



Kids' Corner

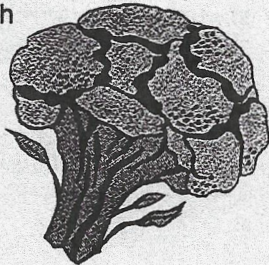
Broccoli & Cheese Roll Ups

- 1 Cut the crusts off some slices of bread with a plastic knife. Flatten the bread with your hand or a rolling pin. Place a half slice of cheese down the center of the bread and top with cooked broccoli.
- 2 Roll the bread up into a log and place the seam side down on a baking sheet. Bake at 350° until the cheese melts, (about 8 minutes). Cool and cut into rounds.

Sally Italian Pasta Salad

- 4 cups cooked pasta
- 2 cups blanched broccoli pieces
- 1 cup cooked carrot slices
- ½ cup red pepper strips
- ¼ cup sliced green onions
- ½ to ¾ cup Italian style salad dressing

- 1 Mix all ingredients together and refrigerate for about 30 minutes before serving.
- For a more hearty salad, add strips of cooked ham or salami, a can of cooked red beans or sprinkle with grated cheese.
- Serves 6 to 8.



Lar Fresh Vegetable Medley

- 2 cups fresh broccoli pieces
- 2 cups fresh cauliflower pieces
- 2 cups fresh carrot slices
- 1½ teaspoon salt
- ¼ cup melted butter or margarine
- 2 tablespoons fresh lemon juice
- 2 cloves minced fresh garlic or ½ teaspoon powdered garlic
- 1 tablespoon chopped fresh parsley (or your favorite herb)
- 2 tablespoons grated Parmesan cheese

- 1 Cook each vegetable separately in 2 inches of boiling water with ½ teaspoon salt, until it can be just barely pierced with a fork (about 4 minutes). Drain immediately.
 - 2 Mix together butter, lemon juice, garlic and herbs. Pour over vegetables and sprinkle with cheese.
- Serves 6 to 8.

Cooking Tips

Blanch (partially cook) broccoli for 2 minutes in boiling water.

Microwave broccoli for about 5 to 7 minutes per pound depending upon your type of microwave.



Toss . . .

cooked broccoli with leftover ham slices or bacon bits, toasted cracker crumbs, bread crumbs or Parmesan cheese, lemon juice and margarine, parsley and herbs, slivered almonds or hazelnuts.



Add . . .

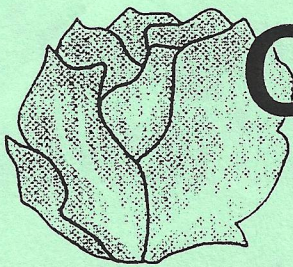
fresh or blanched broccoli to stir-fry, soups, salads, pastas and snacks.



Oregon
Department
of Agriculture



AGRI-BUSINESS
COUNCIL
OF OREGON



Cabbage



Oregon's Healthy Harvest

★ A Nutritional Superstar that protects your health ★



Time Saver

When making coleslaw, you can shred or chop cabbage up to 8 hours ahead of time if you keep it refrigerated in an air-tight plastic bag. Mix with dressing shortly before serving.



Snack Attack

Tiny, cabbage-like Brussels sprouts are delicious when steamed until just barely tender and seasoned with salt and pepper. For a change, top with cheese, bacon, onions, or nuts.

Buying/Storing

Buy cabbage with well trimmed heads that are heavy for their size.

Refrigerate red or green cabbage in an airtight plastic bag for up to 2 to 3 weeks. If wet, it will spoil rapidly.

Food Safety

Wash cabbage leaves thoroughly in a pan of clean water.

Refrigerate leftovers promptly.



Money Saver

- ★Purchase only the amount you will use within 2 to 3 weeks.
- ★Use shredded cabbage (red or green) to stretch tossed salads when greens are very high priced.
- ★Use bok choy or savoy cabbage in stir fry and pasta when they cost less than other vegetables.



Kids' Corner

Ants Nest Salad

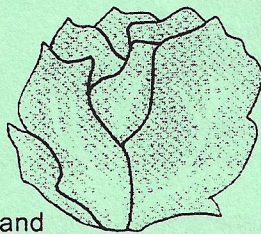
- ½ cup shredded cabbage or coleslaw (*the nest*)
 - 2 tablespoons diced carrots (*the treasure*)
 - 2 tablespoons raisins (*the ants*)
- Make a *nest* of cabbage. Tuck in the *ants* and *treasure* and eat for lunch or snack.

Pacific Fish Tacos

- 1¼ pounds white fish
- Salt and pepper to taste
- 6 crispy corn tortillas

Possible toppings

- 2 cups finely shredded green cabbage
- Tartar sauce
- Green salsa
- Diced tomato
- Chopped onion
- Grated cheddar cheese
- Chopped cilantro



- Season fish with salt and pepper; cut into 1 inch strips.
- Grill, broil or microwave the fish; remove bones.
- Heat tortillas and fill with fish and your choice of toppings.

Stove Top Casserole

- 1 tablespoon vegetable oil
- 1 small onion, coarsely chopped
- 4 medium potatoes, peeled and sliced ¼ inch thick
- 1½ cups chicken stock
- 2 cups shredded green cabbage
- 1 cup shredded Swiss cheese
- ¼ cup chopped nuts

- Heat oil in large skillet or Dutch oven. Add onions and stir over medium heat until golden. Add potatoes and chicken stock. Cover tightly, reduce heat to low and simmer until potatoes are almost tender.
- Add cabbage, cover and simmer for another 5 minutes. Remove cover, sprinkle with cheese and nuts. Let stand just until cheese is melted, about 2 minutes.

Serves 4 to 6.



Sauté . . .

cabbage until just wilted and top with Parmesan cheese and toasted bread crumbs.



Braise . . .

cabbage until it is slightly browned on the edges. Serve with ham slivers or bacon bits.



Chop . . .

cabbage into cooked meat and serve over rice.



Steam . . .

cabbage until tender and toss with cheese sauce and toasted nuts.



Oregon
Department
of Agriculture



OREGON STATE UNIVERSITY
EXTENSION
SERVICE



AGRI-BUSINESS
COUNCIL
OF OREGON

Tofu Facts

tofu

Tofu, also known as soybean curd, is a soft, cheese-like food made by curdling fresh hot soymilk with a coagulant. Traditionally, the curdling agent used to make tofu is nigari, a compound found in natural ocean water or calcium sulfate, a naturally occurring mineral. Curds also can be produced by acidic foods like lemon juice or vinegar. The curds then are generally pressed into a solid block.

Tofu was first used in China around 200 B.C. Although the discovery of the process for making tofu is lost to the ages, Chinese legend has it that the first batch of tofu was created by accident. A Chinese cook added nigari to flavor a batch of pureed, cooked soybeans; the nigari produced the curd that we know today as tofu.

Today, tofu is a dietary staple throughout Asia. This delicate food is made fresh daily in thousands of small tofu shops and sold on the street.

In recipes, tofu acts like a sponge and has the miraculous ability to soak up any flavor that is added to it. Crumble it into a pot of spicy chili sauce and it tastes like chili. Blend it with cocoa and sweetener and it becomes a double for chocolate cream pie filling. Cubes of firm tofu can be added to any casserole or soup. ☺

Types of Tofu

Three main types of tofu are available in American grocery stores.

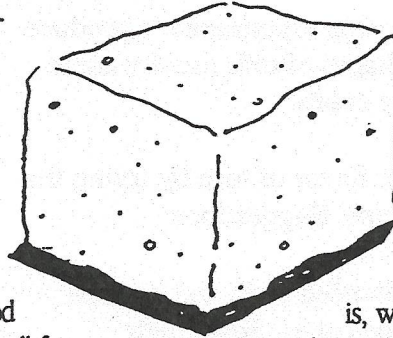
FIRM TOFU is dense and solid and holds up well in stir fry dishes, soups, or on the grill—anywhere that you want the tofu to maintain its shape. Firm tofu also is higher in protein, fat and calcium than other forms of tofu.

SOFT TOFU is a good choice for recipes that call for

blended tofu or in Oriental soups.

SILKEN TOFU is made by a slightly different process. This results in a creamy, custard-like product. Silken tofu works well in pureed or blended dishes. In Japan, silken tofu is enjoyed as

is, with a touch of soy sauce and topped with chopped scallions. ☺



TOFU NUTRITION FACTS

Tofu is rich in high-quality protein. It is also a good source of B-vitamins and of iron. When the curdling agent used to make tofu is a calcium salt, the tofu is an excellent source of calcium. While 50 percent of the calories in tofu come from fat, a 4-ounce serving of tofu contains just 6 grams of fat. It is low in saturated fat and contains no cholesterol. Generally, the softer the tofu, the lower the fat content. Tofu is also very low in sodium making it a perfect food for people on sodium-restricted diets.

NUTRIENTS IN 4 OUNCES OF TOFU

	Firm Tofu	Soft Tofu	Silken Tofu
Calories	120	86	72
Protein (grams)	13	9	9.6
Carbohydrates (grams)	3	2	3.2
Fat (grams)	6	5	2.4
Saturated fat (grams)	1	1	-
Cholesterol	0	0	0
Sodium (milligrams)	9	8	76
Fiber (grams)	1	-	-
Calcium (milligrams)	120	130	40
Iron (milligrams)	8	7	1
Percent of calories from protein	43	39	53
Percent of calories from carbohydrates	10	9	17
Percent of calories from fat	45	52	30

Source: Composition of Foods: Legumes and Legume Products. United States Department of Agriculture, Human Nutrition Information Service, Agriculture Handbook 8-16. Revised December 1986, and from product analysis.

AN APPLE A DAY - TOFU FOR YOU

Tofu has a delicate, very bland flavor and a soft texture. Tofu is quite versatile because you can flavor it as you choose and add it to many different dishes. *See Tofu Facts on the reverse side for nutritional information.*

Look for tofu in your supermarket's produce department. Packages of tofu usually come in 10 to 16 ounce cubes.

Taste the delicate flavor of tofu by trying the Sautéed Tofu recipe. Suggestions:

1. Prepare the Sautéed Tofu and cut into appetizer sized cubes. Serve with toothpicks and the peanut sauce as a dip.
2. Serve a simple tofu based meal. The foods listed below can be prepared ahead and reheated in the microwave for a quick and healthy meal:

Sautéed Tofu Slices
Cooked Brown Rice
Peanut Sauce
Broccoli Spears

Sautéed Tofu

1 Package (12-16 ounces) of firm tofu
1 Tablespoon peanut or canola oil
Dash of salt to taste

Drain the tofu and pat excess moisture with paper towels. Slice into $\frac{3}{4}$ inch thick pieces. Pat slices with paper towels. Heat oil in a **non-stick** skillet over medium high heat. Add the tofu slices and cook until golden brown on each side (about 3-4 minutes per side.) Remove from pan and drain on paper towels. Salt lightly. Serve or refrigerate.

Recipe adapted from Vegetarian Cooking for Everyone by Deborah Madison.

Peanut Sauce

Makes $\frac{1}{2}$ cup or 8 condiment sized servings.
50 Calories per serving.

$\frac{1}{4}$ cup creamy or chunky peanut butter
2 Tablespoons rice vinegar
1 Tablespoon soy sauce, light or regular
1 clove of garlic, minced
1 teaspoon sugar
Dash of cayenne or hot sauce to taste
Salt to taste
1 Tablespoon chopped cilantro

Prepare at least 1 hour before serving. Combine all ingredients. Add 2 or more tablespoons of warm water or milk to thin as desired. Keep refrigerated.

Note: Peanut sauce is delicious drizzled on rice, tofu, salads, and cooked vegetables.

Tofu Pumpkin Pie

10-12 ounce package silken tofu, blended in a blender until smooth.
1 16-ounce can of pumpkin
 $\frac{3}{4}$ cup sugar
 $\frac{1}{2}$ teaspoon salt
1 teaspoon cinnamon
 $\frac{1}{2}$ teaspoon ground ginger
 $\frac{1}{4}$ teaspoon ground cloves
1 9-inch unbaked pie shell

Preheat oven to 425°F. Cream together the pumpkin and sugar. Add the salt, spices and blended tofu, mixing until thoroughly blended together. Pour into pie shell. Bake at 425°F for 15 minutes. Lower the heat to 350°F and bake for 40 additional minutes. Cool and refrigerate.

Recipe Source: Soyfoods Association of America