

INCORPORATING MORE FRUITS AND VEGETABLES INTO YOUR DIET

When we think about the health benefits of fruits and vegetables, we usually focus on the fact that they are rich in complex carbohydrates, dietary fiber, and vitamins and low in fat. A benefit that we may overlook is that they contain specific cancer-fighting compounds (phytochemicals) that help slow, stop, or even reverse the process of cancer. The National Cancer Institute (NCI) reports that people who eat five or more servings a day of fruits and vegetables have half the risk of cancer of those who eat less than two; according to the NCI, five to nine servings per day is optimal. The NCI, along with industry groups, has developed a program to help more Americans increase their intake of fruits and vegetables to health-promoting levels—the “5 A Day for Better Health” program. In line with the NCI program, this behavior change plan focuses on increasing daily intake of fruits and vegetables. (For more information on the NCI program, visit the Web site at <http://www.5aday.gov>.)

Getting Ready for Change: A Cost-Benefit Analysis

Do you feel ready and committed to change your behavior? Although your primary surface reason for developing and implementing a behavior change project may be to get a good grade in your wellness course, you’re more likely to be successful both now and in the long term if you believe that the benefits of changing outweigh the costs. As an initial step in your program, complete an analysis of the benefits and costs of change for you using the [Behavior Change Cost-Benefit Analysis worksheet](#). Use your analysis to create a list of your major reasons for behavior change—and then post your list in a prominent location.

In your analysis, include the short-term and long-term costs and benefits of both your current behavior and your new behavior. For example, your current food choices may be convenient but may also increase your risk of becoming overweight and developing cancer or heart disease. Your food choices affect wellness in terms of both the energy and nutrient content of the foods you consume and the other possible ways you might have “spent” your calories. For example, trading in a regular soda or candy bar for a glass of water or lower-calorie snack might free up 150–250 calories that you could put toward increasing your intake of fruits and vegetables. Also consider physical and emotional effects on yourself and others. For example, would a healthier diet support your self-image or personal values? Is health important to you, and is your current lifestyle supporting that value? Are your eating habits influencing others?

Gather Data and Establish a Baseline

Once you are ready to change, begin by tracking your diet for one to two weeks. Keep a record of the foods and beverages you consume. Also note where you were at the time and other influences on your food choices and eating behavior. Use the [Pre-Program Fruit and Vegetable Log](#) or create your own journal or log page.

At the same time, investigate your options. Find out what fruits and vegetables you can easily obtain over the course of your daily routine. For example, what is available in the dining hall where you eat lunch or at the student union where you often grab snacks? What is offered at your favorite fast-food restaurant? What could you buy ahead and carry with you? This information will help you put together a successful plan for change.

Analyze Your Data

Evaluate your daily fruit and vegetable consumption by adding up the total number of servings you consume each day; use the serving size guidelines on the log. How close are you to the recommended 5–9 servings of fruits and vegetables? If you are like most Americans, you have room for improvement in the area of fruit and vegetable consumption.

Set Goals

What would be a healthy and realistic goal for improvement? For example, if you currently consume 4 daily servings of fruits and vegetables, you might choose a goal of 6 servings per day. If you are already in the 5–9 daily servings range, you might choose a goal of improving your fruit and vegetable intake by adding more variety to your choices and/or by focusing on particularly nutrient-rich fruits and vegetables (see the list of “super-stars” below). Develop an overall goal and some intermediate goals for your program. In the first example, an intermediate goal might be 5 daily servings of fruits and vegetables.

Develop Strategies and a Plan for Change

Once you’ve set your goal, you need to develop strategies that will help you choose healthy beverages more often. The following lists provide tips for changing your behavior and your environment to increase your fruit and vegetable intake. Because most fruits and vegetables are low in calories, you probably do not need to make significant trade-offs—that is, there is no need to cut out foods in order to accommodate additional servings of fruits and vegetables. However, if you do decide to make some trade-offs, focus on reducing servings of so-called “empty calorie” foods, those high in calories, fat, and added sugars and low in other nutrients.

Breakfast

- Drink 100% juice every morning.
- Add raisins, berries, or sliced fruit to cereal, pancakes, or waffles. Top bagels with tomato slices.
- Try a fruit smoothie made from fresh or frozen fruit and orange juice or low-fat yogurt.

Lunch

- Choose vegetable soup or salad with your meal.
- Replace potato chips or french fries with cut-up vegetables.
- Add extra chunks of fruits or vegetables to salads.
- Try adding vegetables such as roasted peppers, cucumber slices, shredded carrots, avocado, or salsa to sandwiches.
- Drink tomato or vegetable juice instead of soda (watch for excess sodium).

Dinner

- Choose a vegetarian main course, such as stir-fry or vegetable stew. Have at least two servings of vegetables with every dinner.
- Microwave vegetables and sprinkle them with a little bit of Parmesan cheese.
- Substitute vegetables for meat in casseroles and pasta and chili recipes.
- At the salad bar, pile your plate with healthy vegetables and use low-fat or nonfat dressing.

Snacks and On the Go

- Keep “grab and eat” fruits and vegetables on hand (apples, plums, pears, and carrots).
- Keep small packages of dried fruit in the car (try dried apricots, peaches, and pears and raisins).
- Make ice cubes from 100% fruit juice and drop them into regular or sparkling water.
- Freeze grapes for a cool summer treat.

In the Grocery Store

- Stock up on canned, frozen, and dried fruits and vegetables when they go on sale. Buy fresh fruits and vegetables in season; they’ll taste best and be less expensive.
- To save on preparation time, buy pre-sliced vegetables and fruits and prepackaged salads.
- Try a new fresh fruit or vegetable every week.

Superstars

Different fruits and vegetables contribute different vitamins, phytochemicals, and other nutrients, so be sure to get a variety. The following types of produce are particularly rich in nutrients and phytochemicals:

- Cruciferous vegetables (broccoli, cauliflower, cabbage, bok choy, brussels sprouts, kohlrabi, turnips, etc.)
- Citrus fruits (oranges, lemons, limes, grapefruit, tangerines, etc.)
- Berries (strawberries, raspberries, blueberries, etc.)
- Dark-green leafy vegetables (spinach, chard, collards, beet greens, kale, mustard greens, romaine and other dark lettuces, etc.)
- Deep-yellow, orange, and red fruits and vegetables (carrots, pumpkin, sweet potatoes, winter squash, red and yellow bell peppers, apricots, cantaloupe, mangoes, papaya, etc.)
- Legumes (lentils, split peas, black beans, kidney beans, pinto beans, chickpeas, etc.)

Adopt some of these strategies and develop your own. See also the resources listed in your text and on the Online Learning Center.

You may also need to make changes in your routine to decrease the likelihood that you'll make unhealthy choices. For example, your logs may show that you rarely have fruit in the morning; you may need to get up 15 minutes earlier to allow time for a sit-down breakfast that can include fruit juice and cereal topped with fruit. Or you may find that you frequently have a late night cheese pizza when you study with a particular friend. In this case, you may need to involve your friend in your program by asking her or him to support you in your efforts to change. And try to guard against impulse snacking on nutrient-poor foods by carrying water, fruits, or vegetables with you every day.

As a final planning step, develop some rewards for your program—for achieving intermediate and final goals as well as for just sticking with your program. Make a list of your activities and favorite events to use as rewards. They should be special, inexpensive, and preferably unrelated to food or alcohol. You might treat yourself to a concert, a ball game, a new CD, a long-distance phone call to a friend, a day off from studying for a hike in the woods—whatever is meaningful to you. List your rewards on your behavior change contract.

Complete a Contract

The last step before you put your program into action is to make a formal commitment by completing a contract. Your contract should include the following elements:

- Your name
- A statement of your goal, including your current status and target status
- A start date—choose a date in the near future
- A target completion date
- A system of mini-goals and rewards
- Your list of key strategies; if your plan focuses on the “superstars,” you may want to include a list of them in your contract
- A description of the involvement of others—if you plan to have friends or family members involved in your program, describe what they will do
- A place for your signature and, if possible, the signature of a witness—having someone else witness your contract can help make you more likely to stick with your program

Use the template provided in the [Behavior Change Contract form](#) or devise your own contract.

Monitor Your Progress

Once your plan is complete, take action. Keep track of your progress toward your goal by continuing to monitor and evaluate your fruit and vegetable consumption. Use the Fruits and Vegetable Program Log or devise your own form.

Name _____ Date _____

Behavior Change Cost-Benefit Analysis

Current (target) behavior: _____

New behavior: _____

Short-term benefits of current behavior:

Short-term costs of current behavior:

Long-term benefits of current behavior:

Long-term costs of current behavior:

Short-term benefits of new behavior:

Short-term costs of new behavior:

Long-term benefits of new behavior:

Long-term costs of new behavior:

Key reasons for behavior change: Review your analysis and identify your most important reasons for changing your behavior; post your list of key reasons in a prominent location.

Name _____ Date _____

Pre-Program Fruit and Vegetable Log

Record your diet during a 24-hour period. List the time, food, portion size (amount), circumstances (physical location, other aspects of the environment), and key external and internal influences on your choices (degree of hunger, emotional state, the people around you). At the end of the day, use the serving size guidelines below to total the day's servings of fruits and vegetables. In addition, keep notes about opportunities to purchase or consume additional servings over the course of the day.

| Time | Food | Amount | Circumstances | Influences |
|------|------|--------|---------------|------------|
| | | | | |

(continue on following page if needed)

Total daily servings of fruits and vegetables (see chart below): _____

Notes (easy opportunities for additional servings of fruits and vegetables):

One serving is the equivalent of the following:

- 1 medium (apple, banana, peach, orange, pear) or 2 small (apricot, plum) whole fruit(s)
- 1 melon wedge or 1/2 grapefruit
- 1 cup raw leafy vegetables
- 3/4 cup fruit or vegetable juice
- 1/2 cup raw or cooked vegetables; tomato sauce; dry beans; cherries, berries, or grapes; shopped, cooked, canned, or frozen fruit
- 1/4 cup dried fruit

- 1/4 cup = golf ball
- 1/2 cup = average rounded handful, small ice cream scoop, 1/3 soda can
- 1 cup = tennis ball or small adult fist

Top choices:

- Cruciferous vegetables (broccoli, cauliflower, cabbage, cabbage, bok choy, brussel sprouts, kohlrabi, turnips, etc.)
- Citrus fruits (oranges, lemons, limes, grapefruit, tangerines, etc.)
- Berries (strawberries, raspberries, blueberries, etc.)
- Dark-green leafy vegetables (spinach, chard, collards, beet greens, kale, mustard greens, romaine and other dark lettuces)
- Deep-yellow, orange, and red fruits and vegetables (carrots, pumpkin, sweet potatoes, winter squash, red and yellow bell peppers, apricots, cantaloupe, mangoes, papaya, etc.)
- Legumes (split peas, lentils, black beans, kidney beans, pinto beans, chickpeas, etc.)

| Time | Food | Amount | Circumstances | Influences |
|-------------|-------------|---------------|----------------------|-------------------|
| | | | | |

Name _____ Date _____

Behavior Change Contract

(1) I _____ agree to _____
(name) (specify behavior you want to change; include current status)

(2) I will begin on _____ and plan to reach my goal of _____
(start date) (specify final goal)

by _____ .
(final target date)

(3) In order to reach my final goal, I have devised the following schedule of mini-goals. For each step in my program, I will give myself the reward listed.

| | | |
|---------------|---------------|----------|
| _____ | _____ | _____ |
| (mini-goal 1) | (target date) | (reward) |
| _____ | _____ | _____ |
| (mini-goal 2) | (target date) | (reward) |
| _____ | _____ | _____ |
| (mini-goal 3) | (target date) | (reward) |
| _____ | _____ | _____ |
| (mini-goal 4) | (target date) | (reward) |
| _____ | _____ | _____ |
| (mini-goal 5) | (target date) | (reward) |

My overall reward for reaching my final goal will be _____

(4) I have gathered and analyzed data on my target behavior and have identified the following strategies for changing my behavior:

(5) I will use the following tools to monitor my progress toward reaching my final goal:

(list any charts, graphs, or logs you plan to use)

(6) I have recruited a helper who will witness my contract and _____

(list any way in which your helper will participate in your program)

(continued on following page)

I sign this contract as an indication of my personal commitment to reach my goal.

(your signature)

(date)

(witness's signature)

(date)

ADDITIONAL INFORMATION ABOUT BEHAVIOR CHANGE PROGRAM

Name _____ Date _____

Fruit and Vegetable Program Log

Record your diet during a 24-hour period. List the time, food, portion size (amount), circumstances (physical location, other aspects of the environment), and key external and internal influences on your choices (degree of hunger, emotional state, the people around you). At the end of the day, use the serving size guidelines below to total the day's servings of fruits and vegetables. In addition, keep notes about the behavior change strategies you use successfully over the course of the day.

| Time | Food | Amount | Circumstances | Influences |
|------|------|--------|---------------|------------|
| | | | | |

(continue on following page if needed)

Total daily servings of fruits and vegetables (see chart below): _____

Behavior change strategies in use:

One serving is the equivalent of the following:

- 1 medium (apple, banana, peach, orange, pear) or 2 small (apricot, plum) whole fruit(s)
- 1 melon wedge or 1/2 grapefruit
- 1 cup raw leafy vegetables
- 3/4 cup fruit or vegetable juice
- 1/2 cup raw or cooked vegetables; tomato sauce; dry beans; cherries, berries, or grapes; shipped, cooked, canned, or frozen fruit
- 1/4 cup dried fruit

- 1/4 cup = golf ball
- 1/2 cup = average rounded handful, small ice cream scoop, 1/3 soda can
- 1 cup = tennis ball or small adult fist

Top choices:

- Cruciferous vegetables (broccoli, cauliflower, cabbage, cabbage, bok choy, brussel sprouts, kohlrabi, turnips, etc.)
- Citrus fruits (oranges, lemons, limes, grapefruit, tangerines, etc.)
- Berries (strawberries, raspberries, blueberries, etc.)
- Dark-green leafy vegetables (spinach, chard, collards, beet greens, kale, mustard greens, romaine and other dark lettuces)
- Deep-yellow, orange, and red fruits and vegetables (carrots, pumpkin, sweet potatoes, winter squash, red and yellow bell peppers, apricots, cantaloupe, mangoes, papaya, etc.)
- Legumes (split peas, lentils, black beans, kidney beans, pinto beans, chickpeas, etc.)

| Time | Food | Amount | Circumstances | Influences |
|-------------|-------------|---------------|----------------------|-------------------|
| | | | | |