

# food Insight™

NOVEMBER/DECEMBER 1999  
IFIC FOUNDATION

Current Topics in  
Food Safety and Nutrition

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## Worth the Risk

### Putting Activities in Perspective

When we awaken to meet each day, we face a variety of health and safety risks and benefits in our lives. Life is inherently full of risks, but this should not keep us from “taking on the day” or even unnecessarily limiting our activities. Although we are familiar with many common hazards (driving a car, participating in high-risk sports or even walking across the street), it is difficult to decide which ones to worry about or avoid and which ones to accept.

One key challenge is getting good science-based information about the relative risks of different activities, especially when it comes to a very personal and pleasurable activity: eating and drinking. For example, public concern about foodborne risks often exceeds concerns for other health and safety hazards, despite government assurances that the U.S. food supply is one of the safest in the world. The public also tends to misjudge the relative risks from food safety issues, ranking pesticide residues as posing a much greater threat to human health than not achieving a healthful diet. Persistent focus on food safety issues in the news sparks continued criticism by health professionals that consumers may be getting the false impression that we are amidst a “food safety crisis” (see “Sensible Talk About Food Safety,” *Food Insight*, July/August 1998).

So what are the “real” risks from food and beverages? Although precise estimates of food-related risks are not yet available, we can think rationally about food safety and appropriate health-promoting (or risk-reducing) behaviors. Health professionals, journalists and other communicators can empower consumers as they sort through the many risks they face by helping people think more broadly about risk issues and put food safety risks in the context of other health and safety hazards. Consistency between public and expert opinion is necessary to ensure that the greatest public health risks receive adequate attention and that both science and public values are included in decisions about food safety. This article helps provide a framework for putting food safety risks in perspective and

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Challenges  
RISK OPTIONS  
INFORMATION  
Decisions  
Statistics  
QUESTIONS

# Avoid Tipping the Scales

## How to Determine Portion and Serving Sizes

Webster's Dictionary defines "portion" as "an individual's part or share of something" and also as "an individual's lot, fate or fortune."

They both can apply to food. In the case of the first definition, it is the amount one eats at a particular eating occasion. As for the second one, food is very enjoyable, so it can be viewed as a fortune. Yet, too much of any food—or combination of foods—without the balance of physical activity can lead to an undesirable fate in terms of the health risks of overweight and obesity. Knowing what constitutes a serving size versus a portion size, being cognizant of what a serving size looks like and determining how many servings are right for you is all very important in achieving both a healthful and satisfying diet. Seems like too much to bite off? Some excellent resources such as the *Food Guide Pyramid* and the Nutrition Facts panel can help sort it out.

### Back to the Basics

The famous American physician, Charles Mayo, noted: "Adequate food is the cradle of normal resistance, the playground of normal immunity, the workshop of good health, and the lab of long life."

Yet, how do we know what is adequate? Qualitative research conducted by the International Food Information Council suggests that consumers are indeed confused about serving sizes, what they mean and how to use them. According to Mary Abbott Hess, L.H.D., M.S., R.D., "Part of this confusion has to do with the amount of food considered a 'serving' and consumers' perception of standard food 'portions.'" Portion and serving sizes may sound like the same thing but, for many Americans may actually be very

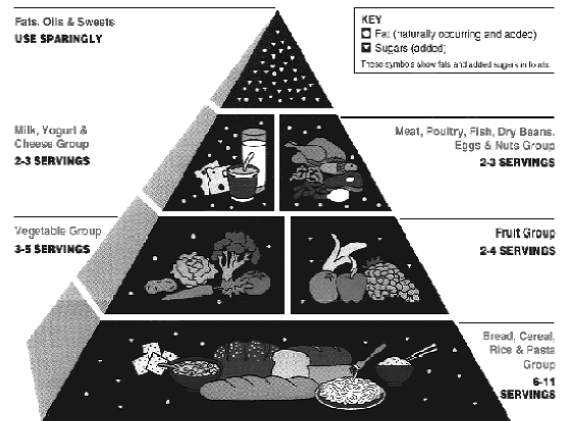
different. A "serving" size is a unit of measure based on nutrition needs. A "portion" can be thought of as the amount of a specific food a person eats for meals, snacks or other eating occasions.

To reduce consumer confusion on this topic, the first step should be the *Food Guide Pyramid*. The *Pyramid* was created for people over two years of age by the U.S. Department of Agriculture (USDA) and the U.S. Department of Health and Human Services. Copies of the *Pyramid* can be accessed at <http://www.usda.gov/fcs/cnpp.htm>. The *Pyramid* illustrates how much food a person needs (i.e., servings) from each food group to achieve a balanced diet (see *Food Guide Pyramid* graphic). It was designed for all people, but obviously, an adolescent is not going to eat the same number of servings as a grown man or woman.

Accordingly, the *Pyramid* was designed to be flexible, and it suggests a range of servings depending on an individual's caloric needs. This is where some estimating is necessary. The number of servings a person needs depends on age, gender, physical activity level, appetite and weight loss or weight gain goals.

As a general rule of thumb, the average person who is moderately active requires 2,000 calories per day. With that said, you may need more calories if you are very active or less if you are trying to reduce your weight.

As an example, the *Pyramid* recommends a range of 6-11 servings from the bread, cereal, rice and pasta group and suggests that an average



Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services

person consuming 2,000 calories eats approximately 8 servings.

Some consumers perceive the bread, cereal, rice and pasta group in the *Pyramid* as a real challenge. Many consumers believe the suggested 6-11 servings of grains are too much for them to eat on a daily basis. At the crux of this quandary may be that consumers are not familiar with what constitutes a serving size for grains. For instance, a consumer may have noted that 2 slices of bread or 1 cup of cooked pasta equaled a serving, when in fact the *Pyramid* indicates 1 slice of bread or 1/2 cup of cooked pasta is a serving. According to USDA food consumption surveys, individuals' typical portion sizes for grain products equaled 1-1/2 to 2 food guide serving units.

### Just the Facts

Another tool for consumers is the food label. A food label serving is a specific amount of food that contains the quantity of nutrients listed on the Nutrition Facts panel. The 1990 Nutrition Labeling and Education Act describes a serving size as the amount of food customarily consumed at one occasion.

What is useful about the Nutrition Facts panel is that it helps consumers compare the percent daily value of the nutrients (such as fats, carbohydrates and protein) and calories between similar foods. What it is not meant to do is provide advice on how much of certain foods to eat in order to achieve a healthful diet. The serving sizes are expressed in household measures, such as cups, ounces or pieces to make the food label serving sizes consumer friendly. They reasonably reflect the amount an individual might consume at an eating occasion.

Another specialized nutrition tool deserves mention—the *Exchange Lists for Meal Planning*. The American Dietetic Association, the American Diabetes Association and the American Public Health Association developed the *Exchange Lists* in 1950 primarily to help diabetics control their blood glucose levels and their weight. The *Exchange Lists* provide serving units for specific foods within each food list so that the protein, carbohydrate and fat content are the same for each exchange.

### Putting It All Together

With both the *Food Guide Pyramid* and the Nutrition Facts panel, the “serving size” is a unit of measure and may not be the actual portion size a person might consume at an eating occasion. These tools should be used in tandem, and for

many food items, the serving sizes on the *Pyramid* and the food label are the same.

For instance, both resources list 1/2 cup as the recommended serving for canned fruits and vegetables. However, for some foods, the serving sizes differ because these two tools have different purposes. The *Pyramid* describes serving units for primarily “simple” food items, such as 1 cup raw leafy greens; 1/2 cup cooked dry beans; 1 cup of milk or yogurt; or 2 tablespoons peanut butter. This method is used so consumers can easily remember what counts as a serving for major food groups and to help them build a healthful diet.

On the other hand, the Nutrition Facts panel serving unit is specific for each product category. The intent is to help consumers compare nutrient information between a number of choices of products that fall in the same food group. The food label servings can also apply both to dishes combining several food groups (such as frozen lasagna) and to “simple” foods like canned vegetables.

### Let's Be Sensible

The reality is that most consumers may not have a *Food Guide Pyramid* or a Nutrition Facts panel at their fingertips at each eating occasion, particularly if they are eating at a restaurant or consuming foods that were not prepared by them.

Yet, there are many tips to keep in mind to be sensible about portion sizes and diet. Two of the more important factors to keep in mind are that a healthful eating plan can and should include all the foods you like and it should include a variety of different foods.

Here are some sensible tips for not “overdoing it” from the Dietary Guidelines Alliance’s *It’s All About You Owner’s Manual* (see *Jan/Feb 2000 Food Insight*):

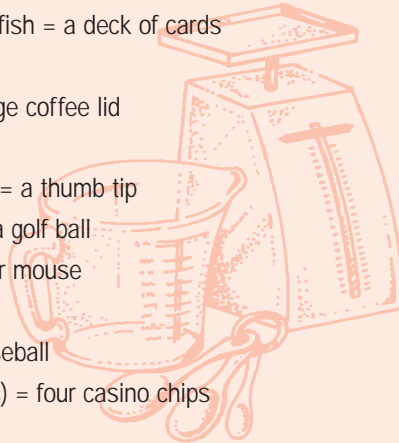
- Order once, enjoy twice. Eat half your steak at the restaurant. Take the rest home to savor tomorrow in a steak salad with juicy-ripe tomatoes or a beef and broccoli stir-fry. At a restaurant, two diners could split the steak entrée and each order a salad or vegetable side dishes.
- Snack from a plate, not from the bag, to stay aware of how much you are eating.
- It takes about 20 minutes for your brain to get the signal that your stomach’s had enough. Savor foods slowly—you’ll enjoy it more, eat less and avoid feeling stuffed.
- Craving a cheeseburger from your favorite restaurant? Skip the bacon and special toppings. Split an order of fries with a friend or exchange it for a crispy salad. Get your vitamin C with refreshing orange juice or boost your calcium with a low-fat shake.

Best yet, learn to recognize what a serving size looks like on a plate, in your hand and in a bowl. To help visualize a tablespoon or other common portion sizes, measure it out and compare its size to a common item like a quarter or deck of playing cards. Soon it will become second nature.

Recognizing appropriate portion sizes is a crucial step in having a healthy lifestyle. Nevertheless, everyone has a tendency to overdo it on occasion. When that happens, balance out your food choices by eating less at the next meal and increasing your physical activity, or plan ahead for a big meal by eating less that day. It’s okay to eat larger or smaller portions of foods. Just remember: the total diet balanced over several days is what counts.

## SIZING IT UP

- 1/2 cup fruit, vegetable, cooked cereal, pasta or rice = a small fist
- 3 ounces cooked meat, poultry or fish = a deck of cards
- 1 tortilla = a small (7 inch) plate
- 1/2 half bagel = the width of a large coffee lid
- 1 muffin = a large egg
- 1 teaspoon of margarine or butter = a thumb tip
- 2 tablespoons of peanut butter = a golf ball
- a small baked potato = a computer mouse
- 1 pancake or waffle = a 4 inch CD
- 1 medium apple or orange = a baseball
- 4 small cookies (like vanilla wafers) = four casino chips
- 1-1/2 ounces of cheese = 6 dice



discusses various ways in which risk information is presented. The goal: to help communicators and health professionals illustrate more clearly the relative risks of food safety and other public health issues.

**Understanding Risk**

“Most of us have little experience thinking about the size or magnitude of different risks. Although we have an intuitive sense that some risks are smaller or larger than others, research shows that people tend to *underestimate* relatively large risks such as heart disease and heart attacks and *overestimate* relatively small risks such as botulism, a foodborne illness caused by *clostridium botulinum*,” said George Gray, Ph.D., deputy director for the Center for Risk Analysis at Harvard School of Public Health. “Public misperceptions may be driven in part by what we hear and read, but a lack of understanding about risk magnitudes and how to interpret risk information also influences them,” he continued. Judging the size of a risk can be more relevant if the risk is compared to other, more familiar activities that inherently carry risk. For example, consider the fact that the annual risk of dying in the United States from motor vehicle accidents is about 160 in 1 million. This means that in a population of one million automobile drivers, 160 are “expected” to die from an accident in any given year (keeping in mind it does not mean that 160 people “will” die, since in reality, greater or fewer people may die).

Is this a big risk? Table 1 shows that each year, the average risk of dying from motor vehicle accidents is about 10 times greater than the risk of dying from either fires or drowning, and 100 times greater than the risk of dying from either railway or airplane accidents. In contrast, this risk is 13 and 18 times lower than the annual risk of dying from cancer and heart disease, respectively. Thus, driving a car poses a

# RISK COMPARISONS: Annual Risk of Dying in the U.S. per Million Persons at Risk

Cause of Death	Deaths per 1,000,000/year
Heart disease	.2800
All cancers	.2050
Parachutist	.2000
Fire fighter; Hang glider	.800
Lung cancer	.590
Pneumonia	.320
Diabetes; Police officer	.230
Motor vehicle accidents; Breast cancer	.160
Homicide	.80
Falls	.50
Foodborne bacteria	.36
Accidental poisoning (drugs and medication)	.30
Fires and burns; Drowning	.15
Tuberculosis; Firearms	.5
Choking, inhalation or ingestion of foreign object/food	.4
Electric current; Railway	.2
Airline crash (one trip)	.06
Floods	.04
Lightning; Insect bite or sting	.02
Hit by falling aircraft	.006
Hurricane	.004

Sources: 1997 US Statistical Abstract; National Safety Council (1995), *Accident Facts*; Crouch & Wilson (1982), *Risk/Benefit Analysis*.

significant risk when compared to other public health hazards, including some alternate forms of transportation. Yet, it still trails behind several leading causes of death.

**Putting Risk into Perspective**

While data on foodborne risks are limited, it is estimated that most food-related hazards result from harmful bacteria (such as *E. coli* or *salmonella*). This is an approximate annual risk of 36 in

1 million (based on the United States population of 260 million), which is 7 times *greater* than the risk of dying from tuberculosis (TB) each year, and 100 times greater than the risk of dying from floods. On the other hand, this risk is 78 times *lower* than the risk of dying from heart disease, 57 times lower than the risk of dying from cancer and 4 times lower than the risk of dying from motor vehicle accidents. Even the mere act of eating food poses an annual risk of dying

# IFIC Foundation Publications List

## International Food Information Council (IFIC) Foundation

Single copies of publications on food safety and nutrition are available free-of-charge from the International Food Information Council Foundation. Bulk prices are provided. To order publications, please write to:

IFIC Foundation  
Publications Department  
1100 Connecticut Ave., N.W., Suite 430,  
Washington, DC 20036.

## IFIC FOUNDATION ON-LINE

All publications are accessible on the world wide web at:  
<http://ifinfo.health.org>

Inquiries and orders may be placed on our web site or via email at:  
[foodinfo@ific.health.org](mailto:foodinfo@ific.health.org)

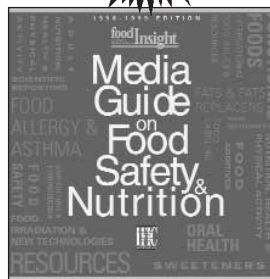
April 1999

**UPDATED**



Food Biotechnology Resource Kit. This updated and redesigned kit is a compilation of backgrounders on food biotechnology topics. The most recent data on consumer attitudes and government regulatory issues are included.

**NEW**



*Food Insight* Media Guide on Food Safety and Nutrition. 1998-1999. A comprehensive manual for journalists filled with food safety and nutrition information. Includes some 200 expert sources for interviews as well as backgrounders, articles and IFIC Foundation publications.

**NEW POSTERS!**



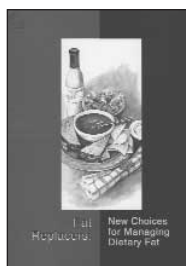
Children's Nutrition and Physical Activity Teaching Set. This teaching set is designed to help kids ages 9-15 understand the importance of combining nutrition and physical activity. It features a 22" x 34" two-sided poster highlighting the Physical Activity Pyramid alongside the Food Guide Pyramid. Produced in cooperation with The American Dietetic Association and the President's Council on Physical Fitness and Sports.

**NEW**



Low-Calorie Sweetener Brochures. Two new easy-to-read brochures to help consumers and others learn about acesulfame potassium and sucralose, low-calorie sweeteners, which provide additional reduced calorie food and beverage options.

**NEW**



*Fat Replacers: New Choices for Managing Dietary Fat* Tool Kit. A tool kit designed to help **nutrition educators** communicate with both health professionals and consumers about fat replacers. Included in the kit are presentation scripts for professional and consumer audiences, overhead/slide masters, references, a glossary of fat reduction ingredients and third-party organizations' resource information.

**NEW**



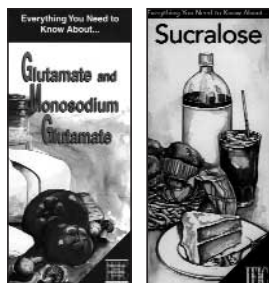
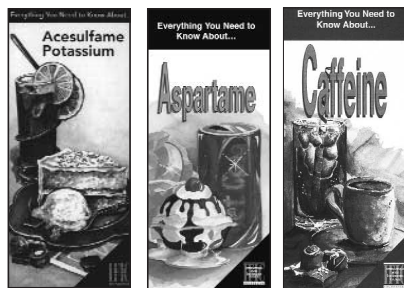
Understanding Food Allergy. A consumer and patient education brochure that provides information on the basics on food allergy, food intolerance and food idiosyncrasy. Endorsed by the American Academy of Allergy, Asthma and Immunology and The Food Allergy Network.

**Look inside for more information on these and other IFIC Foundation publications.**

## Educational Brochures

Single copy  
Up to 100 copies  
100-999  
1,000 or more

Free  
\$.50 ea.  
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- Everything You Need to Know About Aspartame
- Everything You Need to Know About Caffeine
- Everything You Need to Know About Glutamate and Monosodium Glutamate
- Everything You Need to Know About Sucralose



The Benefits of Balance: Managing Fat in Your Diet.

This timely brochure shows how lower-fat foods—including reduced-fat, low-fat and fat-free foods—can help you manage the fat in your diet while continuing to enjoy your favorite foods.

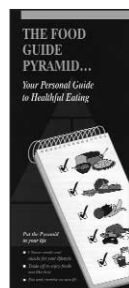
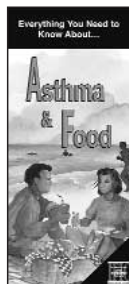
Developed with the U.S. Food and Drug Administration.



Everything You Need to Know About the Functions of Fats in Foods. A brochure explaining why fats are used in foods, differences among butter, margarines, oils and other fats and the role of fat in a healthful diet. Developed with technical assistance from The American Dietetic Association.

Everything You Need to Know About Asthma and Food.

A patient education brochure discussing the prevalence of food-induced asthma, common triggers and steps for prevention and control. Developed in cooperation with Division of Allergy, Asthma and Immunology, Scripps Clinic and Research Foundation and endorsed by the American Academy of Allergy, Asthma and Immunology.



The Food Guide Pyramid... Your Personal Guide to Healthful Eating.

A brochure illustrating the basic tenets of a healthful diet: balance, variety and moderation. Co-developed with the Food Marketing Institute and the U.S.

Department of Agriculture.

10 Tips to Healthy Eating and Physical Activity for You.

A colorful brochure designed for 9-15 year-olds with easy tips on balancing food choices (food guide pyramid) and increasing physical activity (activity pyramid). Co-published with The American Dietetic Association in cooperation with the President's Council on Physical Fitness and Sports.



10 Tips to Healthy Eating.

A brochure for adults with quick tips on maintaining healthy weight, balancing food choices and improving eating habits. Co-published with The American Dietetic Association. Also available in Spanish.



Understanding Food Allergy.

A consumer and patient education brochure that provides information on the basics on food allergy, food intolerance and food idiosyncrasy. Endorsed by the American Academy of Allergy, Asthma and Immunology and The Food Allergy Network.

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- Everything You Need to Know About Aspartame
- Everything You Need to Know About Asthma and Food
- Everything You Need to Know About Caffeine
- Everything You Need to Know About the Functions of Fats in Foods
- Everything You Need to Know About Glutamate and Monosodium Glutamate
- Everything You Need to Know About Sucralose
- The Food Guide Pyramid... Your Personal Guide to Healthful Eating
- 10 Tips to Healthy Eating and Physical Activity for You (Kids)
- 10 Tips to Healthy Eating (Adults)
- Food Biotechnology: Health & Harvest For Our Times
- Caffeine and Women's Health (Spanish Version)
- The Benefits of Balance: Managing Fat in Your Diet
- Fats & Fat Replacers Myths and Facts Sheet

The IFIC Foundation is a 501(c)(3) educational foundation designed to be a force that helps the media, educators, health professionals and scientists effectively communicate science-based information on health, nutrition and food safety for the public good.

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Single copy	Free
Up to 100 copies	\$.50 ea.
100-499	.45 ea.
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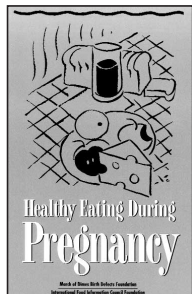


Helping Your Overweight Child. An easy-to-understand booklet to help parents and caregivers identify and assist children with weight problems. Developed by the National Institutes of Health's

Weight-control Information Network and the IFIC Foundation. 20 pages.

Food Biotechnology: Health & Harvest For Our Times.

A booklet providing an overview of food biotechnology from its roots in traditional agriculture to its promise for the future. 12 pages.



Healthy Eating During Pregnancy. An educational booklet summarizing current recommendations on nutrition and weight gain during pregnancy. Co-published with the March of Dimes Birth Defects Foundation. 16 pages.

Caffeine and Women's Health.

A booklet providing background information on caffeine and female reproduction and other health issues.

Co-published with the Association of Women's Health, Obstetric, and Neonatal Nurses. 12 pages.



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Nutrition and Oral Health: Making the Connection.

A referenced white paper on the important relationship between diet and oral health, causes and prevention of cavity formation and future research opportunities.



How to Understand and Interpret Food and Health-Related Scientific Studies.

This referenced white paper presents an overview of key information to look for and questions to ask when reading and

evaluating scientific studies. Designed to help members of the media, health professionals and educators critically review research.

Uses and Nutritional Impact of Fat Reduction Ingredients.

A referenced white paper examining the different types of ingredients used to reduce the fat content in foods and the role of lower-fat foods in a healthful diet.

Sweet Facts About Sugars and Health.

A referenced white paper highlighting the latest research on the role of sugars in a healthful diet.

Sorting Out the Facts About Fat.

An in-depth review of the role of dietary fats in a healthful diet, including information on cholesterol, hydrogenation and obesity.

Intense Sweeteners: Effects on Appetite and Weight Management.

A referenced white paper highlighting major studies on intense sweeteners and their implications for weight management.

Glutamate and Monosodium Glutamate: Examining the Myths.

A referenced white paper on the history, functions, consumption and health issues related to glutamate and MSG.

## IFIC Reviews

Caffeine and Health: Clarifying the Controversies.

A referenced white paper on the sources, consumption, physiological effects and health issues related to caffeine.

## IFIC Backgrounders

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Single copy: \$1.00

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Summary of IFIC's qualitative and quantitative research on functional foods.

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Food Biotechnology Backgrounders Set of four: \$5.00

Titles include:

- Food Biotechnology: Overview
- Food Biotechnology: The Environment
- Food Biotechnology: Benefits and Products
- Food Biotechnology: Safeguards and Labeling

Consumer Opinion on Food Biotechnology

Summary of IFIC's 1999 quantitative research on Food Biotechnology.

Single copy: \$1.00

**Additional IFIC Foundation publications accessible on the World Wide Web at:**  
<http://ificinfo.health.org>

Understanding Food Allergy Video Package

How Are Americans Making Food Choices: IFIC Review and Gallup Survey

Sugars Brochure

Food Additives Brochure

Food Color Facts Brochure

Starting Solids Brochure

A Consumer's Guide to Pesticides and Food Safety Brochure

IFIC Review: Pesticides and Food Safety



from choking of 5 in 1 million. Of course, the risk of *not eating* also can be substantial.

While these comparisons help put the magnitude of risk into perspective, they do not convey the level of uncertainty associated with formulating risk estimates or provide information on how the risk of a specific activity is distributed in the population. For example, the risk of dying from a motor vehicle accident is known with greater certainty than the risk of dying from harmful bacteria in food, since the cause of death is easier to identify (and quantify) when it is a car accident versus a foodborne illness death. In addition, the elderly are at much greater risk from cancer or heart disease than are younger persons, while the reverse is true for automobile risks. The *acceptability* of risk also requires the consideration of other important factors. For example, driving a car or hang gliding are voluntary activities that provide many perceived benefits, thereby increasing the acceptability of these risks for many people.

“Besides thinking about risk in a broader context, it is important to be aware of the various ways in which risk information is presented. Risks can refer to a variety of health outcomes including death, cancer and non-fatal injuries or illness, and risk rankings may differ depending on which outcome is used,” said Gray. For example, although the risk of dying from foodborne disease ranks relatively low compared to other public health hazards, the risk of foodborne illness may rank much higher than other sources where the outcome is not death. Indeed, it is estimated that up to 81 million cases of foodborne illness occur in the United States each year. A parallel example is comparing the risk of *death* from harmful bacteria with the risk of *illness* from bacteria. According to Gray, risk information may also be framed according to different consequences, such as the number of deaths in a population or the estimated loss in life expectancy (i.e., number of years taken away from a life). Further, risk estimates may be based on exposures that occur in a given year (i.e.,

## RISK ANALOGIES

### A risk of 1 in 1,000,000 is about equal to:

- the chance of flipping a coin and getting 20 heads in 20 consecutive tries.
- the chance of rolling a dice and getting 7 sixes in 7 consecutive rolls.
- the chance of dying from taking 1 flight on a regularly scheduled jet airliner.
- 30 seconds in a year.
- less than 1/2 inch in a mile.

### A risk of 1 in 100,000 is about equal to:

- the chance of flipping a coin and getting 16 heads in 16 consecutive tries.
- the chance of rolling a dice and getting 6 sixes in 6 consecutive rolls.
- the chance of dying from taking 10 flights on regularly scheduled jet airliners.
- 5 minutes in a year.
- 1/2 inch in a mile.

### A risk of 1 in 10,000 is about equal to:

- the chance of flipping a coin and getting 13 heads in 13 consecutive tries.
- the chance of rolling a dice and getting 5 sixes in 5 consecutive rolls.
- the chance of dying from taking 100 flights on regularly scheduled jet airliners.
- 53 minutes in a year.
- 6 inches in a mile.

annual risk) or over the duration of one's lifetime (i.e., lifetime risk).

### Relative or Absolute: A Distinction That Makes a Difference

The distinction between *relative* risk and *absolute* risk is also important. “Relative risk puts risk in comparative terms and indicates the ratio of risk among individuals who are exposed versus non-exposed to a particular hazard,” explained Gray. Relative risks greater than 1 (>1) mean that exposed persons are more likely to experience a health effect than non-exposed persons, while relative risks less than 1 (<1) suggest that the exposure has a ‘protective’ effect (e.g., consuming fruits and vegetables has been found to reduce risk of certain cancers).

Absolute risk refers to the actual risk of an occurrence—the chance of a specific outcome occurring. For example, suppose that a study shows that a man who brushes his teeth only once a day is 50 percent more likely to lose all his teeth in the next 10 years than others who brush their teeth twice a day. Yet, the absolute risk of the man losing all his teeth may be only 1 percent. In this case, the relative risk makes the problem seem more important than it may be in reality. On the other hand, rela-

tive risk can also make a problem seem less important than it really is, so it is best to consider both types. “In practice, relative risks are more useful for *identifying* the result of various health outcomes or behaviors, while absolute risks are better suited for evaluating the actual impacts of a risk on a specified population,” said Gray.

### Food for Thought

Like everything we do, consuming food and beverages poses some degree of risk. Although everyone is entitled to choose which chances they want to accept or avoid, personal actions to reduce foodborne and other risks should be based on informed decision-making and science rather than allowing reports of outbreaks to lead one to believe the risk is greater than it is. Certain behaviors, such as eating fewer fruits and vegetables to avoid potential exposures to pesticides, can also lead to potential negative consequences, such as decreased intake of essential vitamins and nutrients. “While there is no ‘right’ answer for how to judge food safety risks,” said Gray, “thinking about foodborne hazards in the context of other hazards can help shift attention away from the ‘wrong’ risks and toward those that pose the greatest threats to public health and safety.”

# NewsBites



## FDA APPROVES SOY HEALTH CLAIM FOR FOOD LABELS

On October 26th, the Food and Drug Administration (FDA) began allowing food products containing soy protein to carry a label promoting the heart-health benefits of soy. According to an FDA statement, the approval "is based on evidence that soy protein in a diet low in saturated fat and cholesterol may...help to reduce the risk of [heart disease]."

The new health claim permits foods containing at least 6.25 grams of soy protein per serving to include information on soy's role in reducing risk of heart disease on their labels. The amount of soy protein required in each serving is one quarter what is considered to be the effective amount of 25 grams per day. Because soy protein can be found in or added to a variety of foods, it is possible for consumers to eat foods containing soy protein at all three meals and for snacks.

Foods eligible for the new labels include soy beverages, tofu, soy-based meat alternatives, soy protein powders and many others. Most foods that carry the health claim must also meet labeling requirements for low-fat, low-saturated fat and low-cholesterol foods. However, foods made with the entire soybean may carry the claim if they contain no added fat.

An example of the new label may state: "Diets low in saturated fat and cholesterol that include 25 grams of soy protein a day may reduce the risk of heart disease. One serving of (name of food) provides (XXX) grams of soy protein."

## GET READY FOR NATIONAL NUTRITION MONTH

**What comes to mind when you think of the month of March?**

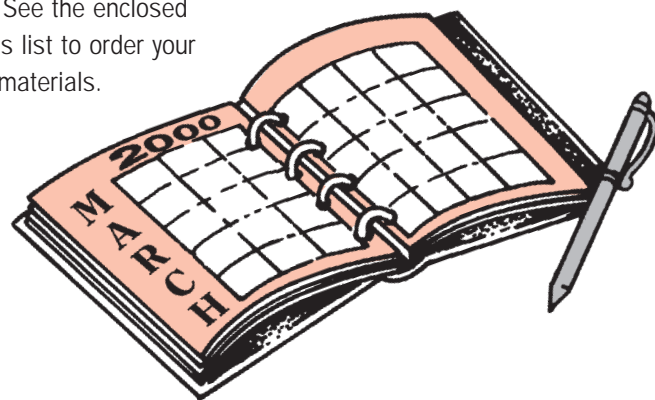
How about National Nutrition Month® (NNM)! National Nutrition Month® is an annual nutrition information and education campaign sponsored by the National Center for Nutrition and Dietetics (NCND) of The American Dietetic Association (ADA).

The NNM 2000 slogan, "Food and Fitness: Health for a Lifetime," reinforces the importance of nutrition as a key component of a healthful lifestyle. The campaign bolsters the role of nutrition and physical activity in health and promotes fun, enjoyment and creativity in making food choices.

Get a jump-start on National Nutrition Month® 2000. IFIC Foundation education materials are perfect to use with NNM activities. See the enclosed publications list to order your education materials.

## NEW ON-LINE PUBLICATION

With favorable review by the National Policy and Resource Center on Nutrition and Aging at Florida International University, the IFIC Foundation has produced a new on-line publication targeted toward meeting the nutrition needs of older Americans. The *Better Eating for Better Aging* brochure focuses on the factors affecting nutrition among older persons and provides tips and techniques for using flavor enhancement to improve flavor, food acceptance and ultimately nutrition. The PDF (portable document format) brochure is designed to be used by health professionals, dietetics professionals and senior program service providers; and is available at <http://ificinfo.health.org/pdffiles/beba2.pdf>.



## WHAT'S NEW at <http://ificinfo.health.org?>

**New at IFIC Foundation OnLine—**

Survey results and background on the latest IFIC survey of U.S. consumer attitudes about food biotechnology are now available at <http://ificinfo.health.org/index14.htm>

# We've Come a Long Way:

## Looking Back at Food Guides and Recommendations

As long as we have had food to consume, there has been advice on what and how much to eat. Yet, science-based recommendations on what foods to eat began only about a century ago. As we enter the new century, *Food Insight* takes a quick look back at the changes in dietary recommendations that brought us to the guidance we know today.

Dietary tools for consumers include dietary recommendations or guidance aimed at assisting the public formulate lifestyle and dietary choices to promote health and prevent disease. Additionally, food guides such as the *Food Guide Pyramid* assist consumers and health professionals select foods to be included in a healthful diet and lifestyle.

In 1894, the food composition tables and dietary standards for Americans were created by Dr. W.O. Atwater, the first director of the Office of Experiment Stations in the U.S. Department of Agriculture (USDA). While there was still much to be discovered in terms of diet and health, Atwater started the scientific basis for intake of various foods, dietary intake and health. He noted, "Unless care is exercised in selecting food, a diet may

result which is one-sided or badly balanced," thus initiating the present-day themes of balance, variety and moderation.

Food guides—frameworks to help people choose which foods to eat and in what quantities in order to achieve a healthful diet—did not appear in USDA publications until 1916. The person most frequently credited with creating the first guide is Caroline Hunt, a nutrition specialist in USDA's Bureau of Home Economics. In the USDA guide, foods were divided into five categories: milk and meat; cereals; vegetables and fruits; fats and fat foods; and sugars and sugary foods. Her rationale for grouping these foods together was based on what was then known about nutrition science. *How to Select Foods* was the first *daily* food guide targeted to the general population (1917), followed in 1921 with one that was targeted to the average size family (which was five) and noted the amount of food to purchase each week.

The Depression in the 1930s ushered in new guidelines responding to food and resource scarcity. A USDA food economist, Hazel Stiebeling, developed a guide to help families shop

*Continued next page*

## New IFIC Foundation Publications

Below are the newest releases from the IFIC Foundation. Single copies of most publications are available free-of-charge. For a comprehensive listing of publications or for bulk prices, please request the IFIC Foundation Publications List below.

### TO ORDER:

Please complete and return this form to:  
 IFIC Foundation  
 1100 Connecticut Ave., N.W., Suite 430  
 Washington, D.C. 20036

- Publications List (MI-4010)** A complete list of publications and *Food Insight* reprints available from the IFIC Foundation.
- Improving Public Understanding: Guidelines for Communicating Emerging Science on Nutrition, Food Safety, and Health (MI-4175)** Based on an advisory group convened by the Harvard School of Public Health and the International Food Information Council Foundation, this publication provides "guiding principles" for general communicators as well as specific guidelines for scientists, journal editors, journalists and interest groups.
- Fat Replacers Tool Kit (MI-4205)** A tool kit designed to help nutrition educators communicate with both health professionals and consumers about fat replacers. Kit includes slide masters, scripts, references and a glossary of ingredients and a collection of third-party organizations' resource information. Please send \_\_\_ copies at \$5.00 and \$1.50 shipping and handling.
- Food Biotechnology Resource Kit (MI-4080)** This updated and redesigned kit is a compilation of back-grounders on food biotechnology topics, including product benefits, consumer attitudes, federal safeguards and labeling, and the environment. The most recent data on consumer attitudes and government regulatory issues are included. The kit also includes positions of other leading health professional organizations, along with an extensive resource list. Please send \_\_\_ copies at \$10.00 each. Enclosed is a check for \$\_\_\_.

- Understanding Food Allergy (EB-2035)** A patient education brochure that provides general consumers, patients and parents with the basics of food allergy, food intolerance and food idiosyncrasy. Endorsed by the American Academy of Allergy, Asthma and Immunology and The Food Allergy Network.
- Benefits of Balance: Managing Fat in Your Diet (EB-2080)** A new consumer brochure details how lower-fat foods and foods with fat replacers can be included in the overall diet to balance food choices. It was developed in partnership with the Food and Drug Administration.
- Caffeine and Health: Clarifying the Controversies (IR-3020)** This updated IFIC Review highlights new research, provides background information on caffeine and seeks to dispel misconceptions that exist about the ingredient.
- Children's Nutrition and Physical Activity Teaching Set (MI-4200)** A teaching set designed to help kids ages 9-15 understand the importance of combining nutrition and physical activity. The set features a 22" x34" two-sided color poster highlighting the Physical Activity Pyramid alongside the Food Guide Pyramid. Set includes the Ten Tips to Healthy Eating and Physical Activity for You brochure, reproducible slick and poster. Please send \_\_\_ copies at \$3.50 and \$1.50 shipping and handling.

Which of the following categories best describes you or your organization (Please select only one):

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We've Come a Long Way... *Continued from page 7*

for food. It consisted of family food plans and included 12 major food groups. Stiebeling emphasized a balance between “protective” (nutrient-dense foods, including milk for calcium) and “high-energy” foods (including fats). Today, research continues for the development of guidelines that provide healthful eating advice at different cost levels.

Another major historical event that influenced food guides was World War II. The *Basic Seven* debuted in 1943 in the *National Wartime Nutrition Guide* and included green and yellow vegetables; oranges, tomatoes and grapefruit; potatoes, other vegetables and fruits; milk and dairy products; meat, poultry, fish, eggs and dried peas and beans; bread, flour and cereals; and butter and fortified margarine. To prepare for limited amounts of certain foods during the war, this guide focused on alternative food choices rather than number of servings per food group. The *Basic Seven* was used for many years, but the lack of specificity regarding serving sizes called for a revision.

Seven food groups were reduced to four when the USDA introduced the *Basic Four* in 1956. It was intended to meet only a portion of caloric needs for individuals, and it was assumed that people would eat more than what was recommended in order to be satisfied. There was also little information on fat and sugars intake or on appropriate caloric intake.

The U.S. Senate issued *Dietary Goals for the United States* in 1977, and were a focus of controversy among nutrition and health professionals. Because diets to meet the *Goals* were so different from usual food patterns and a recommendation for protein was not apparent, the USDA did not adopt them. However, the Senate’s report and dietary recommendations drew attention to the need for the federal government to take responsibility for providing dietary guidance to the public.

The USDA’s *Hassle-Free Guide* replaced the *Basic Four* in 1979 and added to the foundation diet a fifth group—fats, sweets and alcohol. This food guide was distinct because it gave special attention to calories and dietary fiber, and highlighted the need to consume a moderate amount of fats, sugars and alcohol.

In order to provide authoritative and consistent dietary advice, the USDA teamed up with the U.S. Department of Health and Human Services in 1980 to issue the first edition of the *Dietary Guidelines for Americans*. The *Guidelines* were based on the most up-to-date science available on diet and health, and have subsequently been updated in 1985, 1990 and 1995.

Like all science, dietary guidance is evolutionary and new findings occur frequently. As we meet the 21st Century, we will be welcomed with a fifth edition of the *Dietary Guidelines for Americans*. And, we can be assured that future editions will reflect new science and benefits of a healthful and enjoyable diet.

**Current Topics in Food Safety and Nutrition**



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