

Eat Five

CONTENTS

Introduction 1

Target audience 1

Development and impact 1

Lesson goals and objectives 2

Lesson content 2

Program management 3

- Choosing a delivery method
- Time interval between lessons
- Location
- Contact person
- Advertising and recruitment
- Registration
- Delivery by impersonal distribution
- Delivery by group meeting

Cost and fees 6

- Impersonal delivery
- Group delivery

Reporting on PACER 6

Materials available from College of Agricultural Sciences Mailroom 6

Appendix 1 - Lesson contents, notes on worksheets, and complete list of "Some Common Questions" 7

Appendix 2 - Advertising pieces 9

Appendix 3 - Letter to include with Lesson 5 13

Appendix 4 - Group presentation script, Lesson 1 14

Appendix 5 - Group presentation script, Lesson 2 16

Appendix 6 - Activity sheet for recipe modification, Lesson 2 18

Appendix 7 - Group presentation script, Lesson 3 20

Appendix 8 - Group presentation script, Lesson 4 22

Appendix 9 - Group presentation script, Lesson 5 24

Appendix 10 - Concluding meeting script 26

Appendix 11 - Recipes for group presentations and concluding meeting 28

Appendix 12 - Overheads 31

INTRODUCTION

Eat Five is a set of five learn-at-home lessons that provide information on reducing the risk for certain types of cancers. The lessons are tied to the National Cancer Institute's (NCI) 5 a Day campaign, which emphasizes eating five fruits and vegetables daily.

The lessons introduce the Food Guide Pyramid as a model for eating to reduce cancer risk. They also stress eating less fat and consuming more fruit, especially citrus, and vegetables, especially deep yellow, dark green, leafy, and cruciferous. In addition, participants are shown how to use the Nutrition Facts panel on food labels to monitor fat, vitamin A, and vitamin C intake. The lessons explain how cancer develops and how various substances in food seem to affect the development of certain types of cancer.

The lessons are targeted to individuals concerned about reducing their own risk of cancer as well as that of their families. Since teaching children to eat vegetables is always difficult, the participant is encouraged to involve children in preparing vegetable and fruit dishes as a way to interest them in eating these foods.

TARGET AUDIENCE

The target audience is composed of working parents, ages 21-45, with at least one child living at home. Both men and women of other ages, single and married, can also benefit from the lessons, but they may find the material on children less relevant.

DEVELOPMENT AND IMPACT

Eat Five is designed for delivery at worksites. It is modeled after a lesson series that was shown by an impact study to improve participants' knowledge about osteoporosis and lead them to make positive changes in their food behaviors.

Although an impact study has not been conducted for this lesson series on cancer, a group of women at several types of worksites completed the draft Eat Five lessons and rated them in writing. The women had a mean education level of 12.9 ± 1.5 years. On a scale of 1 (easy to read) to 5 (hard to read), they rated the complete lesson set at 1.4. On a scale of 1 (very useful) to 5 (useless), they rated the complete lesson set at 1.7. The sections, "Diet and Cancer" and "Some Common Questions and Their Answers," received the highest "useful" ratings.

Based on an impact study that compared the effects of distributing learn-at-home lessons by themselves with the effects of distributing the lessons as part of a taste testing and mini-motivational meeting, the leader can expect that:

■ participants who receive the lessons one at a time to read at home will increase their knowledge and make some changes in fruit and vegetable intake.

■ participants who receive the lessons to read at home in conjunction with the motivational meeting will increase their knowledge, but will make more long-lasting changes in fruit and vegetable intake.

Participants who experience the motivational meeting are more likely to:

- skim or read parts rather than all of the lesson materials,
- consider the lessons more useful, and
- try foods they are less familiar with.

LESSON GOALS AND OBJECTIVES

Educational goals

1. Raise participants' awareness of how food choices and lifestyle actions affect their risk for certain common types of cancer.
2. Encourage participants to change some of their food choices or lifestyle actions to lower that risk.

Educational objectives

1. Introduce the Food Guide Pyramid as the basis for healthful eating.
2. Explain why eating five fruits and vegetables a day is recommended.
3. Explain what cancer is, how it develops, and what types of cancer appear to be affected by food intake.
4. Explain the role of fat, vitamins A and C, fiber, flavonoids, and other natural food substances in cancer development.
5. Show how to involve children in food preparation.
6. Help participants evaluate their own risk of developing some common cancers.

Specific educational outcomes

Participants will:

1. understand what "5 a Day" means;
2. recognize the role of fat, vitamins A and C, and fiber in reducing risk for common cancers;
3. evaluate their own fat intake, fruit intake, vegetable intake, and risk of developing common cancers;
4. make a change in food choices and food preparation if appropriate;
5. broaden their children's involvement in food shopping and preparation if appropriate.

LESSON CONTENT

Each lesson contains:

- a background unit composed of an introduction to the featured topic, recipe notes, and a Diet and Cancer section;
- an information sheet, Some Common Questions and Their Answers;
- a worksheet;
- a fact sheet;
- a tip sheet about the featured food;
- Children and Teenagers in the Kitchen, a page of suggestions for involving children in meal preparation;
- recipes (four per lesson).

Some of the lessons include additional pieces. These are:

Lesson 1: Cover letter

Lesson 2: Two additional fact sheets: What's in Fat and Sources of Fat

Lesson 5: Questionnaire

Each lesson features fruits or vegetables:

Lesson 1: fruits containing vitamin A and vitamin C

Lesson 2: broccoli and potatoes

Lesson 3: carrot, squash, pumpkin, and sweet potatoes

Lesson 4: dark green, leafy vegetables

Lesson 5: cruciferous vegetables

Each worksheet provides a different assessment activity for participants. The fifth worksheet encourages them to make a lifestyle change. All worksheets are designed to be scored by the participant. Worksheets are:

Lesson 1: Fruit Check-up: Tracking the Amount of Fruit Eaten Daily

Lesson 2: Fat Screen: Estimating the Amount of Fat Eaten

Lesson 3: Cancer Risk Assessment: Assessing Cancer Risk

Lesson 4: Vegetable Choices: Evaluating Vegetable Choices Past and Present

Lesson 5: A Commitment to Good Health: Making a Commitment to an Action that Reduces Cancer Risk

The Eat Five lessons require a seventh (7th) grade reading level.

A complete list of materials to be included in each lesson is found in Appendix 1, along with notes on the worksheets and a list of the common questions.

PROGRAM MANAGEMENT

Choosing a delivery method

The lessons can be provided to participants at worksites two ways. Each has advantages and disadvantages.

■ Your contact person at the worksite can distribute the series as learn-at-home lessons, with an optional follow-up meeting. *Advantages:* (1) Requires least time of nutrition educator, (2) easy to teach a volunteer how to organize and distribute the materials, and (3) does not require a meeting room or employee time at work.

Disadvantages: (1) You have no personal contact with or feedback from participants, and (2) participants are less likely to change their behaviors.

■ You can distribute each lesson at five or six motivational meetings that include taste testing of foods featured in the lessons. *Advantages:* (1) Gives you personal contact and feedback from participants, (2) can be done at a workday lunch hour as well as at an evening meeting, and (3) participants are more likely to make changes in behaviors. *Disadvantages:* (1) More preparation time required to prepare food samples, (2) more work required to teach a volunteer to deliver, (3) requires a 30-minute time period and a meeting room, and (4) person who leads meeting must “know” the material.

Directions for both types of delivery are presented on pages 4-5. Read them to become familiar with the work involved.

Time interval between lessons

For the impact study, a group meeting with a lesson or just the lesson was provided *once every two weeks*. This gave participants time to read a lesson over the weekend and to try recipes and other activities the following week.

Participants of focus groups conducted after the study's first phase had mixed opinions about this timing. Some felt the timing was good; others preferred a one-week interval. The participating extension agents and managers more often wanted a one-week interval. Part of this preference for a shorter interval reflected a wish to economize on the time commitment; part reflected the fact that some participants seem to need more frequent contact.

Consider how the lessons can be delivered—impersonally, as handouts participants complete entirely on their own, or at group motivational meetings on company time—and then consider the audience.

The time interval between lessons should match participants' ability to read and digest material and to try recipes. *The meetings are designed to give only highlights of the lessons. Participants must still read the lessons to get their full benefit.* The interval between meetings should also allow you time to prepare the presentations and food samples.

You may use either a one-week or a two-week interval between lessons. The longer time interval may make it easier for participants to adopt the suggested behaviors.

Location

The lessons are packaged for delivery to working parents at their worksites. Women are more likely to register than men. In the impact study, we compared interest in the lessons at child care units and at a variety of worksites. Mothers using child care facilities were not interested in the lesson series, while women at worksites showed a much higher interest. Subsequently, participants at a number of different types of worksites have used learn-at-home lesson sets successfully. Worksites included:

- poultry processing plants
- dress-making factories
- blue collar manufacturing plants
- home care provider units
- printing and publishing houses
- county courthouses
- banks
- insurance companies
- food-processing companies
- electrical utility companies
- hospitals
- hardware and lumber distributors

Contact person

Two things are critical for your success at a worksite: the support of company management and an enthusiastic contact person.

Contact a management representative (the personnel manager is a good place to start) by phone, explain what you can offer, and make an appointment to visit him or her personally. Share lesson materials and discuss how the information can be delivered. Let the person know that the material can support the company's health and benefits program.

If interest and support are strong, determine who is to be your contact person. Companies often want a nurse, a health coordinator, or a member of the personnel staff to fill that role.

Meet with your contact person. Determine his or her enthusiasm and desired role in the program. Contact persons can make or break your effort. If they are lukewarm, expect less success in recruiting people and less of a likelihood that lessons will be completed. If contact persons are your cheerleaders, they will make your job much easier.

Working with your contact person, determine how the lessons will be delivered. Then discuss the time interval to be allowed between lessons. Discuss the time interval with

your contact person and, if possible, talk to key informants at the site. See what they think. The key informant's opinion may be more important in determining the time interval than the contact person's opinion. Then negotiate a time to begin advertising and recruitment.

Be prepared for the unexpected at a worksite. Interest, support, and personnel can change overnight or anytime during the process.

Advertising and recruitment

The content of advertising materials differs slightly for the two delivery methods. Appendix 2 contains examples of the following available advertising materials:

- Paycheck stuffer
- Newsletter article, impersonal distribution
- Newsletter article, group meeting
- Electronic bulletin board message
- Poster, green and white
- Brochure, group meetings
- Brochure, impersonal distribution

The poster and advertising brochures are available from 112 Agricultural Administration Building. You may want to tailor some of the advertising materials for your particular site.

Here are some basic guidelines for advertising:

Plan to advertise for about two to four weeks. Choose a deadline for registration that precedes by one week the date you wish to hold the first meeting or distribute the first lesson.

Work with your contact person to plan advertising. Use the contact person's suggestions and your own ideas. Not everything provided is necessary or will work at a site. Use whatever works best for your site from the ideas below.

Posters. Place on conspicuous bulletin boards. Stand several on desktops where people will see them.

Brochures. Place at the base of the self-supporting poster or in an envelope stapled to the bottoms of posters tacked to bulletin boards. Brochures may also be distributed by themselves. In some locations, a brochure can be enclosed with a personal letter inviting participation and sent home with employees.

Paycheck stuffers. Distribute at least once—perhaps twice. See that the contact person is prepared to answer questions generated by the forms in the appendix. You may need to produce your own paycheck stuffer with specific details about lesson cost, registration, and contact person.

Newsletter article. Run in the company newsletter if time and space permits.

Video display message. Run for several weeks if the company has a video display system.

Personal recruitment. Extension agents have consistently found that personal recruitment is the most productive

method. As one agent said: "The program will go without a recruitment presentation (by you) if the company contact truly wants to see it be successful and will take the initiative to do more than just put up posters and distribute flyers. Encouraging people face to face is what works."

Short talks. Provide short talks (10 minutes) to advertise the course, using the outline in Appendix 2. *Plan to give a minimum of one personal appearance per site.* You can also use this time to introduce potential participants to Cooperative Extension.

Note: The brochure, poster, and newsletter articles all need to include starting date, location, time, etc. Be sure to write in these details before distributing the materials.

Registration

Arrange a drop-off box for registration forms at the worksite. Collect forms the day after the deadline. Or fill in the "Return this registration form today to" space on the brochure with the name and phone number of the company's contact person. Let the contact person collect the forms for you.

Make up a registration list for each site. You can set up what you need using software available in your office. You might include columns for the following information:

- name, address, and phone number
- sex (some men are interested in this course, too)
- Lessons 1-5 (to record distribution or attendance)
- postcourse questionnaire returned
- refrigerator poster sent

When your registration list is confirmed, send each person a letter welcoming him or her to the series. Confirm the starting date and the details (distribution process or meeting room and time).

Delivery by impersonal distribution

1. Establish a lesson distribution schedule at the site, so that you can deliver lessons one day of the week. Companies will prefer different days of the week for distribution, depending on their circumstances. Have the contact person announce the distribution schedule for the lessons, once every two weeks for ten weeks or once a week for five weeks. Encourage them to complete distribution on a particular day so that participants stay on schedule.

You may want to arrange to hand out the lessons personally at a particular time. The contact person may decide to distribute them personally to participants on a particular day. If you can manage it, this personal touch helps keep participants motivated.

2. Prepare generic sign-in sheets or copies of your registration form for the site. Give them to the site manager to keep track of who picks up or receives lessons.

3. Use your registration list to keep tabs on delivery of

lessons to the site and participants and receipt of postcourse material.

4. Assemble Lesson 1 in a folder. Follow the order suggested in Appendix 1. You may use Penn State folders or personalized folders if you wish. Give the assembled lessons to your contact person and have him or her distribute one of the lesson bundles to each participant. To help keep participants on track, consider placing a sticky note on the lesson to remind them when the next lesson will be handed out.

5. Organize the next four lesson bundles. Use the order listed in Appendix 1 as a reference. Keep lesson bundles in different boxes that are clearly labeled so lessons are delivered in order.

6. Arrange for a drop-off box for the postcourse questionnaires, or have someone onsite collect them. *Write a deadline for their return on postcourse questionnaires (about one week after the last lesson is distributed).*

7. Collect any postcourse questionnaires returned.

8. Two weeks after the deadline for return of the postcourse questionnaires, mail a refrigerator poster to people who have returned them. Provide certificates of completion to the contact person for distribution to participants.

If you decide to hold a short concluding meeting:

1. Lesson 5 should contain the xeroxed letter (in Appendix 3) about the concluding meeting date (one week after distributing the last lesson) as well as the postcourse questionnaire. *Write a deadline for its return on the postcourse questionnaire. Set this deadline for the date of the concluding meeting.* If you cannot arrange a drop-off box or collection at the site, a business reply envelope needs to be included.

2. *One week after distributing the fifth lesson*, hold your concluding meeting. (See Appendix 10 for a topic outline.) The meeting's purpose is to:

- collect postcourse questionnaires and pass out refrigerator posters;
- answer any questions;
- alert participants to other materials available from Penn State Cooperative Extension;
- pass out completion certificates;
- optional: present certificate of appreciation or other thank you to personnel contact.

Delivery by group meeting

1. Establish a meeting schedule at the site so you can hold the meetings and deliver lessons efficiently. Group meetings were designed to fit into a lunch hour and to take 30 minutes each. Negotiate:

- a separate meeting room (otherwise noise and distractions will annoy you);

- no smoking during lesson (some lunch rooms allow smoking);

- convenient 30-minute meeting time (you will need extra setup time);

- a place to store utensils except food.

Note: The voting procedure included in the group meeting scripts is an important activity. It motivates people to try the suggested behavior.

You will need an overhead projector for the meeting room. Have the contact person announce the meeting schedule for the lessons.

2. Lay out a master calendar of your meetings and food preparation activities. For each lesson, you will need to note (1) when to food shop, (2) when to prepare food samples, and (3) when to deliver the group meeting and lessons.

Presentations at worksites offer an additional advantage. You can do them during your daytime work hours. However, you still have to shop and prepare the food samples. Whether you do this during the day or in the evening will depend on your circumstances.

3. Prepare a generic sign-in sheet for each lesson. Have one participant at the meetings use it to keep track of who attends and who picks up lessons. *Have people sign in at the beginning of the meeting. Hand out the lessons at the meeting's end.* Your volunteer can be in charge of passing out the next lesson and placing a check beside the name of each person who receives one.

4. Assemble the first lesson in a folder. Follow the order suggested in Appendix 1. You may use Penn State folders or personalized folders, if you wish. Take the assembled lessons to the sites with the rest of your material.

5. Prepare your food samples and present Lesson 1. Follow the group presentation script in Appendix 4. The recipe to use for Lesson 1 is in Appendix 11. At the end of the first group meeting, give each participant a copy of Lesson 1.

6. During the interval before Lesson 2, assemble the next four lesson bundles using Appendix 1 for reference. Keep lesson bundles in different boxes that are clearly labeled so lessons go out in order.

Lesson 5 should contain the xeroxed letter (in Appendix 3) about the concluding meeting date (set for one week after distributing the last lesson) and the postcourse questionnaire. *Write a deadline for its return on the postcourse questionnaire. Set this deadline for the date of the concluding meeting.*

7. Provide group meetings 2 to 5 to your site as outlined in Appendices 5-9 using recipes in Appendix 11.

8. Use the registration list to keep tabs of attendance at the site and receipt of postcourse material.

9. If you wish, arrange for a drop-off box for the postcourse questionnaire at your site the day after Lesson 5 is distributed.

10. *One week after distributing the fifth lesson*, hold your

concluding meeting. The script is in Appendix 10 and the recipe is in Appendix 11. The purpose of this meeting is to:

- collect postcourse questionnaires and pass out refrigerator posters;
- summarize lessons and answer any remaining questions;
- pass out completion certificates;
- present certificate of appreciation to personnel contact;
- take a group picture.

Check the drop-off box periodically. Bring your registration list up to date for returned questionnaires.

11. Two weeks after the deadline for the return of postcourse questionnaires, mail a refrigerator poster to those who returned the questionnaires, but who did not attend the concluding meeting.

COSTS AND FEES

Impersonal delivery

If your contact is willing to distribute all the lessons and to collect the postcourse questionnaires, there is no reason to charge for the lessons. However, if you make trips to hand out the lessons and provide postage to recover the postcourse questionnaires, charging \$2.00 per lesson set is reasonable.

Group delivery

The costs of food samples and paper products can be recovered at \$5.00 per person if the group size is 12 or more. If the group is smaller, you may have to charge more. In general, a charge of \$8.00 per participant is not unreasonable for group delivery. You may have to adjust the cost to meet your circumstances.

REPORTING ON PACER

Enter the time you devoted to the Eat Five program into PACER. Please send Lynne Brown, 203 B Borland, copies of the postcourse questionnaires returned during the fiscal year.

MATERIALS AVAILABLE FROM COLLEGE OF AGRICULTURAL SCIENCES MAILROOM

- Lessons 1-5 (see Appendix 1 for lesson contents)
- Certificate of Completion
- Certificate of Appreciation
- Advertising brochures (one for impersonal delivery; one for group delivery)
- Refrigerator poster
- Advertising poster
- *Leader's Guide*

APPENDIX 1

Lesson contents
Notes on worksheets
Complete list of "Some Common Questions"

Lesson contents

Lesson 1:

Fruits and Vegetables—What's in Them for You?

Eat Five Background
Objectives and Introduction
Diet and Cancer: Using the Food Guide Pyramid
Information Sheet: Some Common Questions and Their Answers
Worksheet: Fruit Check-up
Fact Sheet: Quick and Easy Ways to Eat More Fruit
Fruit Tips: Handling Fruit Rich in Vitamins A and C
Children and Teenagers in the Kitchen
Recipes
Banana en Papillote
Strawberry Sauce
No-bake Peach Pie
Cantaloupe Bowls

Lesson 2: Lowering Fat in Your Diet

Eat Five Background
Objectives and Introduction
Diet and Cancer: How Cancer Forms—the Role of Fat in Food
Information Sheet: Some Common Questions and Their Answers
Worksheet: Fat Screen
Fact Sheet: Cut the Fat in Cooking and Baking
Fact Sheet: What's in Fat?
Fact Sheet: Sources of Fat
Vegetable Tips: Broccoli and Potatoes
Children and Teenagers in the Kitchen
Recipes
Antipasto
Lemony Chicken Kabobs
New Scalloped Potatoes
Chilled Broccoli with Lemon Dressing

Lesson 3: Dark Yellow Vegetables

Eat Five Background
Objectives and Introduction
Diet and Cancer: Vitamin A

Information Sheet: Some Common Questions and Their Answers

Worksheet: Cancer Risk Assessment

Fact Sheet: Cut the Fat while Shopping and Eating

Vegetable Tips: Carrots, Squash, Pumpkin, and Sweet Potatoes

Children and Teenagers in the Kitchen

Recipes

Winter Squash Soup

Butternut Cabbage Bake

Cinnamon Carrot Sticks

Montgomery County Squash

Lesson 4: Dark Green, Leafy Vegetables

Eat Five Background
Objectives and Introduction
Diet and Cancer: Vitamin C and Fiber
Information Sheet: Some Common Questions and Their Answers
Worksheet: Vegetables Choices, Past and Present
Fact Sheet: How to Eat More Fiber
Vegetable Tips: Dark Green, Leafy Vegetables
Children and Teenagers in the Kitchen
Recipes
Calcannon
Kale with Yogurt
Sunshine Spinach Salad
Hot Greens and Potatoes

Lesson 5: Cruciferous Vegetables

Eat Five Background
Objectives and Introduction
Diet and Cancer: Carcinogens, Anticarcinogens, and Alcohol
Information Sheet: Some Common Questions and Their Answers
Worksheet: A Commitment to Good Health
Fact Sheet: Using Nutrition Labels to Reduce Cancer Risk
Vegetable Tips: Cruciferous Vegetables
Children and Teenagers in the Kitchen
Questionnaire
Recipes
Vegetable Cheese Pie
Stir-fried Mushrooms and Broccoli
Brussels Sprouts with Scallions
Red, White, and Green Salad

Notes on Worksheets

Lesson 1: Fruit Check-up

This worksheet is a simple record of one week's intake of fruit.

Lesson 2: Fat Screen

This worksheet is based on the fat screen described by G. Block, C. Clifford, M. D. Naughton, M. Henderson, and M. McAdams in "A brief dietary screen for high fat intake," *Journal of the American Dietetic Association* 89, 199-207, 1989. We used the medium portion size only and the values for total fat described in this paper for scoring. The mid-point of fat intake estimated for a population of white women, ages 45-69, using this screen was 21.3 grams. We suggest that individuals who score higher than 20 grams think about changing their food choices to lower fat intake.

Lesson 3: Cancer Risk Assessment

This worksheet encourages users to think about their genetic inheritance and environmental factors, including personal habits, that might put them at risk for certain types of cancer. Scoring is not based on epidemiological risk but instead gives a higher number of points for actions or inherited factors that increase the individual's risk of developing cancer. Few or no points are given for protective actions. Thus the lower the final score, the less the risk of developing certain types of cancer or vice versa—the higher the score, the higher the risk of developing certain types of cancer.

Lesson 4: Vegetable Choices—Past and Present

In this worksheet, participants compare their vegetable choices over the previous week and seasonally. The worksheet is used to assess their pattern of eating dark green and deep yellow vegetables.

Lesson 5: A Commitment to Good Health

Participants review their worksheets for Lessons 1-4 and choose one or two practices they could adopt to reduce their risk of common cancers. They are asked to analyze barriers to these practices and determine which practice would be easiest to adopt. Finally, they are asked to sign a personal contract to adopt this practice for a period of time. It is hoped the contract will help them adopt that practice permanently.

Complete List of "Some Common Questions"

Lesson 1

1. Are other forms of fruit as nutritious as fresh fruit?
2. Are the pesticides used on fruits and vegetables dangerous to my health?
3. Can I cut away any mold on the fruit and eat the rest?
4. Can supplements with vitamin A and vitamin C protect me from cancer?

5. Isn't fresh fruit much more expensive than canned fruit?

Lesson 2

1. What role does blood cholesterol level play in cancer risk?
2. What is the role of excess calories in cancer risk?
3. How can I use the nutrition label on packaged foods to lower my fat intake?

Lesson 3

1. What are retinoids and do they protect against cancer?
2. Does vitamin E have any protective effect against cancer?
3. Does barbecuing produce cancer-causing chemicals?
4. Can food additives cause cancer?

Lesson 4

1. Does having high iron levels in the blood increase cancer risk?
2. Does eating smoked foods increase risk?
3. Does frying meat affect risk?
4. Does eating salt-cured and salt-pickled foods increase cancer risk?
5. What role does selenium play in cancer risk?

Lesson 5

1. Is there a cancer epidemic in the United States?
2. Does alcohol abuse increase the risk of liver cancer?
3. What are the warning signs of cancer?
4. When I eat out, what can I do to reduce my cancer risk?

APPENDIX 2

Advertising pieces

- Paycheck stuffer
- Newsletter article, impersonal delivery
- Newsletter article, group meetings
- Electronic bulletin board message
- Recruitment brochures
- Recruitment poster
- Recruitment presentation

Paycheck stuffer

Eating 5 a Day can lower your risk of cancer!

Learn how to eat for health while guarding against cancer.

“Eat Five” is a set of learn-at-home lessons that:

- shows you a daily eating pattern that promises better health
- shows you how to lower fat in recipes and meals
- gives tips on buying, storing, and preparing fruits and vegetables
- provides low-fat fruit and vegetable recipes and useful fact sheets
- explains how to reduce your risk of common cancers

Lessons begin _____ For more information contact: _____

PENNSTATE



College of Agricultural Sciences

Penn State is an affirmative action, equal opportunity university.

Eating 5 a Day can lower your risk of cancer!

Learn how to eat for health while guarding against cancer.

“Eat Five” is a set of learn-at-home lessons that:

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- provides low-fat fruit and vegetable recipes and useful fact sheets
- explains how to reduce your risk of common cancers

Lessons begin _____ For more information contact: _____

PENNSTATE



College of Agricultural Sciences

Penn State is an affirmative action, equal opportunity university.

Newsletter article—impersonal delivery

Sign Up for Eat Five!

Learn how eating five fruits and vegetables a day can lower your risk of cancer. Enroll in "Eat Five," a set of lessons that:

- shows you a daily eating pattern that promises better health
- shows you how to lower fat in recipes and meals
- gives tips on buying, storing, and preparing fruits and vegetables
- provides low-fat fruit and vegetable recipes and useful fact sheets
- explains how to reduce your risk of common cancers
- can be completed at your convenience in your home

The lessons will be distributed one at a time, every (two) week(s). Your learning will be spread over (10) weeks. Each lesson will take about one hour to complete. You'll want to take additional time to try the recipes.

You can complete the lessons and try the recipes at your convenience during the period between lessons. So you can take advantage of this program without making a special trip or having to arrange for a babysitter. You can begin using the information right after you read the lesson.

The lesson series begins _____

The cost is _____

Please register in _____

by _____ Contact _____

at _____

for more information _____

Newsletter article—group meetings

Sign Up for Eat Five!

Learn how eating five fruits and vegetables a day can lower your risk of cancer. Enroll in "Eat Five," a set of lessons that:

- shows you a daily eating pattern that promises better health
- shows you how to lower fat in recipes and meals
- gives tips on buying, storing, and preparing fruits and vegetables
- provides low-fat fruit and vegetable recipes and useful fact sheets
- explains how to reduce your risk of common cancers
- can be completed at your convenience in your home

The lessons will be distributed one at a time at group meetings where you can taste food samples. At each 30-minute meeting, the leader will introduce you to the main points of each lesson. There will be five meetings (two) week(s) apart, so your learning will be spread over (10) weeks. After the meeting, each lesson will take you about

one hour to complete. You'll want to take additional time to try the recipes.

You can complete the lessons and try the recipes at your convenience during the period between lessons. So you can take advantage of this program without making a special trip or arranging for a babysitter. You can begin using the information right after reading the lesson.

Meetings will be held in _____

at _____ ROOM

beginning _____ COMPANY LOCATION

Cost is \$8.00 per person.

Please register by _____

For more information contact _____ DATE

at _____

LOCATION AND PHONE NUMBER

Electronic bulletin board message

Are you concerned about cancer? Do family members dislike vegetables? Learn how fruits and vegetables help fight off cancer. Find out about Eat Five. This set of five lessons begins (date). See (name) for information today.

Recruitment brochures and poster



Available from the Penn State College of Agricultural Sciences
Distribution Center

REDUCE YOUR RISK OF CANCER

Concerned about cancer?
Want to safeguard your family's health?
Family members dislike vegetables?

If any of these questions apply to you,
sign up today to receive the Eat Five lessons.

Classes begin:

Location:

You will learn:

- how to lower the amount of fat you eat
- how to increase the number of fruits and vegetables you eat
- how to reduce your risk of developing certain types of cancer

Pick up a brochure below for complete details.



Recruitment Presentation

Materials

Poster (1)

Brochures (many)

Vegetable tray: Cut up broccoli and kohlrabi on bed of kale with an onion dip.

No recipe provided; use a commercial dry mix that can be added to yogurt for the dip.

Script

Hello, my name is _____. I am an extension agent with Penn State Cooperative Extension, here in _____ county.

Look at this vegetable tray. I want you all to have a taste in a few minutes. First, tell me what these vegetables are. (Listen for names and affirm the right answers.)

You all may think of these as just vegetables—but to me these are foods that help prevent cancer. There are others as well. You will learn how to select and prepare foods that help prevent cancer in an exciting educational program that will be offered here. It is sponsored by your company and by Penn State Cooperative Extension.

How many of you have experienced cancer in your family? (Look for affirmation that some have.) Many of you have. I have relatives (you may personalize this) who have died from cancer as well. So all of us, you and I, need to reduce our risk. Experts think about half of all common cancers in men and women are partly due to what we eat. That's what this lesson series is about—learning what foods to eat to reduce our risk and why.

I encourage you to register for our five-part lesson series called "Eat Five." (Hold up the poster and a brochure.) Take a brochure or, better yet, sign up right here.

Impersonal Delivery

As a participant, you will receive one lesson every (one to two) week(s) from the personnel office (substitute for your situation). Each lesson contains:

- a background on diet and cancer,
- personal assessment worksheets,
- fact sheets about choosing and preparing foods to prevent cancer, and
- recipes.

You will need to set aside about 45 minutes to read the lesson and complete the worksheet.

Group Delivery

You and I will meet during your lunchtime for 30 minutes once every (one or two) week(s). We will share a tasty dish that features the food discussed in the lesson. I will introduce you to the high points in the lesson, and encourage

you to try one activity in the time between lessons. I will also share the lesson for that meeting with you.

Each lesson contains:

- a background on diet and cancer,
- personal assessment worksheets,
- fact sheets about choosing and preparing foods to prevent cancer, and
- recipes.

You will need to set aside an additional 45 minutes to read the lesson and complete the worksheet.

We also hope you'll attend a concluding meeting after the last lesson to taste a dessert that helps reduce your risk of cancer and to receive a certificate of completion. I bet you never knew there were desserts that were "good" for you.

Conclusion

Come up and take a sample from the tray.

Watch for this poster. (Hold it up). Complete the registration form in the brochure. Fill it out here and I can take it. Otherwise, drop it at the personnel office.

I'd be happy to answer any questions. Thanks for your attention.

APPENDIX 3**Letter to include with Lesson 5**

(Date)

Dear Eat Five Participant,

I hope you have enjoyed the Eat Five lessons you have received so far. This packet contains Lesson 5 and a brief questionnaire.

When you have read Lesson 5 and completed the worksheet, please fill out the questionnaire, which you will find at the end of the recipes. The questions require only that you check an answer. Your feedback will help me improve these lessons.

We will have our concluding meeting on (date) at (time) in (location). Please plan to attend. I will be presenting certificates of completion, answering questions, and sharing a special dessert. You may return the completed questionnaire to me at that meeting.

If you complete the questionnaire and return it by (date of concluding meeting), I will give you a refrigerator poster.

Thank you very much. See you at the meeting.

Sincerely,

APPENDIX 4

Group presentation script: Lesson 1

Materials

- Fruit Salad, in paper cups, ready to hand out
- Napkins, plastic spoons or forks, paper cups, ladle
- Measuring cup filled with colored items to indicate a half cup
- Copies of Fruit Salad recipe for participants
- Copy of Lesson 1 for your use
- Copies of Lesson 1 ready to pass out to participants
- Sign-in sheet and pencils

Visuals

1. Diagram of the Food Guide Pyramid
2. Food Guide Pyramid with dots and triangles
3. Diagram of the lower two layers of the Food Guide Pyramid
4. Drawing of fruit and an arrow

Meeting objectives

- Sign attendance sheet.
- Explain how meetings will be conducted.
- Present main point of Lesson 1: Food Guide Pyramid.
- Taste food sample.
- Give pep talk about trying recipes. Ask for a hand vote.
- Point out worksheet.
- Pass out Lesson 1.

Procedure

(Set out bowls of Fruit Salad, with napkins available.)

(Have seats set up in a circle if possible. This will encourage an informal atmosphere. Then introduce yourself and state your affiliation.)

Welcome

(Indicate pleased to see the audience.)

Explain meeting procedure

(Explain what participants can expect at the meetings. Discuss attendance sign-in sheet and select a volunteer to help you take attendance. Indicate when you will be meeting—every week or every two weeks—the time, and the location. Explain the content of the lessons.)

Each lesson contains a background section, some common questions and their answers, a worksheet, one or more fact sheets, and a set of recipes. The presentation I make at each meeting will cover one or two of the major points of the

background section for the lesson. You will need to read the entire lesson at home to get the full benefit. The material covered in the meeting will help you quickly understand the rest of the lesson.

Questions?

Lesson 1: Food Guide Pyramid

Lesson 1 introduces the Food Guide Pyramid. The pyramid was established as a guide to help you select foods that you need daily for a healthy diet. Following the recommendations of the pyramid supports your health.

(Show visual 1—diagram of Food Guide Pyramid)

The pyramid is made up of six food groups (point them out and name them). Look first at the bottom of the pyramid. These are the food groups that will be emphasized in these lessons.

The Bread, Cereal, Rice, and Pasta Group make up the bottom of the pyramid. It's at the bottom because you need the most servings from this group. This is the basis for health. You need between 6 and 11 servings each day.

Right above are the Vegetable Group and the Fruit Group. It's recommended that you eat three to five servings from the vegetable group and two to four servings from the fruit group each day.

Above the vegetable group is the Milk, Yogurt, and Cheese group. Next to this is the Meat, Poultry, Fish, Dry Beans, Eggs, and Nut group. You need two to three servings from both of these groups each day.

At the very top of the pyramid is the group that includes fats, oils, and sweets. It includes food such as regular salad dressings, high-fat desserts, and cooking oils. Most of us will want to eat foods from this group sparingly.

A range of servings is recommended for each group. The exact number of servings that you may need depends on your age, sex, and your calorie needs. For example, a man who does heavy work would want to eat more servings from each group than a woman who does clerical work. The pyramid reminds us to eat a variety of foods every day from all the groups. This ensures we get the vitamins, minerals, and nutrients we need for a healthy diet.

(Show visual 2—Food Guide Pyramid with dots and triangles)

Throughout the pyramid you see dots and triangles in the background. The dots represent fat, found naturally in food and added to food. The triangles represent sugar added to food. The dots and triangles are found in all food groups,

but there are fewer in the lower groups and many at the top of the pyramid.

The lessons will focus on the foods at the base of the pyramid. These foods give us a lot of the energy we need. They also provide some important factors that help us reduce our risk of cancer.

(Show visual 3—diagram of the lower two layers of the Food Guide Pyramid)

These lessons focus on foods in the fruit and vegetable group. Fruits and vegetables contain factors that help reduce your risk of developing cancer.

Your goal should be to eat the minimum number of servings each day—two servings of fruits and three of vegetables will give you five a day. Does that sound like a lot?

A serving of fruit is only half a cup of chopped fruit or 3/4 cup of juice. And a serving of vegetable is one cup of raw leafy vegetables or half a cup of other vegetables. (Hold up the 1-cup measure half full.)

So it's actually not hard to get the minimum number of servings. (Give some examples.)

- glass of juice at breakfast
- piece of fruit at lunch
- carrot sticks at lunch
- peas and potatoes at dinner.

Remember 5 a Day—to remind yourself.

(Show visual 4—drawing of fruit and an arrow)

You need a minimum of two servings a day of fruit. That fruit can be fresh, canned, or frozen. The recipes in this lesson feature fruit—and here is another recipe which uses fresh, frozen, and canned fruit.

(Show the Fruit Salad and copies of the recipe. Have a participant help pass out the food while you talk.)

This Fruit Salad is easy to make ahead of time. Keep it in the refrigerator ready for a quick snack. It's also an easy way to get your fruit for the day. A cup of the fruit salad is two servings of fruit, and there is great variety in the serving.

Pep talk to try recipes

Each lesson has four different recipes that you can try at home, a total of 20 for the series. The recipes are related to what is discussed in a particular lesson, and each lesson packet contains tips on how to involve your children in

preparing the recipes. Some of the recipes tell you how to reduce the fat in the recipe; some have microwave directions, and some give time-saving tips. Please try several of the recipes. You may discover new family favorites.

(Ask how many in the audience try new recipes. If not too many say they do, have a brief discussion of barriers against trying them and ways to overcome these. For example, if family members are not used to new foods, suggest using a familiar food in a new way, e.g., mixing chopped greens with mashed potatoes as in Lesson 4.)

It would be great if everyone could try at least one of the recipes between each meeting. Then come back and tell the group what you thought of it. (Optional: instructor can discuss personal experience with the recipes in first lesson.)

Vote

Who is willing to try one of the recipes before the next meeting? (Ask for a show of hands.) Great, that's a good way to start off the lessons. The recipes can help you get the number of servings you need from the fruit group every day.

Closure

(Pass out the lesson or have it for them to pick up at the door.) Here is the first lesson. It includes much more than I covered today. Please read the whole lesson and the fact sheets. Reading the rest of the lesson may answer questions you have. If you still have questions, please write them on a card and bring it to the next meeting. I can try to answer your questions then.

(Ask for questions. You may need to limit questions at this meeting.)

(Show a copy of the worksheet.) Before you leave, I want to point out the worksheet in the lesson packet. Each lesson contains a worksheet for you to complete at home. The worksheet in Lesson 1 is the Fruit Check-up. It will help you keep track of how many fruits you eat now. Be sure to complete it. The results may surprise you. You'll use it again in Lesson 5.

Thank you for coming today. I'll see you at the next meeting on (date) at (time) right here. Any questions before you go? (Hand out lessons as participants leave.)

APPENDIX 5

Group presentation script: Lesson 2

Materials

- Chilled Broccoli with Lemon Dressing, dished out on paper plates or in paper cups
- Napkins, plastic forks, paper plates or cups, ladle
- Copies of Chilled Broccoli with Lemon Dressing recipe for participants
- Copy of Lesson 2 for your use
- Copies of Lesson 2, ready to pass out to participants
- Sign-in sheet and pencils
- "Help yourself" sign
- Activity sheet for recipe modification, ready to pass out
- Cards for questions

Visuals

1. Diagram of how cancer develops
2. Proposed role of fat as a promoter
3. Recipe card with low-fat substitutions

Meeting objectives

- Sign attendance sheet.
- Taste food sample.
- Collect questions about Lesson 1.
- Share experiences making the recipes.
- Present major points of Lesson 2: cancer development and role of fat.
- Work through the Chicken Divan activity.
- Encourage participants to modify a family recipe. Ask for a hand vote.
- Highlight the worksheet.
- Answer questions about Lesson 1.
- Pass out Lesson 2.

Procedure

(Arrange chairs in circle to encourage participation. Set up the food samples, napkins, plastic ware, and recipes where the participants can easily see them. If possible, have the food near the entrance so participants can easily pick it up as they enter. Place the "help yourself" sign next to the food.)

Welcome

(Welcome participants as they come in. Ask each to take a food sample and recipe, then be seated.)

(Pass around the sign-in sheet so they can sign in as you talk.)

I'm glad to see everyone back for the second meeting of the Eat Five lesson series.

Collect questions

(Collect cards with questions from Lesson 1. Ask those with questions to write them on cards you give out and pass them to the front. Having the questions in writing helps to organize them for answers at the end of the meeting. Explain that some of their questions may be answered by today's lesson.)

Discuss recipes/taste food

(Ask their opinion about today's recipe, Chilled Broccoli with Lemon Dressing.)

This is one of the recipes featured in Lesson 2. Lesson 2 discusses how to lower the fat in recipes.

Who tried a recipe from Lesson 1? How was it? (Let some people tell their comments. Try to summarize their experiences with an upbeat comment to encourage them to try another.)

Lesson 2: Fat and cancer development

Lesson 1 introduced the Food Guide Pyramid. Use the pyramid as a guide to balancing your food choices. This may reduce your risk of certain diseases such as cancer. Lesson 2 looks at how cancer develops.

Cancer is a fearsome disease. We all have relatives or family members touched by it. But we can do things to protect ourselves. The foods we eat affect our risk of cancer in several ways. I'm going to talk about one of those ways now.

(Show visual 1—diagram of how cancer develops)

The road to cancer begins when one cell in your body is changed by a "carcinogen." (Point to word.) Carcinogens are usually chemicals like those in tobacco smoke or those used in industry, like benzene. (Give other examples, e.g., asbestos.)

This one "cancer" cell (point to initiated cell) isn't that dangerous. Your body has lots of defense mechanisms and can even destroy this cell. So this isn't enough to cause cancer.

This first step is called initiation. It takes a very short time, 1-2 days.

There is another necessary step. The cancer cell has to grow and multiply. It needs things in order to do this. Promoters help the cancer cell grow and multiply (point to word "promotion"). The promotion stage takes years. That's the reason it's so hard to pinpoint the cause of cancer.

So two steps are needed: initiation (takes days) and promotion (takes years). Eventually, signs of cancer appear.

It turns out that something we get from food is a promoter.

(Show visual 2—proposed role of fat as a promoter)

Fat appears to act as a promoter (point to fat on diagram). A diet high in fat can increase your risk for developing some forms of cancer. It is thought to be a promoter for breast, colon, ovarian, and prostate cancer.

Studies have shown that Americans eat a lot of fat, about 34% of calories from fat, to be specific. The recommendation is to reduce the dietary fat intake to 30% of calories or less. No one says to cut out all fat. We do need some fat in our diet, but we need a lot less than we eat now.

There are various ways to reduce the fat in our diets. One way is to substitute fruits and vegetables for snacks that may be high in fat. This will help you reach the five servings of fruits and vegetables you need every day and lower the amount of fat in your diet.

(Show visual 3—recipe card with low-fat substitutions)

Another good way is to make small changes in the recipes you use every day. This Scalloped Potatoes recipe is a good example. In this recipe, two small changes were made. The butter which is usually added has been eliminated, and whole milk has been replaced by skim milk. The potatoes still have the rich, creamy texture you expect of scalloped potatoes, but you eat a lot less fat.

Chicken Divan example

Let's look at another recipe to see how you can lower the fat by making simple substitutions. (Hand out activity sheet.) This is a copy of the recipe for Chicken Divan. It's a basic recipe like something you may use at home.

The recipe calls for chicken or turkey, Cream of Chicken soup, mayonnaise, lemon juice, curry powder, broccoli, and bread crumbs. Which of these ingredients are sources of fat? (Wait for someone to respond with the chicken or turkey skin, or mayonnaise.) How can you reduce the fat in this recipe? (Wait for responses. If no one mentions the different ways, tell them: use lower-fat mayonnaise or fat-free mayonnaise, and remove the skin from the chicken or turkey). (Optional: give participants a minute to complete the questions on the handout and then ask them how they answered. You could also compare the difference in amount of fat in the recipe for different types of mayonnaise used.)

Pep talk to modify a recipe

Lesson 2 presents further tips for modifying the fat in our meals. The lesson has this fact sheet—a list of common foods and the fat they contain. (Hold up list.) Remember, a gram is about equal in weight to a paper clip. Translate the grams of fat for each of these foods into piles of paper clips.

If the pile gets bigger than a quarter cup, it's time to choose a lower-fat food.

Use this list and look at your recipes. Are there places where you might cut the fat? Try modifying a recipe you use at home.

Vote

(Ask who will try lowering the fat in one of their recipes? Ask for a show of hands.) Come back and share your experience with that change.

Highlight the worksheet

Before you can start reducing the fat in your diet, you need to know how much you are eating now. The worksheet in Lesson 2 can help you estimate how much fat you are eating. Try to complete it. It will help you see if you need to lower the fat in your diet. Keep the worksheet. You will use the results in Lesson 5.

Now I can answer questions. (Answer those on cards handed to you.)

Thank you for coming today. I will see you again on (date) at (time) right here. Please pick up Lesson 2 as you leave.

APPENDIX 6**Lesson 2 activity sheet for recipe modification****Chicken Divan**

Makes 6 servings. One serving (with chicken) contains 507 calories, 41 g fat, 70 mg cholesterol, 1097 mg sodium, 3 g dietary fiber, 1325 IU vitamin A, 37 mg vitamin C, 18 IU vitamin E.

- 2 cans cream of chicken soup
- 1 cup real mayonnaise (must be mayonnaise)
- 2 Tbsp lemon juice
- 1 tsp curry powder
- 2 boxes frozen chopped broccoli, cooked
- 2 cups chicken or turkey meat
- salt and pepper to taste
- 1/4 cup bread crumbs for top

To make sauce, mix together soup, mayonnaise, lemon juice, and curry powder. In casserole dish place a layer of broccoli, then a layer of chicken or turkey. Add salt and pepper to taste. Cover with sauce. Sprinkle with bread crumbs. Bake at 350°F for 35 minutes. Serve over rice.

What are the sources of fat in this recipe?

What substitutions can be made for the fat sources in this recipe?

See Lesson 2 for more information and suggestions.

Lesson 2 activity sheet for recipe modification (for instructor's use)

Chicken Divan nutrient analysis

If Hellman's Real Mayonnaise is used and if the skin is left on the chicken, one serving contains:

507 calories
41 g fat
70 mg cholesterol
1097 mg sodium
3 g dietary fiber
1325 IU vitamin A
37 mg vitamin C
18 IU vitamin E

If Hellman's Cholesterol Free, Reduced Calorie Mayonnaise is used and if the skin is left on the chicken, one serving contains:

371 calories
25 g fat
48 mg cholesterol
1102 mg sodium
3 g dietary fiber
1250 IU vitamin A
37 mg vitamin C
9 IU vitamin E

If Hellman's Cholesterol Free, Reduced Calorie Mayonnaise is used and if the skin is removed from the chicken before cooking, one serving contains:

350 calories
22 g fat
48 mg cholesterol
1103 mg sodium
3 g dietary fiber
1215 IU vitamin A
37 mg vitamin C
9 IU vitamin E

Sources of fat in the recipe

Ingredients	Calories	Fat (grams)
2 cans cream of chicken soup	95	6
2 Tbsp lemon juice	1	less than 1
1 tsp curry powder	1	less than 1
2 boxes frozen chopped broccoli, cooked	25	less than 1
1/4 cup bread crumbs	16	less than 1
2 cups chicken meat with skin	105	6
2 cups chicken meat with skin removed before cooking	85	3
1 cup regular real mayonnaise	264	29
1 cup Hellman's Real Mayonnaise	264	29
1 cup Hellman's Cholesterol Free Reduced Calorie Mayonnaise	127	13
1 cup Kraft Free Mayonnaise (fat free)	188	0

APPENDIX 7

Group presentation script: Lesson 3

Materials

- Pumpkin Spread with a nut bread, cut and ready to serve
- Napkins, plastic knives or spoons, paper plates
- Copies of Pumpkin Spread recipe for participants
- Copy of Lesson 3 for your use
- Copies of Lesson 3, ready to pass out to participants
- Sign-in sheet and pencils
- “Help yourself” sign
- Cards for questions

Visuals

1. Drawing of the body
2. Drawing of yellow vegetables and beta-carotene
3. Drawing of environmental factors
4. Drawing of yellow vegetables and an arrow

Meeting objectives

- Sign attendance sheet.
- Taste food sample.
- Present major points of Lesson 3: vitamin A.
- Highlight the worksheet.
- Share experiences with recipe modification from Lesson 2.
- Encourage involving children in food preparation.
- Encourage increased intake of dark yellow vegetables. Ask for hand vote.
- Answer questions.
- Pass out Lesson 3.

Procedure

(Arrange chairs in circle to encourage participation. Some participants may do this for you. Set up food samples, napkins, plastic ware, and recipes where participants can easily see them. If possible, have the food near the entrance so that participants can easily pick it up as they enter. Place the “help yourself” sign next to food.)

Welcome

(Welcome each one as he or she comes in. Ask each to take a food sample and recipe, then be seated.)

(Pass around the sign-in sheet so they can sign in as you talk.)

I am delighted to have you all back for the third lesson in the Eat Five series.

Collect questions

(Collect cards with questions from Lesson 2.)

I will now collect your questions about Lesson 2. (Ask to pass cards to you.) If you still have questions after today’s lesson, I’ll answer them at the end of the meeting. (You may want to answer one or two questions now.)

Taste food

What do you think about today’s recipe sample, the Pumpkin Spread? Do you like it? Pumpkin can be used in other ways besides in a pie. It is one of the dark yellow vegetables featured in Lesson 3.

Lesson 3: Epithelial tissue and cancer

In Lesson 2 we learned that two steps are necessary for cancer to develop, initiation and promotion. Initiation occurs when a carcinogen causes a normal cell to change into a cancer cell. A promoter is anything that encourages the cancer cells to outgrow normal cells.

Today we will look at one of the body’s major tissues and what you can do to lower your risk of developing cancer in that type of tissue.

(Show visual 1—drawing of the body)

Groups of similar cells make up tissues in the body. Your body has four types of tissue. Only one type continues to grow throughout your life. This is the epithelial tissue. It covers all of the surface of your body. Epithelial tissue includes the:

- skin
- part of the linings of the mouth, esophagus, stomach, and intestines
- part of the linings of the tubes in the kidney and bladder
- part of the linings of the lungs
- the linings of the ducts in the breast
- parts of the male and female reproductive organs

The four most common types of cancer for men and women are formed in the epithelial tissues.

- Men—lung, prostate, colon/rectal, and bladder. (Point to sites on body diagram.)
- Women—breast, lung, colon/rectal, and uterine. (Point to sites on body diagram.)

Think about it. It makes sense for continuously growing tissues to be at the greatest risk for cancer cell growth. To develop, cancer needs growing cells, and epithelial tissues are constantly being replaced by new cell growth. This makes epithelial tissue the most likely spot for cancer to develop.

You may be wondering what you can do to reduce this risk. Well, studies have shown that people who eat vegetables that are good sources of substances called “carotenoids” seem less likely to develop some cancers of the epithelial tissues.

Carotenoids, such as beta-carotene, are converted in your body to vitamin A. Vitamin A keeps epithelial tissues healthy, growing properly, and resistant to cancer growth.

(Show visual 2—drawing of yellow vegetables and beta-carotene)

What vegetables are good sources of carotenoids? Dark yellow vegetables such as squash, pumpkin, carrots, and sweet potatoes are good sources of beta-carotene. Corn is not. It has very little beta-carotene even though it is yellow.

It's important to eat five servings of fruit and vegetables every day. It's also a wise idea to eat a food that's a good source of beta-carotene at least two to three times a week as part of your 5 a Day. This is something you can easily do for yourself to reduce the risk of cancer.

Food is an environmental factor that affects our risk of cancer. Environmental factors are things to which we are exposed in the environment around us. Genetics or heredity plays a role in cancer, too. But we have the most control over environmental factors.

(Show visual 3—drawing of environmental factors)

Here are some examples of other environmental factors that may affect your risk when you are exposed to them. This is just a short list—there are many more.

- ultraviolet light
- some chemicals like benzene and asbestos
- natural hazards like radon
- smoking

You can take actions to reduce your exposure to these. (You may want to relate a personal action you have taken to reduce exposure to any of these factors.)

Highlight the worksheet

If you're wondering about being at risk for cancer, complete the Cancer Risk Assessment worksheet in Lesson 3. The Cancer Risk Assessment looks at genetic factors as well as environmental factors that may affect you. It also helps you think about changing habits to protect yourself. Complete the worksheet at home and save it to use in Lesson 5.

Sharing experiences modifying recipes

(Ask who tried modifying a recipe during the week. Ask the

volunteers to describe the result and any reactions. Be prepared for “it didn't taste good.” [Response: Don't cut all the fat—just some. Try cutting a third of it. Take small steps.] “The food had a different texture.” [Response: Fat serves a purpose in food. Sometimes you need to replace what you removed with fruit pulp or water.] “My family didn't notice a thing.” [Response: Shows what you can get away with.]

Pep talk to involve children in food preparation

It sounds as if you're having some new experiences in the kitchen. Did anyone notice the Children and Teenagers in the Kitchen page in the lesson packet? This page suggests ways to involve your children in preparing food and in learning to make healthful food choices.

Do anyone's children help out in the kitchen? (Ask for hands. If people volunteer, ask for experiences and ideas that have worked for their family.)

(Show visual 4—drawings of yellow vegetables and an arrow)

Children can be great helpers in the kitchen. Encourage those who have a natural interest. Having assigned duties can help spur interest if you rotate responsibilities.

Try to get your children involved in helping to prepare one of the recipes from Lesson 3 this coming week. They may be more willing to try the food if they help make it. This is a good way to get them to try new vegetables and to eat the two to three servings a week of dark yellow vegetables that they need, too. Try involving your child in food preparation this week. Share your experiences at the next meeting.

Vote

Before we close today's meeting, let's have one last show of hands of everyone who plans to serve at least one more dark yellow vegetable this week. (Wait for response.) Good.

Answer questions and closure

(Answer the questions collected earlier.)

Please pick up Lesson 3 as you leave. I will see you again on (date) at (time) right here. Thank you for coming today.

APPENDIX 8

Group presentation script: Lesson 4

Materials

- Kale and Rice, dished out in paper cups, ready to serve
- Napkins, plastic forks or spoons, paper cups, ladle
- Copies of Kale and Rice recipe for participants
- Copy of Lesson 4 for your use
- Copies of Lesson 4, ready to pass out to participants
- Sign-in sheet and pencils
- “Help yourself” sign
- Cards for questions

Visuals

1. Drawing of vitamin-C-rich foods
2. Types of fiber
3. Fiber and sources
4. Drawing of ways to get more fiber

Meeting objectives

- Sign attendance sheet.
- Taste food sample.
- Collect questions on Lesson 3.
- Share experiences about involving children.
- Present major points of Lesson 4: vitamin C and cancer.
- Encourage participants to increase their intake of fiber. Ask for a hand vote.
- Answer questions on Lesson 3.
- Pass out Lesson 4.

Procedure

(Have everyone sit in a circle, if possible. Welcome each one as he or she comes in. Ask each to take a food sample and recipe, then be seated.)

Welcome

(Pass around the sign-in sheet so they can sign in as you talk.) It's good to see everyone again. I'm glad you could make it for the fourth lesson in the Eat Five series.

Collect questions

(Collect cards with questions from Lesson 3. Answer one or two now; say the rest will be answered at the meeting's end.)

Taste food/discuss recipes

What do you think about today's recipe, the Kale and Rice? Kale is a vegetable featured in Lesson 4. It may seem strong-tasting to some of you. To increase its acceptability, you can chop it fine and mix it with rice and cheese.

Who tried a recipe from Lesson 3? How was it? (Let some people share their experiences. Summarize their experiences with an upbeat comment to encourage them to try another.)

Did anyone involve their children in food preparation last week? What happened? (Get a few responses before you move on.)

Lesson 4: vitamin C and cancer

In Lesson 3 we found that eating dark yellow vegetables that are good sources of carotenoids, such as beta-carotene, can help reduce our risk of developing some forms of cancer. In this lesson we'll discuss how foods with vitamin C can help prevent cancer, too.

(Show visual 1—drawing of vitamin-C-rich foods)

Scientists have found that people who eat foods rich in vitamin C have less chance of developing stomach and throat cancer. Remember that the stomach and throat linings are made up of epithelial tissue, the tissue that is susceptible to cancer because its cells continue to grow over one's lifetime.

Foods rich in vitamin C provide this protection. Vitamin pills are less likely to provide such protection. Foods rich in vitamin C may also be good sources of other protective factors like carotenoids. So the protection may be from vitamin C, something besides the vitamin C, or a combination of things. This is still being studied.

While eating a variety of foods rich in vitamins A and C will not cure cancer, it does seem to help prevent some types of cancer from developing.

Many of the fruits and vegetables rich in vitamins A and C are also good sources of fiber. Let's look at dietary fiber. Many of you have heard about fiber in advertisements. But what is dietary fiber? Basically, it is the part of plant foods that your body cannot break down. One thing fiber does is to provide bulk in your digestion system.

(Show visual 2—types of fiber)

There are two types of fiber: soluble fiber, which holds water and acts like a sponge; and insoluble fiber, which cannot hold water but provides bulk. (Point to each.) Most plant foods have a mixture of both soluble and insoluble fiber. Some plants may be richer in one type than others. It is good to eat foods that give you both types of fiber.

Many studies have shown that a diet high in fiber seems to lower the occurrence of colon cancer. But no one is certain if this is because of the fiber itself or because of other substances in the food. Again, many foods high in fiber are

also good sources of carotenoids, like the dark green, leafy vegetables.

Motivational pep talk

(Show visual 3—fiber sources)

Let's look at a few good sources of fiber. (Review the list on the visual.)

The average American eats about 11-17 grams of fiber a day; women about 10 grams and men about 17 grams. The National Cancer Institute recommends you double that amount. Increase the amount of fiber slowly so that your body can adjust to the increase over time and you don't feel any discomfort. Drink at least 8 cups of liquid a day as you do this. Drinking more liquid will help your body adjust to consuming more fiber.

(Show your copy of the fact sheet.)

When you get your lesson packet, check out the fact sheet entitled, "How to Eat More Fiber." It gives you tips on ways to increase the fiber in your diet. It also suggests more good sources of fiber. The easiest way to get fiber is by eating five servings of fruit and vegetables each day. You can do this at meal time and by eating snacks between meals. Just to give you an idea of ways to substitute high-fiber food for low-fiber foods, let's look at this illustration.

(Show visual 4—drawing of ways to get more fiber)

(Point out how the food crossed out can be replaced by the other food.)

Vote

These are foods you can eat every day. So maybe that is something to work on this week. Let's try to increase your fiber intake this week. Start by substituting one high-fiber food for a lower-fiber food each day. Let's see who will try. (Ask for a show of hands.) Tell me how you did at the next meeting.

Answer questions and closure

Now I can answer questions. (Answer questions on cards handed to you.)

Please pick up Lesson 4 as you leave. Remember to try at least one of the recipes in Lesson 4. I will see you again on (date) at (time) right here. Thank you for coming today.

APPENDIX 9

Group presentation script: Lesson 5

Materials

- Dill Dip, ready to serve
- Fresh carrots, broccoli, and other vegetables, cut into serving sizes
- Napkins, plastic forks or spoons, paper plates
- Copies of Dill Dip recipe for participants
- Copy of Lesson 5 for your use
- Copies of Lesson 5, ready to pass out to participants
- Sign-in sheet and pencils
- “Help yourself” sign
- Cards for questions

Visuals

1. Drawing of cruciferous vegetables
2. Pathway of cancer
3. Boat named alcohol
4. Drawing of new nutrition label

Meeting objectives

- Sign attendance sheet.
- Taste food sample.
- Share experiences with the recipes, children in the kitchen, and getting more fiber.
- Present major points of Lesson 5: cruciferous vegetables.
- Encourage each participant to use the Nutrition Facts Panel.
- Highlight worksheet, encourage participants to commit themselves to one action to reduce risk of cancer.
- Answer questions on Lesson 4.
- Pass out Lesson 5.

Procedure

(Have everyone sit in a circle, if possible. Welcome each one as he or she comes in. Ask each to take a food sample and recipe, then to be seated.)

Welcome

(Pass around the sign-in sheet so they can sign in as you talk.)

I'm glad to see everyone back for the fifth meeting of Eat Five.

Collect questions

(Collect cards with questions from Lesson 4.)

Anyone with questions can give me their card now. If you still have questions after today's lesson, I'll answer them at the end of the meeting. (You may want to answer one or two questions now.)

Taste food/discuss recipes

What do you think about today's recipe, the Dill Dip? (Wait for some responses.) It goes great with different vegetables, especially the cruciferous vegetables featured in Lesson 5.

Who tried a recipe from Lesson 4? How was it? (Let some people share their experiences.) Who was able to try a higher-fiber food?

Lesson 5: cruciferous vegetables

In Lessons 3 and 4 we found out how vitamins A and C and fiber can help reduce the risk of developing some forms of cancer. In today's lesson, we will look at the role cruciferous vegetables can play in preventing cancer and the effect alcohol can have.

(Show visual 1—drawing of cruciferous vegetables)

“Cruciferous” is the Latin name for a family of plants that includes broccoli, turnips, kohlrabi, Brussels sprouts, and different types of cabbage. These foods contain natural forms of anticarcinogens.

Let's look at how natural things found in cruciferous foods affect the pathway to cancer development.

(Show visual 2—pathway of cancer)

Carcinogens like benzene or the components of cigarette smoke technically are really precarcinogens. They have to be modified to become a dangerous carcinogen.

This is shown here (point to precarcinogen in visual). A carcinogen is formed from a precarcinogen. Usually something in your body causes this change. Once the precarcinogen is converted to a carcinogen, it can start the initiation step that changes a normal cell into a cancerous cell.

Foods contain both natural and artificial substances that can block a carcinogen's action. (Point to spaces between normal and initiated cells and between initiated and promoted cells.) These substances are called anticarcinogens. They can block the changing of a precarcinogen to a carcinogen (point to spot); they can block the initiation step (point to spot); and they can block the promotion process (point to spot).

A good analogy is epoxy glue. To become sticky, epoxy glue requires that you mix together two substances, a catalyst and the raw glue. The mixing of the catalyst and the glue produces the “very sticky” glue. This is like converting

the precarcinogen to the carcinogen. An anticarcinogen is something that:

- destroys the catalyst so that no active glue formed, or
- prevents the active glue from sticking (point to initiation and promotion).

(Ask for questions so you can clear up any confusion.)

Cruciferous vegetables contain natural anticarcinogens. (Point to the shield with broccoli on diagram.) Natural anticarcinogens appear to affect this step—they block the changing of a precarcinogen to a carcinogen.

So eating cruciferous vegetables gives you natural substances that help prevent the very first step toward cancer.

Remember—cruciferous vegetables include broccoli, turnips, kohlrabi, Brussels sprouts, and different types of cabbage. You don't have to eat a lot of these vegetables, just in moderate amounts. A serving once or twice a week is sufficient.

(Show visual 3—boat named alcohol)

You saw how substances in cruciferous vegetables can block the action of carcinogens. Did you realize that alcohol seems to have the opposite effect?

Alcohol isn't a carcinogen, but it may act like a solvent. (Point to the boat.) A solvent is like a boat—it carries things in it. Alcohol may help carry a precarcinogen into the body where it can be changed into a carcinogen.

Drinking even moderate amounts of alcohol is associated with a higher risk of certain cancers. Alcohol and smoking appear to interact, increasing that risk even more.

So, if you drink, do so in moderation. This lesson tells you what "moderation" means in actual drinks.

Now that you have heard how foods low in fat and rich in vitamin A, vitamin C, and fiber can help reduce your risk of developing some cancers, you may wonder how you can tell if a packaged processed food is a good nutritional choice. The best way is to look at the nutrition label on the food product. The fact sheet in Lesson 5, entitled Using Nutrition Labels to Reduce Your risk of Cancer, can help.

(Show visual 4—drawing of new nutrition label)

This is the Nutrition Facts panel. Look for it on the foods you buy. How many of you have seen this panel? (Wait for show of hands or nodding of heads.)

(Point to the parts of the label as you talk.)

The label lists the amounts in the food of:

- fat,
- saturated fat,
- dietary fiber,
- vitamin A, and
- vitamin C

Use this listing to check out the nutrient content of foods. Look for foods that are low in fat and saturated fat; and foods that are high in dietary fiber and vitamins A and C.

The label has a handy new tool—the % Daily Value. This is the percentage one serving of this food provides toward the amount of a nutrient you need daily. Use it to compare like foods, and use these rules of thumb:

- for fat and saturated fat, choose more often the food with the lower % DV
- for dietary fiber and vitamins A and C, choose more often the food with the higher % DV.

I know we covered a lot of information in these past five (or ten) weeks. We have one more meeting. I can answer a lot of questions at that meeting. Our last meeting will be on (date) at (time) right here. We will give you a helpful refrigerator poster when you return the questionnaire and a certificate for completing the lesson series. Everyone has been wonderful, and we will have a special dessert to celebrate. If you still have remaining questions then, I'll be happy to answer them.

Highlight work sheet

Before you go, I would like to point out two more things in Lesson 5. First, the worksheet. I hope that everyone has been doing the worksheet for each lesson. Take a few minutes this coming week to look over your worksheets from Lessons 1 to 4. Think about what you learned from them, and what you can do to reduce your risk of cancer. Then complete the worksheet in Lesson 5 and set a goal of one thing to practice that will help protect your health. Remember, it's the small step-by-step changes that really make the difference.

Second, I have really enjoyed presenting these lessons to you. We would like you to tell us what the Eat Five lessons did for you. Please complete the questionnaire in the Lesson 5 packet and bring it with you the next time we meet.

Answer questions and closure

I will see you again on (date) at (time) right here. Please pick up Lesson 5 as you leave. Thank you for coming today. See you next time.

APPENDIX 10

Concluding meeting script

Please use this script to conduct the concluding meeting for participants receiving the lessons by group meetings and by impersonal delivery.

Materials

- Banana Nut Bread, cut and ready to serve
- Strawberry Dessert Sauce, ready to serve
- Napkins, plastic forks or spoons, paper plates
- Serving spoon for the Strawberry Dessert Sauce
- Copies of the recipes for participants
- Sign-in sheet and pencils
- "Help yourself" sign
- Refrigerator posters
- Extra postcourse questionnaires and return envelopes (unstamped)
- Extra stamps (if needed)
- Certificate of Appreciation for company representatives
- Certificates of Completion for participants
- Camera and flash

Meeting objectives

- Sign attendance sheet.
- Taste food sample.
- Collect postcourse questionnaires and pass out refrigerator posters.
- Share experiences in making the recipes and involving children in the kitchen.
- Briefly summarize the lessons.
- Answer questions.
- Present Certificates of Completion and Appreciation.
- Take a group photo.

Procedure

(Have everyone sit in a circle if possible. Welcome each participant as he or she comes in. Ask each to take a food sample and recipe, then be seated.)

Welcome

(Pass around the sign-in sheet so they can sign in as you talk.)

I'm glad to see everyone here for the concluding meeting of the Eat Five lesson series.

Collect postcourse questionnaires

First, I would like to collect the completed questionnaires from Lesson 5. Does anyone have a question about the

form? Any comments about it? (Collect them and present a refrigerator poster to everyone attending.)

Taste the food/discuss recipes

What do you think about the Banana Nut Bread? The Strawberry Dessert Sauce really tops it off. (Wait for some responses.)

Does anyone have experiences to share about any of the recipes in the Eat Five lesson series? (Wait for responses.)

How about your children? Did they enjoy helping out in the kitchen? (Wait for responses. Encourage them to keep trying all the recipes and to keep children involved.)

Summarize lessons

The Eat Five lessons have presented a lot of information, and I would like to summarize that information:

- the Food Guide Pyramid and the benefits of eating five fruits and vegetables a day.
- the role of fat in cancer development and how to lower the fat in recipes and meals.
- how dark yellow vegetables help lower the risk of certain types of cancers.
- why eating dark green, leafy vegetables is important.
- why cruciferous vegetables need to be included in five a day.

I would be happy to answer questions. Now that you have read the lessons, it will be very important to answer any questions you still have. (Answer questions and refer back to the lessons as you do so.)

Motivational pep talk

I know some of this information may be new to you. Please don't feel overwhelmed. If you can adopt one new food practice, that's a step in the right direction to a healthier diet. Once you master that new practice, try for another. Keep the lessons as a handy reference and an inspiration to keep going. And keep getting your children involved in preparing food and learning about healthful eating habits. Everyone can eat 5 a Day. (Encourage participants to go the library or to contact the American Cancer Society for more information.)

Present Certificate of Completion

Now I want to present each of you with a Certificate of Completion for successfully finishing the Eat Five lessons. I hope each of you is on the way to a more healthful way of eating and enjoying good food. (Pass out certificates.)

I would also like to give (name of company representative) a Certificate of Appreciation for allowing me to come here and present this lesson series.

(Mention if you saw any of the company's staff at any of the lesson meetings.) It's nice to know this company is concerned about its employees and wants to help them take action to protect their health.

(Mr. or Ms. manager name), please accept this certificate as a token of my appreciation to (company's name) for allowing me to come here. It has been an honor to meet with everyone and to present the Eat Five lessons. I hope I will be invited back in the future to present other programs.

(If you want to, mention other educational information available to the company or individuals through Penn State Cooperative Extension.)

Group photo

(Gather everyone for a group photo. Take the picture and tell the company's representative you will send a copy to put on the employees' notice board.)

Did anyone complete the postcourse questionnaire during the meeting? (Collect questionnaires. Encourage the other participants to complete it and send it in; give a deadline.)

Please help yourself to more of the Banana Nut Bread and sauce. And thank you for coming today.

APPENDIX 11

Recipes for group presentations and concluding meeting

Lesson 1: Fruit Salad

Lesson 2: Chilled Broccoli with Lemon Dressing

Lesson 3: Pumpkin Spread

Lesson 4: Kale and Rice

Lesson 5: Dill Dip

Concluding meeting: Banana Nut Bread with Strawberry Dessert Sauce

Fruit Salad

2 medium apples, cored, unpeeled

2 medium oranges

2 cups grapes

6 fl oz frozen pineapple juice, diluted

16 oz frozen strawberries, unsweetened

20 oz canned pineapple chunks

2 medium kiwi

2 medium bananas

Yield: 24 servings (1/2 cup)

Procedure: Cut apples into bite-sized chunks. Peel orange and divide into sections. Peel and slice kiwi and bananas. Mix all ingredients together and serve.

Nutrient content per serving:

58 calories	36 IU vitamin A
0 fat	29 mg vitamin C
0 cholesterol	0 vitamin E
1 mg sodium	2 g dietary fiber

Chilled Broccoli with Lemon Dressing

1 large bunch broccoli, separated into spears or chopped into bite-sized pieces

1/4 tsp paprika

1/4 cup lemon juice

1/2 tsp honey

1 clove garlic, finely minced

1 Tbsp onion, finely chopped

2 Tbsp vegetable oil*

2 Tbsp water

Salt and pepper to taste

Yield: 4 servings

Procedure: Steam broccoli until just tender; drain well and refrigerate until ready to serve. Combine all remaining ingredients. Pour over chilled broccoli, mix well. Serve cool. You may garnish with a chopped hard-boiled egg, if desired.

Nutrient content per serving:

120 calories	1778 IU vitamin A
7 g fat	78 mg vitamin C
0 cholesterol	1 IU vitamin E
314 mg sodium	6 g dietary fiber

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*Source of fat

Pumpkin Spread

- 1 cup yogurt cheese (see below)
- 1/2 cup canned pumpkin
- 3 Tbsp confectioner's sugar (or more to taste)
- 1 1/2 Tbsp orange juice concentrate
- 1 tsp fresh, grated orange rind

Yield: 32 servings (1 Tbsp)

Procedure: Mix ingredients together thoroughly and refrigerate for several hours so that flavors blend. Variation: Use pumpkin pie spice instead of orange rind, if a strong orange flavor is not desired.

Nutrient content per serving:

15 calories	434 IU vitamin A
0 fat	1 mg vitamin C
1 mg cholesterol	0 vitamin E
11 mg sodium	0 dietary fiber

Yogurt Cheese

- 2 cups low-fat or nonfat plain yogurt

Yield: 4 servings (1/4 cup) of "cheese"

Procedure: Concentrate the goodness of yogurt by draining it overnight. Line a large strainer or nonrusting colander with a double thickness of cheesecloth or three layers of quality plain white paper towels or overlapping coffee filter papers. Spoon plain low-fat or nonfat yogurt into the strainer. Place a bowl under the strainer to catch the whey that drains from the yogurt. (Two cups yogurt will produce 1 cup liquid whey.) Cover with plastic wrap and refrigerate overnight or up to 24 hours. Refrigerate in a covered container and use within 4-5 days.

Note: The solids can be used as a replacement for cream cheese and sour cream in recipes for spreads, dips, and most desserts. Do not use when sour cream is to provide fat as in cream cheese pastry. Use yogurt without added gelatin for this purpose, if possible.

Nutrient content per serving:

78 calories	90 IU vitamin A
2 g fat	0 vitamin C
7 mg cholesterol	0 vitamin E
86 mg sodium	0 dietary fiber

Kale and Rice

- 2 cups cooked rice, white or brown
 - 1 cup part skim milk mozzarella cheese, grated*
 - 1 whole egg, beaten*
 - 3 egg whites, beaten
 - 2 Tbsp chopped parsley
 - 1/2 tsp salt
 - 1/8 tsp black pepper
 - 1 lb kale or other dark green, leafy vegetable
 - 2 Tbsp soft, whole-grain bread crumbs
 - 2 Tbsp wheat germ
- Yield:** 6 servings

*Source of fat

Cool, drain, and chop. In an oiled casserole, lay alternate layers of rice and kale mixture, ending with rice mixture. Combine wheat germ and crumbs, and top casserole with the mixture. Bake at 350°F for 30 minutes.

Note: This recipe may be substituted for a meat main dish because, eaten together, the eggs, cheese, and rice supply quality protein. Any dark green, leafy vegetable (spinach, chard, turnip greens) may be used in place of kale. For a nuttier flavor, try using brown rice rather than white.

Nutrient content per serving:

196 calories	944 IU vitamin A
5 g fat	8 mg vitamin C
46 mg cholesterol	1 IU vitamin E
329 mg sodium	2 g dietary fiber

Procedure: Preheat oven to 350°F. Combine the cooked rice, cheese, and beaten eggs. Add parsley, salt, and pepper. Wash kale, strip off leaves, and steam until almost tender.

Adapted from *The Green Thumb Cookbook* © 1977 by Rodale Press, Inc. Permission granted by Rodale Press, Inc., Emmaus, PA 18049.

Dill Dip

- 2 cups low-fat cottage cheese
- 1 Tbsp fresh parsley
- 4 Tbsp buttermilk
- 1 Tbsp chopped onion
- 1 1/2 tsp lemon juice
- 1 1/2 tsp dill weed
- 1/4 cup low-calorie mayonnaise*
- 1 1/2 tsp Beau Monde seasoning†

Yield: 48 servings (1 Tbsp)

* Source of fat

†Beau Monde (made by Spice Islands®) is a mixture of salt, dextrose, onion, and celery seed. If it is not available, use 1/2 to 1 tsp seasoned salt, a bouquet garni, or a reduced-calorie salad dressing mix.

Procedure: Blend the first three ingredients in blender to make “mock sour cream.” Add mayonnaise, parsley, onion, and seasonings. Blend well. Serve this in a hollowed-out red cabbage.

Nutrient content per tablespoon:

14 calories	16 IU vitamin A
1 g fat	0 vitamin C
1 mg cholesterol	0 vitamin E
59 mg sodium	0 dietary fiber

Adapted from *The Best from the Family Heart Kitchens* by S. L. Conner and W. E. Conner, The Oregon Health Sciences University, Portland, OR, 1983.

Banana Nut Bread

- 2 1/2 cups flour
- 1/2 cup apple sauce
- 1 tsp baking soda
- 1 cup sugar
- 2 tsp baking powder
- 1 whole egg*
- 1/2 tsp nutmeg
- 2 egg whites
- 1 1/2 tsp cinnamon
- 3 very ripe bananas
- 1/4 cup walnuts (optional)*
- 1 tsp vanilla

Yield: 16 slices

* Source of fat

Procedure: Preheat oven to 350°F. Mix flour, baking soda, baking powder, spices, and walnuts in a bowl. Set aside. In another bowl mix the rest of the ingredients. Add the flour mixture to the wet ingredients, and stir until blended. Use the nonstick cooking spray to coat a 9-by-5-inch pan. Pour batter into pan. Bake 50-60 minutes, or until a toothpick inserted in the bread comes out clean.

Nutrient content per slice:

160 calories	32 IU vitamin A
2 g fat	2 mg vitamin C
12 mg cholesterol	0 vitamin E
109 mg sodium	1 g dietary fiber

Strawberry Dessert Sauce

- 1 cup whole strawberries (fresh or frozen)
- 1/3 cup apple juice
- 1 cup sliced strawberries
- 1/2 cup plain low-fat yogurt

Yield: about 2 cups (32 Tbsp)

Procedure: Puree whole strawberries with apple juice in a food processor or blender. Stir in sliced strawberries and gently fold in yogurt.

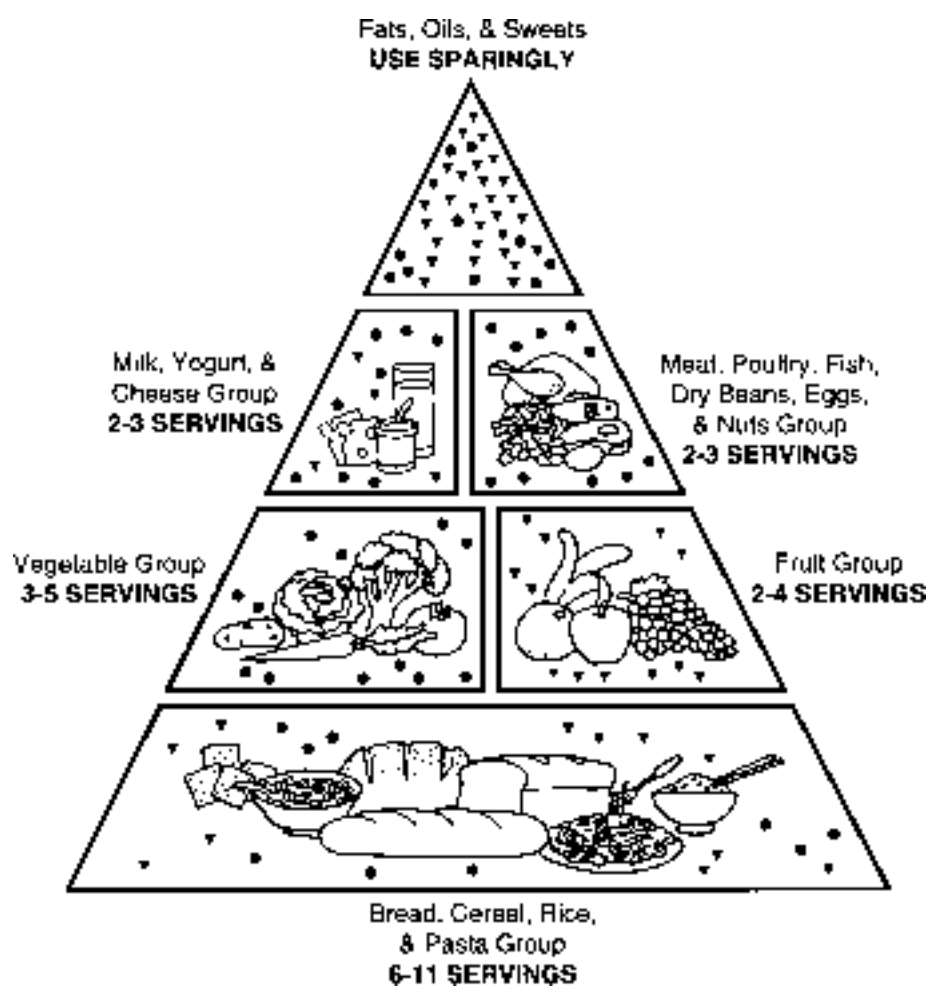
Nutrient content per tablespoon:

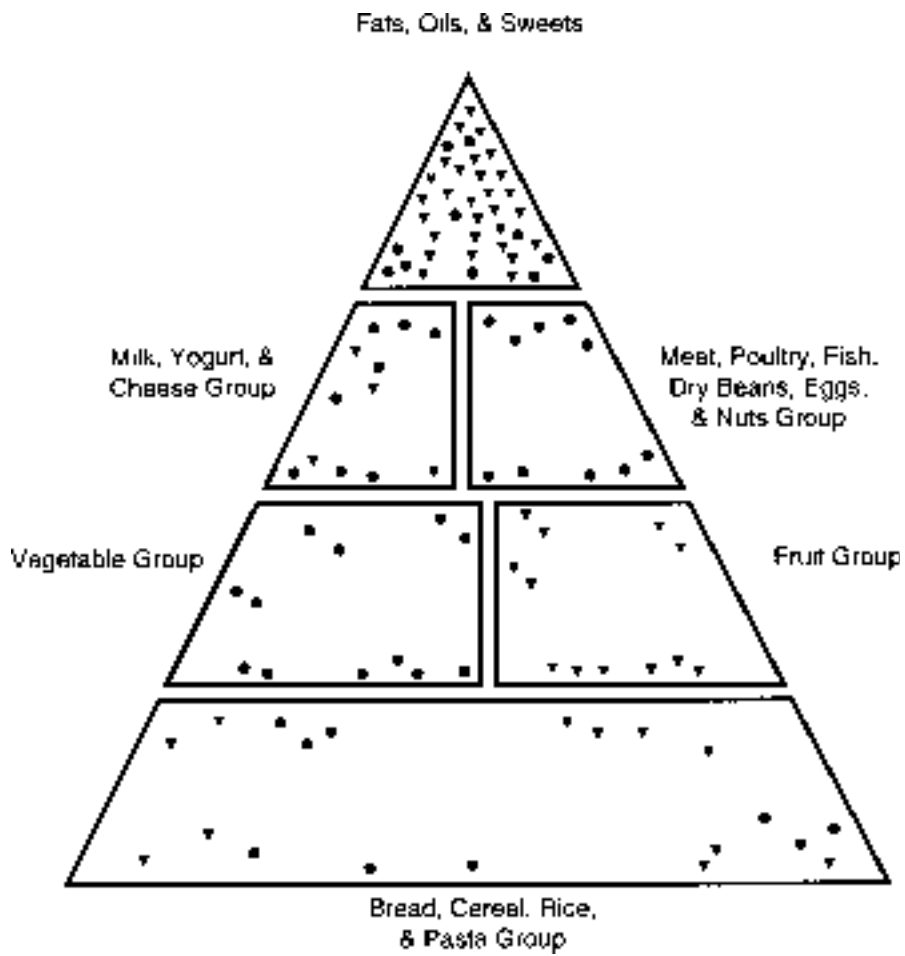
7 calories	4 IU vitamin A
0 fat	7 mg vitamin C
0 cholesterol	0 vitamin E
3 mg sodium	0 dietary fiber

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APPENDIX 12

Overheads

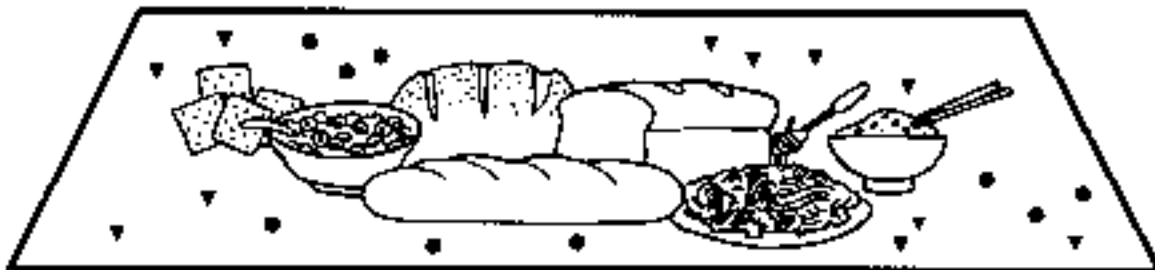


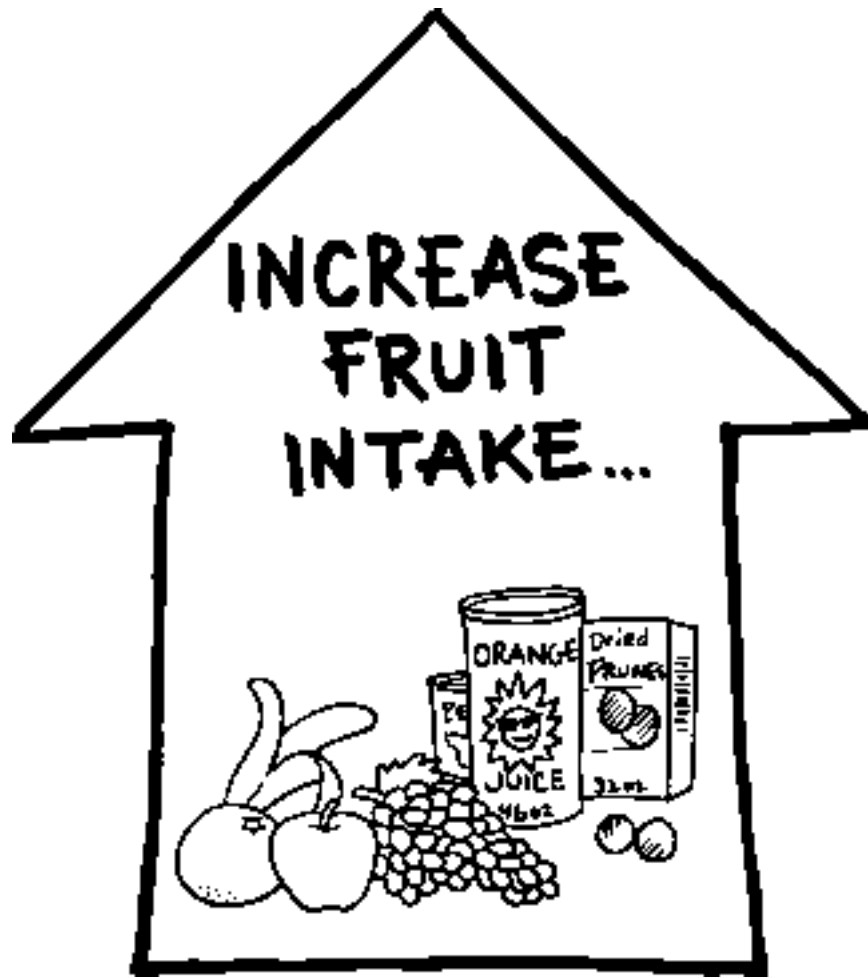


Vegetable Group
3-5 SERVINGS

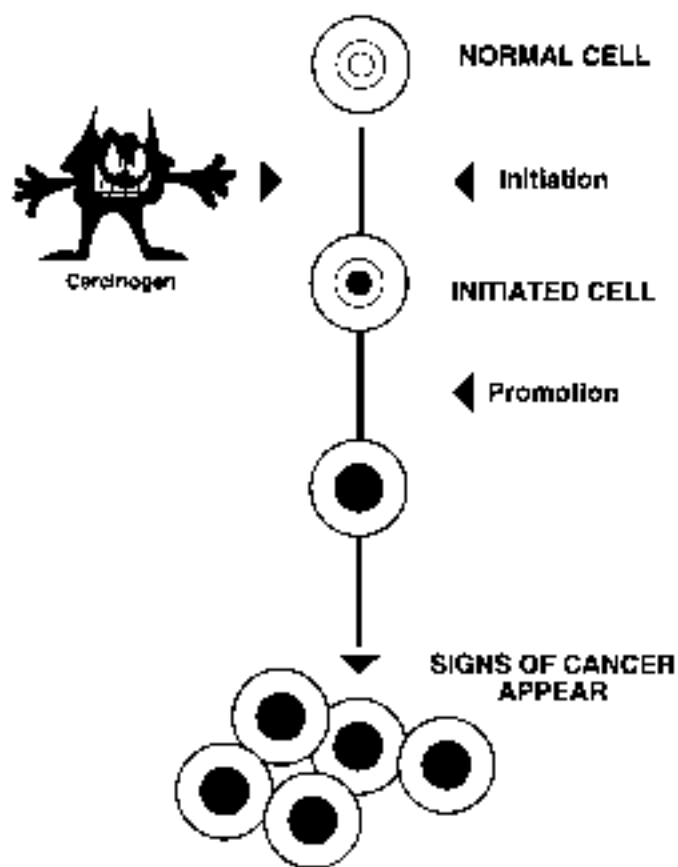


Fruit Group
2-4 SERVINGS

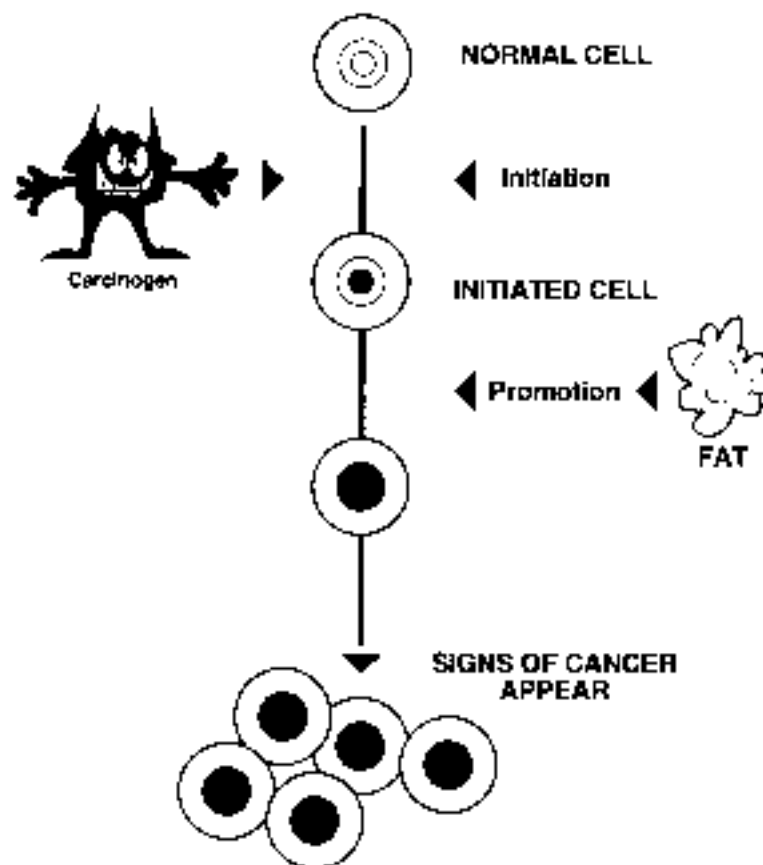




How Cancer Develops



How Cancer Develops



Scalloped Potatoes

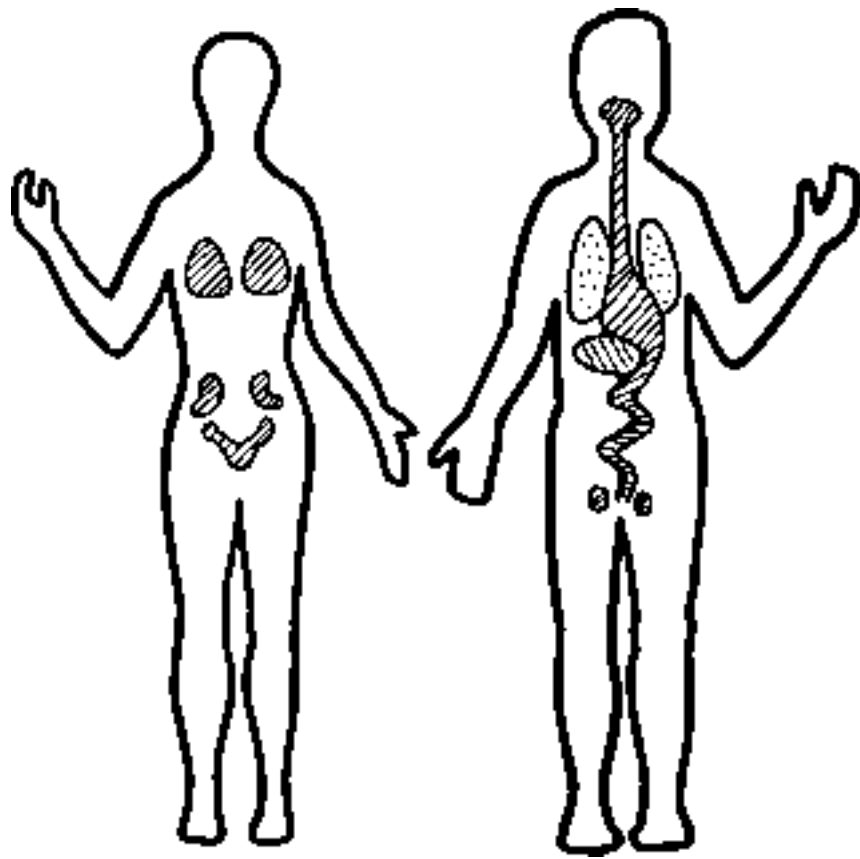
Serves 4 to 6

1 ~~qt~~ Tbsp ^{Soft} butter ^{MARGARINE} 1/2 cups ^{skim} milk
1 Tbsp flour salt & pepper to taste
4 potatoes, peeled & sliced 1 onion - chopped fine

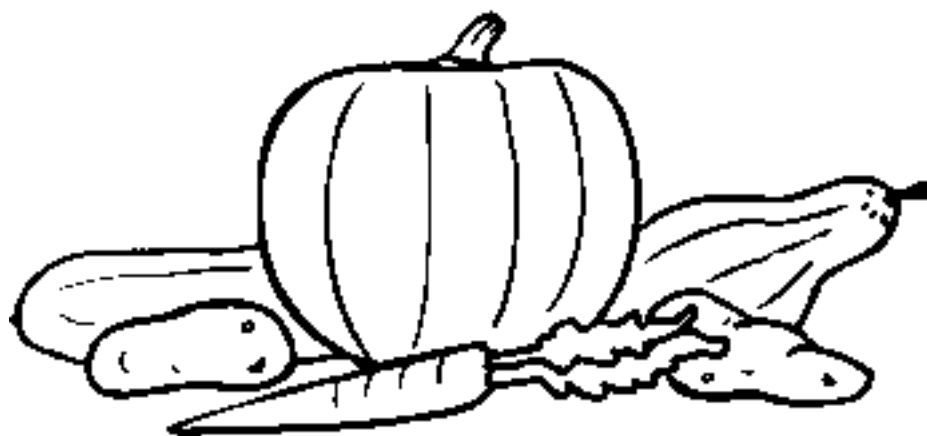
Melt ^{Soft} butter ^{MARGARINE}, stir in flour. Slowly add ^{skim} milk.
Cook and stir over low heat until thickened.

Add salt & pepper to taste.
Put potatoes and onion in a buttered baking dish.

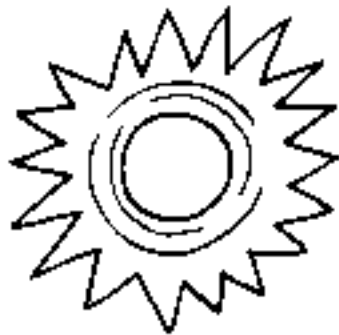
Pour sauce over top.
Bake at 350° until tender (Almost 1/4 hours).



B Carotene



Environmental Factors



UV



RADON

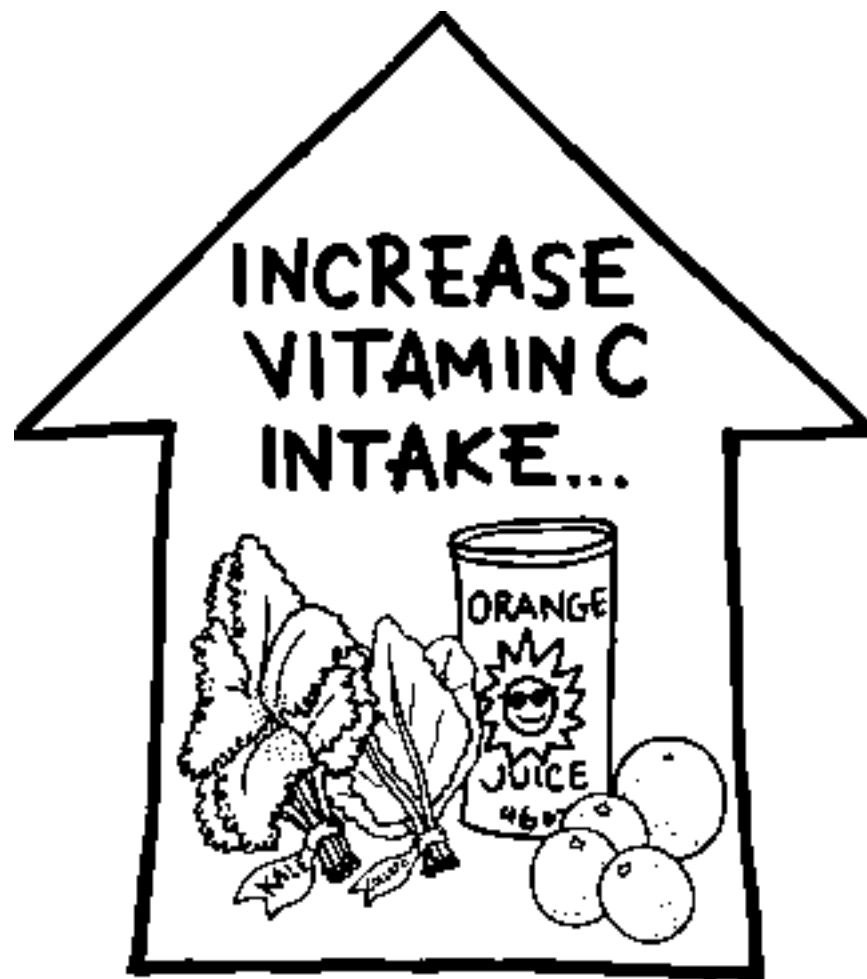


TOBACCO



CHEMICALS














SOLUBLE

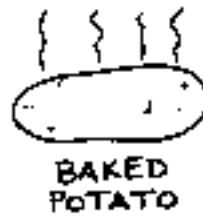


INSOLUBLE

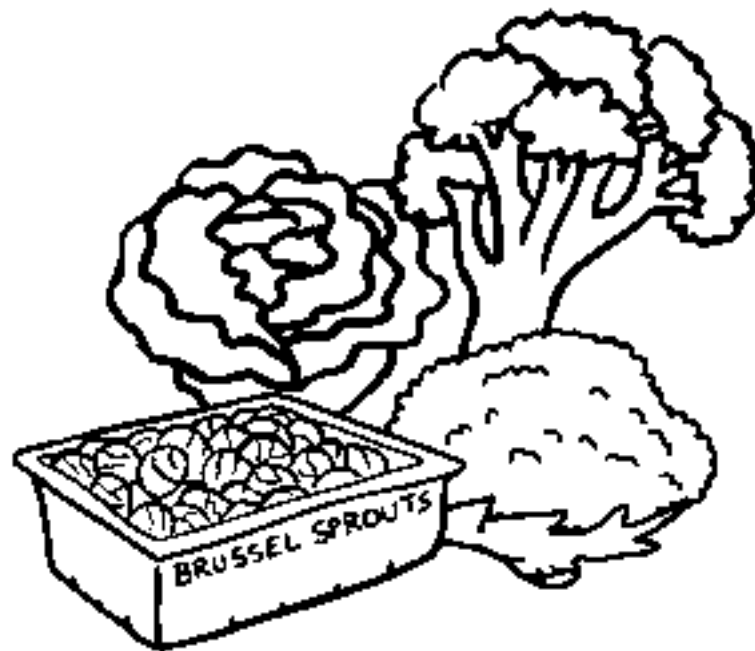
Fiber Sources

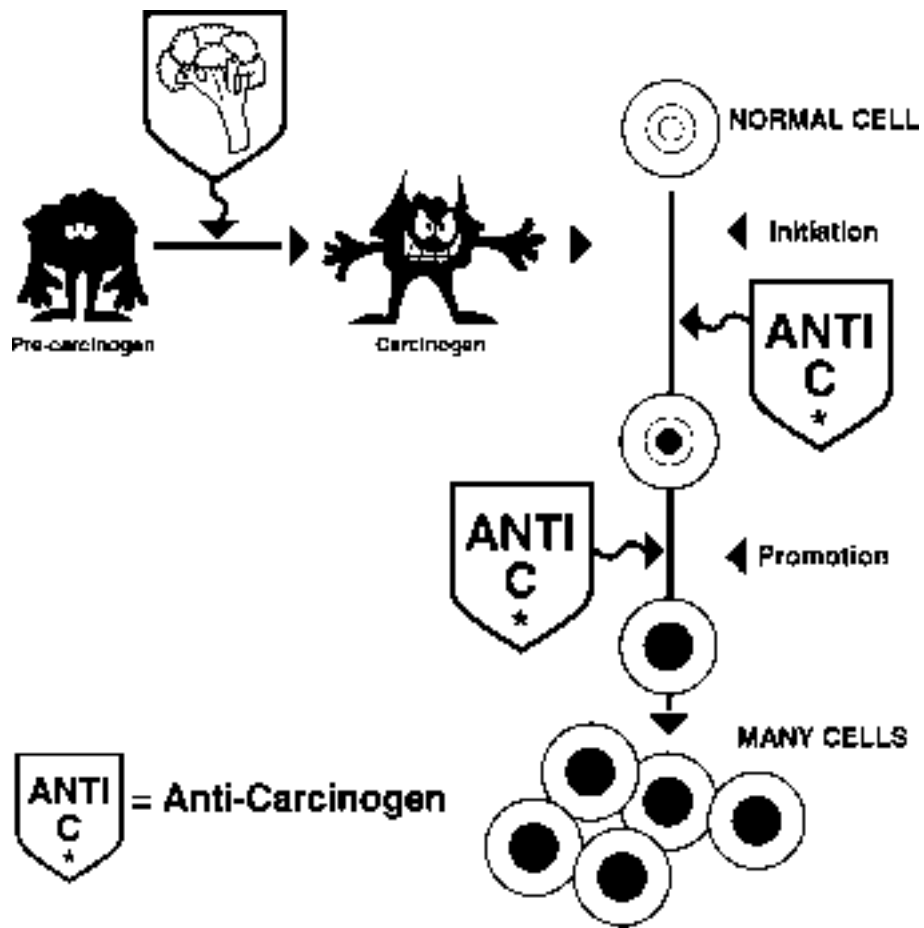
Food	Serving size	Fiber/serving (g)
 Kidney beans	1/2 cup	7
 Pear	1 medium	4
 Green peas	1/2 cup	4
 Potato w/ skin	1 medium	4
 Bread, whole wheat	1 slice	3
 Rice, brown	3/4 cup	3
 Popcorn	3 1/2 cups	5

Get More Fiber



Cruciferous Vegetables





Alcohol Is Like a Boat...



Nutrition Facts

Serving Size 1 cup (228g)

Servings Per Container 2

Amount Per Serving

Calories 260 Calories from Fat 120

% Daily Value*

Total Fat 13g **20%**

 Saturated Fat 5g **25%**

Cholesterol 30mg **10%**

Sodium 660mg **28%**

Total Carbohydrate 31g **10%**

 Dietary Fiber 3g **12%**

 Sugars 5g

Protein 5g

Vitamin A 4% • Vitamin C 2%

Calcium 15% • Iron 4%

*Percent Daily Values are based on a 2000-calorie diet. Your daily values may be higher or lower depending on your calorie needs:

		Calories:	2,000	2,500
Total Fat	Less than		65g	80g
Sat Fat	Less than		20g	25g
Cholesterol	Less than		300mg	300mg
Sodium	Less than		2,400mg	2,400mg
Total Carbohydrate			300g	375g
Dietary Fiber			25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Prepared by J. Lynne Brown, Ph.D., R.D., associate professor of food science, and Frances Shacklock, M.S., R.D.

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