Motivational Interviewing: Integrating the Total Diet Approach

by Maureen Bligh, MA, RD
and Sarah Mathot, MS, RD

Complete exam for credit before February 28, 2014

Learning Objectives

Upon completion of this module the student will be able to:

1. Verbalize an understanding of embedding specific nutrition information in a total diet context.
2. Verbalize an understanding of multiple factors influencing clients’ and consumers’ dietary decisions.
3. Define and demonstrate a guided counseling approach.

Nutrition counseling is more effective when using motivational interviewing techniques and considering total diet. How to integrate total diet while counseling is rarely addressed. This module, designed for entry level health professionals demonstrates simple techniques using food group assessments and motivational interviewing techniques to achieve desired client behavior change.
Information About This Course

Nutrition counseling is more effective when using motivational interviewing techniques and considering total diet. How to integrate total diet while counseling is rarely addressed. This module, designed for entry level health professionals demonstrates simple techniques using food group assessments and motivational interviewing techniques to achieve desired client behavior change.

The course consists of a 45-minute narrated PowerPoint presentation and written course materials. Viewing and listening to the full presentation, reviewing the written course materials and taking the CE examination is worth 2 continuing education (CE) credits. The course is free to view and read. To purchase the posttest from Nutrition Dimension for CE credit, see directions on the following page.

Table of Contents

• Listen to the 45-minute narrated Presentation at the following URL address:
  www.DairyCouncilofCA.org/TotalDietCounseling

• Read the following monographs contained in this PDF download:
  - Position of the American Dietetic Association: Total Diet Approach to Communicating Food and Nutrition Information
  - Unintended Consequences of Simplistic Dietary Recommendations: Good Advice Gone Awry?
  - Definition of Motivational Interviewing
  - Dietary Patterns: Important Templates for Nutrition Guidance
  - The Joy of Eating

• Take examination to receive Continuing Education Credit.
  (See the following page regarding Continuing Education Credit.)
About the Authors:

Maureen Bligh, MA, RD, has spent much of her career developing online nutrition education resources for teachers, health professionals and children. She is a graduate of California Polytechnic State University San Luis Obispo (BS in dietetics and food administration), University of Iowa (RD) and California State University Sacramento (MA in education). She began her career as a clinical dietitian at University of California, Davis Medical Center specializing in outpatient education. She later became a supervising clinical dietitian at Eskaton American River Hospital in Sacramento. Since 1984 she has worked for the Dairy Council of California, first as a Nutrition Education Consultant in schools and since 1991 as a Project Manager specializing in web-based technologies.

Her passion for nutrition centers on educating and empowering people to make their best choices for their health. These choices need to be realistic and sustainable while considering taste, convenience, cost, cultural/family traditions and personal values. This is best achieved by positive, realistic, small steps and solutions that can be applied to existing habits and routines.

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Previously, Sarah worked as a Nutrition Specialist for the Network for a Healthy California and has also consulted with a variety of athletes and individuals through a health and weight loss program based in physical therapy offices throughout Orange County.

Sarah holds a Master of Science in Nutrition from California State University, Long Beach and Bachelor of Science in Nutrition from Cal Poly, San Luis Obispo. She also was CDA – Orange District President in 2008-2009 and Recognized Young Dietitian of the Year in 2011.
**Introduction**

Motivational interviewing (MI) focuses on exploring and resolving ambivalence and centers on motivational processes within the individual that facilitate change. The method differs from more “coercive” or externally-driven methods for motivating change as it does not impose change but rather supports change that aligns with the person’s own values and concerns.

Motivational interviewing is grounded in a respectful stance with a focus on building rapport in the initial stages of the counseling relationship. A central concept of MI is the identification, examination, and resolution of ambivalence about changing behavior.

Ambivalence, feeling two ways about behavior change, is seen as a natural part of the change process. The skillful MI practitioner is attuned to client ambivalence and “readiness for change” and thoughtfully utilizes techniques and strategies that are responsive to the client. Recent descriptions of Motivational Interviewing include three essential elements:

1. MI is a particular kind of conversation about change.
2. MI is collaborative, person-centered, partnership, honors, autonomy, not expert-recipient.
3. MI is evocative, seeks to call forth the person’s own motivation and commitment.

The total diet approach focuses on the concept that food is not “good” or “bad”. It is your overall pattern of eating that is most important and should be the focus of nutrition education and counseling.

This course will teach you how to incorporate the total diet approach using motivational interviewing.
Continuing Education Credit

is available for this module for the following professions:
  Registered Dietitians/Dietetic Technicians: 2 CPEU
  Certified Dietary Managers: 2 Clock Hours
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Position of the American Dietetic Association: Total Diet Approach to Communicating Food and Nutrition Information

ABSTRACT
It is the position of the American Dietetic Association that the total diet or overall pattern of food eaten is the most important focus of a healthful eating style. All foods can fit within this pattern, if consumed in moderation with appropriate portion size and combined with regular physical activity. The American Dietetic Association strives to communicate healthful eating messages to the public that emphasize a balance of foods, rather than any one food or meal.

Public policies that support the total diet approach include the Dietary Guidelines for Americans, MyPyramid, the DASH Diet (Dietary Approaches to Stop Hypertension), Dietary Reference Intakes, and nutrition labeling. The value of a food should be determined within the context of the total diet because classifying foods as “good” or “bad” may foster unhealthful eating behaviors. Alternative approaches may be necessary in some health conditions. Eating practices are dynamic and influenced by many factors, including taste and food preferences, weight concerns, physiology, lifestyle, time challenges, economics, environment, attitudes and beliefs, social/cultural influences, media, food technology, and food product safety. To increase the effectiveness of nutrition education in promoting sensible food choices, food and nutrition professionals should utilize appropriate behavioral theory and evidence-based strategies. A focus on moderation and proportionality in the context of a healthful lifestyle, rather than specific nutrients or foods, can help reduce consumer confusion. Pro-active, empowering, and practical messages that emphasize the total diet approach promote positive lifestyle changes.


POSITION STATEMENT
It is the position of the American Dietetic Association that the total diet or overall pattern of food eaten is the most important focus of a healthful eating style. All foods can fit within this pattern, if consumed in moderation with appropriate portion size and combined with regular physical activity. The American Dietetic Association strives to communicate healthful eating messages to the public that emphasize a balance of foods, rather than any one food or meal.

Over the past 4 decades, Americans have become more conscious of diet and nutrition (1). Although nearly all consumers believe that body weight, diet, and physical activity influence health, diet surveys suggest that their food habits are not always commensurate with knowledge and beliefs (2). Only half describe their diet as healthful, and 14% eat five or more servings of fruits and vegetables per day. One third classify themselves as sedentary and do not engage in physical activity. Even though more than half of consumers say they are making dietary changes to improve their health, approximately two thirds are overweight or obese. It is clear that practical guidance by food and nutrition professionals is needed to promote positive lifestyle changes that are sustainable.

According to the Shopping for Health 2004 study, nearly six in 10 consumers are trying hard to eat healthfully so they can avoid health problems later in life (3). More than half of food shoppers strongly agree that eating healthfully is a better way to manage illness than medication. Unfortunately, this trend toward increasing awareness has been accompanied by widespread confusion with complaints that nutrition education is focused on what NOT to eat, instead of what TO eat (1). These conflicting messages make it difficult to know what to do.

Eating is an important source of pleasure. As food and nutrition professionals strive to improve the quality of Americans’ dietary and lifestyle choices, challenges are exacerbated by the widespread perception that individuals must choose between good taste and nutritional quality. In fact, no single food or type of food ensures good health, just as no single food or type of food is necessarily detrimental to health. Rather, the consistent excess of food, or absence of a type of food over time, may diminish the likelihood of a healthful diet. For example, habitual, excessive consumption of energy-dense foods may promote weight gain and mask possible under-consumption of essential nutrients. Yet small quantities of energy-dense foods on special occasions have no discernible influence on health.

In most situations, nutrition messages are more effective when focused on positive ways to make healthful food choices over time, rather than individual foods to be avoided (4,5). Unfortunately, the current mix of reliable and unreliable information on diet and nutrition from a variety of sources is confusing to the public and elicits negative feelings such as guilt, worry, helplessness, anger, fear, and inaction.

The total diet approach is based on overall eating patterns that have important benefits and health consequences and that provide adequate
nutrients within calorie needs. This includes the concept that foods are not inherently “good” or “bad.” Over the years, the American Dietetic Association has consistently recommended a balanced variety of nutrient-dense foods eaten in moderation as the foundation of a health-promoting diet (5,6).

**FEDERAL NUTRITION GUIDANCE SUPPORTS THE TOTAL DIET APPROACH**

The Dietary Guidelines for Americans (7), which are the centerpiece of federal food, nutrition education, and information programs, are based on a total diet approach to food guidance. The DASH (Dietary Approaches to Stop Hypertension) Eating Plan from the US Department of Health and Human Services is one of many resources that are available to assist consumers in implementing these recommendations (8-11).

The MyPyramid Food Guidance System is another example of a dietary pattern that uses a total diet approach to ensure nutritional adequacy and healthful food choices. MyPyramid was released in 2005 as an updated graphic to replace the Food Guide Pyramid. The developers of the Dietary Guidelines for Americans and MyPyramid found that consumers and educators preferred dietary guidance that enables consumers to eat in a way that suits their individual tastes and lifestyles (8,12,13). The concept of monitoring discretionary calories (solid fats, added sugars, alcohol) was introduced to allow consumers to choose small amounts of less-nutrient-dense foods while meeting nutrient needs within caloric limits (14). For example, consumers can balance a small amount of low-nutrient or high-energy-density food or beverage (eg, fried food, butter/margarine, jelly, alcohol) with nutrient-dense foods (vegetables, whole grains, nonfat milk) to achieve an overall healthful dietary pattern (13). However, the discretionary calorie values can be quite low (150 kcal/day), such that if an individual ate a fried chicken entree, it would be impossible to stay within the recommended limits with the addition of other high-energy foods. Thus, large servings of foods or beverages high in solid fats, added sugars, or alcohol are not compatible with the Dietary Guidelines for Americans, but limited quantities would be acceptable, provided that nutrient-dense foods comprise the bulk of the day’s choices. This message of the total diet approach must be communicated to consumers by food and nutrition professionals.

**Nutrition Labels**

Nutrition labels are a third tool that consumers can use to choose and compare foods. The Nutrition Facts label was developed by the Food and Drug Administration and its collaborating agency partners as a consumer information system. Food and nutrition professionals have found the label to be an effective educational tool that helps consumers plan their diets. For example, 48% of survey respondents reported that they had changed their minds about buying or using a food product after reading the nutrition label in 1995, as compared with 30% in 1990 (15).

**Nutrient Intake Recommendations**

The Dietary Reference Intakes (DRIs) are reference values that are used to plan and assess diets for healthy populations. The DRIs replaced the Recommended Dietary Allowances, which had been revised periodically since 1941. The new dietary standards emphasize the prevention of chronic diseases and promotion of optimal health (16). A positive emphasis was implemented, rather than “focusing solely on the prevention of nutritional deficiencies.” In addition to the Recommended Daily Allowances (RDAs), DRI categories include Estimated Average Requirements (EARs), Adequate Intakes (AIs), and Tolerable Upper Intake Levels (ULs). Each type of DRI refers to average daily intake over time—at least 1 week for most nutrients. For macronutrients, recommendations are stated as Acceptable Macronutrient Distribution Ranges (AMDRs). The AMDRs show that there is not just one acceptable value, but rather a broad range within which an individual can make diet choices based on their own preferences, genetic backgrounds, and health status. This concept of adequacy of nutrient intakes over time supports the need to help consumers understand the importance of the total diet approach.

**SUCCESSFUL COMMUNICATION CAMPAIGNS AND PROGRAMS**

Teaching consumers to make wise food choices in the context of the total diet is not a simple process. Depending on the audience and the situation, a variety of nutrition information, communication, promotion, and education strategies may be needed for an appropriate and effective nutrition intervention. It may be necessary to suggest a change to a more healthful lifestyle in terms of small steps that are achievable in increments, so that these can build to broader successes in improving fitness or dietary quality (17). In addition, successful campaigns often include the coordinated efforts of a number of agencies and organizations with similar health promotion goals (4,17-19).

A growing body of evidence supports the recommendation to design behavior-oriented food and nutrition programs that are targeted to help learners adopt a total diet approach that is sustainable and fits individual preferences. Nutrition education research supports the identification of components that are effective across various types of interventions (17,20).

**PSYCHOSOCIAL CONSEQUENCES OF GOOD AND BAD FOOD MESSAGES**

Categorizing foods as good or bad promotes dichotomous thinking. Dichotomous thinkers make judgments in terms of either/or, black/white, all/none, or good/bad and do not incorporate abstract or complex options into their decision strategies.

**The Magic Bullet Approach**

Thinking in terms of dichotomous or binary (either/or) categories is common in childhood. Almost all elementary-age and half of middle school children believe that there are good and/or bad foods (21). Although the ability to think in more abstract and complex modes is prevalent among adolescents and adults, consumers of all ages tend to rely on dichotomous thinking in certain situations (22).

An example of dichotomous thinking is the quick fix or “magic bullet” approach to weight control. As long as one stays on the diet (target behavior) the person feels a sense of perceived control (self-efficacy). However, when an individual encounters a high-risk
situation such as a tempting food (eg, a cookie), loss of control may occur, depending on the individual’s emotional state, interpersonal conflict, and social pressure (23).

In this scenario, a cookie would be regarded as a forbidden food and a dieter who yields to a desire for a cookie would tend to say, “I ate the cookie. I have blown my diet. I might as well finish the rest of the box.” This pessimistic approach becomes self-fulfilling, as the subject believes that there is not much that can be done once a loss of control occurs (24). A skilled nutrition counselor might reduce the probability of relapse by increasing awareness of nutrition (knowledge), teaching coping skills (alternative behaviors), incorporating personal favorites in individualized eating patterns, and promoting acceptance of personal responsibility and choice (“I can refuse to eat it” or “I can occasionally enjoy a small portion”). The option of providing simple, one-size-fits-all decision rules may be an expedient approach to education and counseling, but it often misleads consumers into thinking that a given type of food is always a positive or negative addition to the diet. The alternative of offering more comprehensive and targeted education involves context-based judgment. This type of educational message is more difficult to address in language that is easy to understand and apply, but it is more likely to help the consumer to make well-reasoned food choices and adopt behavior patterns that are sustainable over time (17).

All-Good or All-Bad Foods? Problems occur when a food or food component is oversimplified as all good or all bad. The increased risks for cardiovascular disease associated with ingestion of trans fat produced during processing of foods might lead to the classification of all trans fat as bad. However, a type of trans fat that occurs naturally from ruminant animal sources (dairy and meat), conjugated linoleic acid, has far different effects on metabolic function, genetic regulation, and physiological outcomes (25). In contrast to the atherogenic nature of most synthetic forms of trans fat, conjugated linoleic acid has been shown to have beneficial effects on cardiovascular disease, diabetes, immune response, energy distribution, and growth. To avoid this confusion, the Food and Drug Administration has excluded the naturally occurring trans fat that is in a conjugated system from its definition of trans fat for nutritional labeling (26).

Conversely, even foods associated with a healthful diet such as egg whites and soybeans should not be oversimplified as being perfect. Egg whites are low in cholesterol and high in protein, yet they are also so low in zinc that they can induce a zinc-deficiency when used as a primary or sole source of protein in the diet (27). Similarly, soybeans have n-3 fatty acids, flavonoids, and phytoestrogens with health-promoting properties, but soy also contains phytates that diminish absorption of zinc and iron (28,29) and the health benefits of adding soy to the diet have not been consistently supported by research (30). For example, animal studies in which soy intake was higher than that found in Asian diets found an increase in tumor growth (31). Thus, foods such as egg white and soy cannot be classified as completely good or bad, but rather their value is determined within the context of the total diet. Furthermore, lists of good and bad foods were considered one of the “Ten Red Flags of Junk Science” by the Food and Nutrition Science Alliance, a collaboration of seven scientific professional organizations (5).

With over 45,000 food items in the average supermarket (32) and an infinite array of recipe combinations, the futility of attempting to sort all food items into dichotomous categories becomes evident, leading to confusion and frustration. Thus, the total diet approach, with its emphasis on long-term eating habits and a contextual approach to food judgments such as discretionary calories, provides more useful information to guide long-term food choices.

CONTROVERSIES WITH THE TOTAL DIET APPROACH

One concern with the total diet approach is that it may be viewed as permitting unlimited inclusion of low-nutrient-density foods and beverages or encouraging overconsumption of foods with marginal nutritional value. In a study using a Dietary Guidelines index as a measure of healthful diet quality, heavy consumption of savory, high-fat snacks was associated with poor diet quality (33). In addition, three national surveys of the US population have documented that portion sizes and energy intakes have increased substantially over time both inside and outside the household (34). Nutrition education is critical because individuals tend to eat more calories when served large portions of foods, especially energy-dense foods (35). Yet foods low in nutrient density can fit as part of the total diet, if these foods are consumed as discretionary calories in combination with appropriate quantities of other recommended foods (36).

Another controversy with the total diet approach is the emphasis on variety. Choosing a variety of foods has been a cornerstone principle in the Dietary Guidelines for Americans, but that emphasis has changed from overall variety to varying choices within the food groups. Choosing a variety of nutrient-dense foods helps to ensure adequate intakes of more than 50 nutrients that are needed for growth, repair, and maintenance of good health. However, an increase in food availability and variety in food choices may be a cause of overeating, especially when applied to energy-dense foods (37). For example, the multitude of choices at a buffet and the temptation to taste each food can result in a greater intake of calories than from a plated or family-style meal. When McCrory and colleagues (38) analyzed 1999 food consumption data, increases in energy intakes and body fatness were associated with ingestion of a high variety of sweets, snacks, condiments, entrees, and carbohydrate foods, coupled with a limited variety of vegetables. Krebs-Smith and colleagues (39) observed that a variety of foods was associated with nutrient adequacy to a point, beyond which there was no improvement. When nutrient needs are satisfied, eating additional foods provides excess calories without added health benefits.

WHY WE EAT WHAT WE DO

Convenience, Cost, and Confusion

Although 87% of consumers reported being very or somewhat concerned about nutrition, widespread improvements in dietary changes have not occurred (2). Shoppers say healthful
foods are not readily accessible at fast-food restaurants or take-out places and the cost is too high. Also, confusion exists over conflicting information about the healthfulness of the wide range of foods that are available (40). Americans have made a number of positive dietary changes in the past 20 years (41), such as increased consumption of fruits, vegetables, and grains. However, many still fail to include adequate servings of fruits, dark green vegetables, orange vegetables, mature beans and other legumes, and low-fat dairy products. At the same time, added sugars and fats contribute substantial calories to the American diet.

Taste and Food Preferences
Taste is generally the most important factor influencing food choice. The six basic taste sensations—sweet, sour, bitter, salty, umami (L-amino acid), and fatty acids—are affected initially by genetics, but these can be modified by physiological and metabolic variables such as feelings of contentment and satiety (42). Taste preferences are further developed by experiences related to one’s sex, age, weight, and eating behaviors (43). For example, taste preference for sweetness is inborn. This preference for sweetness, in conjunction with familiarity, is the most significant determinant of food choices in young children (44). Because young children (45) and even rats (46) can learn to prefer high-energy foods, the avoidance of these foods may be foiled by feelings of deprivation because of a well-established desire to eat sweet and high-calorie foods. Consequently, small portions of these foods on special occasions are permissible within the context of the total diet approach.

Nutrition and Weight Control
Nutrition is a major predictor of food choices even though it is less of a personal concern for most consumers than taste, convenience, or cost. A high level of nutrition knowledge is positively associated with overall diet quality (47) and a greater weight loss in dieting women (48).

Food choices are significantly influenced by misdirected concerns over weight control (49). One common consequence of many popular weight-control diets is a preoccupation with food and eating (50). In the context of self-improvement, the dieter may restrict foods or macronutrients considered to be “fattening.” Rather than focus on total restriction of particular foods, which can lead to feelings of deprivation (and subsequent recidivism), individuals are encouraged to avoid excessive weight gain by undertaking lifestyle changes that represent a balanced and healthful diet and an exercise pattern that can be maintained throughout life (7,51).

Abundance of Foods with Healthful Properties
The demand for nutritious foods has stimulated the food and agriculture industries to develop a variety of products, including functional foods that provide potential health benefits beyond basic nutrition and new agricultural and biotechnology techniques. Many new biotechnologies have enhanced the quality, safety, nutritional value, and variety of foods available to the consumer (52). Concern has been raised that increasing abundance of functional foods may contribute to increased energy intakes if individuals tend to think it is acceptable to eat larger quantities of foods that are good for them (53), such as reduced-fat cookies. As consumer choices continue to expand, food and nutrition professionals need to stay current through continuing education to meet the needs of an ever-changing society.

Physiological Influences
Digestive decline, poor dental health, swallowing difficulties, bone mineralization, dementia, and/or diminished basal metabolism affect food choices of many individuals, especially older adults. Disease states and treatments, such as dialysis for chronic renal failure (54) and chemotherapy for cancer (55), also change food habits. For example, patients with renal failure tend to dislike sweet foods, vegetables, and red meats, whereas protein foods (eggs, cheese, meat) often become unpleasant for patients undergoing treatment for cancer. More recently, the profound significance of one’s genes on obesity and feeding behaviors is being investigated (56). Because of the great influence of pathophysiologies on food choices and nutrient needs, it is important to stress that the total diet approach is designed for the general, healthy population, rather than individuals with chronic diseases.

Lifestyle Influences
Time. One of the most significant influences affecting food choices is the lack of time in our rapidly changing lifestyle. In the 2000 American Dietetic Association Trends Survey, 38% indicated that, “It takes too much time to keep track of my diet” (57). This is even higher than the 1995 American Dietetic Association Trends Survey, in which 21% cited time constraints as an obstacle to change (58).

With 60% of American women trying to juggle work with families and a desire to spend less than 15 minutes to prepare a meal (59), there has been a virtual explosion of convenience foods, take-out, value-added (precut, prewashed), and ready-made foods. The traditional role of mothers preparing healthful foods from scratch is being replaced by parents purchasing take-out foods from a variety of vendors.

Culture. Cultural food practices not only affect taste preferences, but also shopping habits, manners, communication, and personal interactions. In 2005, the minority population totaled 98 million, or 33%, of a total of 296 million (60). As people from varying backgrounds become acculturated into US society, their dietary habits tend to change from a pattern based on whole grains and vegetables to foods that are higher in fats and sugars (43). Sensitivity to what might be considered good or bad by persons from varying cultures is critical for food and nutrition professionals, who have the complex job of tailoring advice to each individual within a cultural context. For example, to improve the diet of Latinos who are prone to diabetes and may overemphasize some traditional foods, a food and nutrition professional could provide guidance on alternate choices such as brown rice and whole-wheat tortillas and encourage portion control (61).

Economics. Food prices vary in their effects on food choice behaviors. In 1993, 53% of Americans thought that
economic factors were the most important issue facing this country; by 1999, only 12% held this belief (59). In individuals with lower incomes, convenience is rated as a more important influence on food choices as compared with those with higher incomes (62), reflecting limitations in transportation, cooking facilities, food preparation skills, grocery store locations, and availability of healthful food choices (63, 64). However, financial issues were associated with limited compliance with dietary guidelines in a recent study of low-income women (65).

Environmental Factors
Attitudes and Beliefs. Attitudes and beliefs about foods tend to reflect cultural values, but they change more quickly with time (66). For example, perceptions, attitudes, and beliefs about fat have shifted in the last half of this century, much of it because of social trends and marketing campaigns. Also, the typical “meat and potatoes” plates have been replaced by varying cuisines and preparation techniques (67). An illustration is a 1950s restaurant meal of beef steak, fried onion rings, lettuce wedge with Thousand Island dressing, and baked potatoes with butter, cheese, and sour cream. Today, meals might be lower in fat and reflect changing tastes, such as pasta with chicken, sun-dried tomatoes, and roasted vegetables, accompanied by a salad of mixed field greens, dried cranberries, and balsamic dressing.

Social Influences. Social factors substantially influence eating behaviors. For example, the presence of a friend (but not a stranger) while eating quickly with time (66). For example, perceptions, attitudes, and beliefs about fat have shifted in the last half of this century, much of it because of social trends and marketing campaigns. Also, the typical “meat and potatoes” plates have been replaced by varying cuisines and preparation techniques (67). An illustration is a 1950s restaurant meal of beef steak, fried onion rings, lettuce wedge with Thousand Island dressing, and baked potatoes with butter, cheese, and sour cream. Today, meals might be lower in fat and reflect changing tastes, such as pasta with chicken, sun-dried tomatoes, and roasted vegetables, accompanied by a salad of mixed field greens, dried cranberries, and balsamic dressing.

Media. The media is a powerful force influencing the food choices of Americans. In 2004 approximately $11 billion was spent for food, beverage, and restaurant advertising in magazines, newspapers, television, and radio (70).

When Kellogg’s high-fiber cereals first added health claims about cancer prevention and dietary fiber to their package label, sales escalated 47% within the first 6 months (71). Trade association programs have promoted generic advertising, such as the one for fluid milk (“Got Milk?”), which featured celebrities wearing milk mustaches. Remarkably, these campaigns slowed or stopped the declining trend of milk consumption and 47 lb of milk were purchased for each advertising dollar spent (72). Thus, consumers can change their perceptions of foods and food choices when given repeated and positive nutrition messages.

Product Safety. Concerns about product safety can affect food choices profoundly. For example, the 1988 scare of Alar (Chemtura Corporation, Middlebury, CT) in apples resulted in near hysteria among mothers who thought they had fed their children tainted foods. Apple sales plummeted as a result, even though the research behind the scare was controversial. When Alar (a plant growth regulator) was removed from use in some states and the perceived risk of cancer minimized, consumers returned to eating apples as in the past (73). Although it is essential to acknowledge that truly unsafe foods are never good food choices, in this case, positive messages about the benefits of diets with plenty of fruits and vegetables help restore balance in diet and health goals.

COMPLEXITIES OF CHANGING EATING BEHAVIORS
The impact of nutrition information on promoting healthful lifestyles depends on how effectively nutrition messages are communicated to consumers. Nutrition information must be presented with sufficient context to provide consumers with a broader understanding of the issues and to determine whether it applies to their unique needs (4). Communications and educational programs must emphasize the importance of considering a food or meal in terms of its contributions to the total diet. This type of communication can be more effective when educators use appropriate theories and models of factors related to human behavior (18). Although providing information can be effective in promoting healthful behaviors, communications designed to build skills or help learners master more complex concepts usually benefit from the inclusion of principles from health-behavior theories and models (Figure).

Adapting Behavior-Oriented Theories for Food and Nutrition Communication
Knowledge-Attitude-Beliefs. One of the simplest models for food and nutrition communication is the Knowledge-Attitude-Beliefs approach, which is based on the often-mistaken assumption that the person who is exposed to new information will attend to it, gain new knowledge, change attitude, and improve dietary patterns (20). This approach can be effective if the individual is already motivated and the new information is easy to follow. For example, a list of foods that are high in iron may be a successful trigger to dietary improvement for someone concerned over a recent diagnosis of anemia. However, without such a “teachable moment,” increased knowledge, such as a memorized list of high-iron foods, often fails to result in changed behavior. This is true especially if following the advice is not convenient or congruent with personal taste preferences.

Health-Belief Model. The Health-Belief Model is one of the most widely used theories in health education (74). An example is the promotion of foods high in folate to reduce the risk of certain birth defects. This model explains human behavior and readiness to act via four main constructs: perceived susceptibility (“How likely am I to get heart disease and how soon?”), severity (“How bad would it be to have heart disease?”), benefits (“Will I feel better if I change the fats that I eat?”), and barriers (“How hard will it be to make these changes in my fat intake?”). A recent addition to the Health-Belief Model is the concept of self-efficacy (“How confident am I that I can succeed in changing the fats that I eat?”). The Health-Belief Model is useful when the target audience perceives a problem behavior or condition in terms of health motivation. Yet many consumers “tune out” repeated messages of gloom and doom for habits that seem common and without immediate negative consequences.
I realize that eating whole fruit is a good way to help me increase my intake of fruits and vegetables each day. I also realize that I have been getting most of my fruit in the form of juice. I will start buying more whole fruit and less juice the next time I go to the supermarket.

Stages and processes of change

Transtheoretical Model

If the vending machines at my office have fruit, I will be more likely to select it as a snack.

Reciprocal determinism

Social Cognitive Theory

I know that I can eat more fruit and less juice by learning which fruits are in season and putting those fruits on my weekly shopping list.

Self-efficacy

Social Learning Theory, Transtheoretical, and Health-Belief Models

Whole fruits have fiber that helps me feel full. If I drink juice instead of eating whole fruit, I would get less fiber and have a harder time managing my calorie intake. That could lead to gaining excess weight which would make me feel less attractive. However, I may not be able to eat whole fruit as often as I want to because it is easier to find fruit juice when I need something that’s fast and easy from a vending machine or a convenience store.

Perceived benefits, threats, and barriers

Health-Belief Model

Calorie per calorie, whole fruit has more dietary fiber than fruit juice.

Health information

Knowledge-Attitude-Behavior

Figure. Example of how behavioral models can be used to provide positive nutrition messages for increasing consumption of fruit (eg, eating whole fruit more often than juice). Each level adds important concepts to factors addressed by models on the levels below it.

Social Cognitive Theory/Transtheoretical Theory. When problem behaviors are closely tied to social or economic motivations, more comprehensive theories and models may be effective tools for planning nutrition interventions (75). For instance, if an educator needs to promote milk-based foods as sources of dietary calcium, Social Cognitive (Social Learning) Theory would support an educational intervention addressing behavioral capability (knowledge and skills needed to select and prepare milk-based foods), reciprocal determinism (availability of milk-based foods in vending machines and restaurants), expectations (beliefs about osteoporosis as a consequence of avoiding milk-based foods), self-efficacy (confidence in one’s ability to use more milk-based foods), observational learning or modeling (seeing peers and other role models drinking milk), and reinforcement (positive or negative feelings that occur when milk drinking is practiced).

The Transtheoretical Model/Stage of Change (76) describes learners in terms of their progress through a series of behavioral stages (stages of change). It also includes related dimensions such as processes of change, self-efficacy, and decisional balance (pros/cons) and allows educators to tailor educational messages to learners’ needs and readiness for behavioral change.

Social Marketing. Social marketing is a behaviorally focused process that adapts commercial marketing techniques to programs designed to influence the behavior of target audiences to improve their well-being. Social marketers work to create and maintain exchanges of target audience resources, such as money or time, for perceived benefits such as feeling better or having more independence. Just as educators may use a range of theoretical concepts to design effective interventions, marketing campaigns also may be more effective when important determinants of behavior are identified and used in a media campaign (77).

The Fruits and Veggies: More Matters campaign and its predecessor, the 5-A-Day for Better Health campaign, are examples that adapt marketing theory to food and nutrition communication (78). Designers of these campaigns studied the preferences and habits of various audience segments; developed messages that would be perceived as relevant, comprehensible, and actionable; and then distributed these to consumers in settings such as supermarkets, restaurants, and the Internet (79). The effectiveness of these campaigns in increasing Americans’ consumption of fruits and vegetables is well known.

Regardless of the theoretical basis of communications, messages must be consistent with an emphasis on a total dietary pattern that is balanced and moderate, and guard against inadvertent use of oversimplified messages such as good/bad foods. Otherwise, communicators may not be effective in achieving their educational goals (80).

The Socio-Ecological Dimension

In addition to programs that target behavioral practices and dietary knowledge/skills of individuals and families, it is often appropriate to promote behavioral changes and dietary
improvements at the broader organizational or societal levels. A socio-ecological model has been developed to guide programs that facilitate choices of targeted systems, environment, and public policy change within organizations at the community and state levels (81).

REDUCING NUTRITION CONFUSION
To reduce confusion from the high volume and apparent inconsistencies of nutrition advice, the following should be considered when designing nutrition education for the public:

- Promote variety, proportionality, moderation, and gradual improvement. Variety refers to an eating pattern that includes foods from all MyPyramid food groups and sub-groups. Proportionality, or balance, means eating more of some foods (fruits, vegetables, whole grains, fat-free or low-fat milk products), and less of others (foods high in saturated or trans fats, added sugars, cholesterol, salt, and alcohol). Moderation may be accomplished through advice to consumers to limit overall portion size and to choose foods that will limit intake of saturated or trans fats, added sugars, cholesterol, salt, and alcohol. To make gradual improvement, individuals can take small steps to improve their diet and lifestyle each day (16).
- Emphasize food patterns, rather than individual nutrients or individual foods, as key considerations in evaluating and planning one’s food choices. Be aware of the social, cultural, economic, and emotional meanings that may be attached to some foods and allow for flexibility whenever possible. Understand that social and cultural aspects of food consumption are essential for planning educational programs to help correct nutritional problems of individuals and population groups (82).
- Acknowledge the importance of obtaining nutrients from foods, rather than relying on nutrients from supplements or fortified foods. Although nutrient modifications are recommended when food intake is inadequate to meet specific needs (eg, iron, folic acid, vitamins B-12 and D for some population groups), it is important to stress that a diet based on a wide variety of foods remains the preferred overall source of nutrients (83). Numerous bioactive compounds in foods such as phytochemicals and ultra trace elements have been identified that have potential health benefits. Yet the precise role, dietary requirements, influence on other nutrients, and toxicity levels of these dietary components are still unclear. Furthermore, foods may contain additional nutritional substances that have not yet been discovered. Thus, appropriate food choices, rather than supplements, should be the foundation for achieving nutritional adequacy (7).
- Stress that physical activity complements the total diet approach because it permits individuals to help manage weight and lowers the risk of premature diseases. The minimum amount recommended for health benefits by MyPyramid and the Dietary Guidelines for Americans is 30 minutes, preferably each day. To avoid weight gain, 60 minutes per day may be necessary, and this may increase up to 90 minutes to maintain weight loss.

ROLE OF FOOD AND NUTRITION PROFESSIONALS
Food and nutrition professionals have a responsibility to communicate unbiased food and nutrition information that is culturally sensitive, scientifically accurate, medically appropriate, and feasible for the target audience. Some health and nutrition experts and many “pseudo-experts” promote specific foods or types of food to choose or avoid in order to improve health. A more responsible and effective approach is to help consumers understand and apply the principles of healthful diet and lifestyle choices. Unless there are extinguishing circumstances (eg, individuals with severe cognitive or physical limitations such as dementia or renal failure), the total diet approach is preferred because it is more consistent with research on effective communication and inclusive of cultural/personal differences. To achieve this goal, the Board of the American Dietetic Association approved the objective to focus nutrition messages on total diet, not individual foods (84).

Effective Communication Strategies
To be communicated effectively, educational messages and counseling interventions should:

- focus on high-priority personal and/or public health needs;
- provide a proactive, positive, and practical approach;
- promote an enjoyable pattern of diet and activity choices as part of a long-term overall healthful lifestyle;
- use successful educational strategies based on theories and models that promote behavioral change; and
- evaluate and share information on effectiveness of food and nutrition programs.

As leaders in nutrition communication, food and nutrition professionals need to continue strengthening skills, updating competencies, and documenting outcomes. Suggested techniques to achieve these goals are:

- build coalitions with industry, government, academia, and organizations;
- use a full range of available and appropriate communication technologies and take advantage of opportunities to communicate with professional colleagues and the public, such as giving presentations and writing publications to influence social norms and public policy;
- act as role models of active participation in local and professional associations;
- maintain state-of-the-art knowledge through continuing education; and
- take a professional and unbiased approach to promoting healthful eating and physical activity patterns.

References


Background
Unintended consequences can be defined as “any intervention in a complex system that may or may not have the intended result, but will inevitably create unanticipated and often undesirable outcomes.” While many people feel that simple nutrition recommendations can do no harm, often this type of advice can be shortsighted and lead to unintended and unhealthful consequences if the end result is an unbalanced diet. Anecdotal evidence of this phenomenon abounds; the most strongly substantiated examples include:

• **The low-fat messages** directed at consumers during the 1980s and ’90s, intended to help them lose or manage weight and reduce their risk of heart disease, actually had the opposite effect as consumers misunderstood “low fat” to mean “low calorie,” which resulted in over-consumption. Between 1971 and 2000, the percent of calories from fat ingested by Americans decreased, but total fat intake increased and overall caloric consumption increased by 22 percent in women (corresponding to an extra 335 calories per day) and 7 percent in men (168 calories per day). In addition, the simple dietary recommendation to consume only low-fat or non-fat foods may influence an individual to restrict his or her intake of nuts, fish, avocado or oils that contain generous amounts of essential fatty acids, important to the inflammatory response and brain development. Focus–group research has found that consumers lack a definitive understanding of dietary fats, with many overwhelmed and confused about the various types of fats.

• **Avoiding or limiting whole food groups**—in an attempt to reduce fat intake, lose weight, avoid animal products or out of concerns for intolerance symptoms—may similarly result in short-term nutrient deficiencies and long-term health consequences. Deficiencies in calcium, often the result of suboptimal dairy consumption, can result in fractures in children and osteoporosis and osteomalacia in adults. In fact, intakes of calcium, magnesium, potassium, zinc, sodium, folate, thiamin, riboflavin and vitamins B-6, B-12, A, D and E have been shown to be higher as more dairy is consumed. Low-carbohydrate diets, popular for their purported weight loss and glucose-regulatory effects, have been linked to suboptimal intakes of vegetables, fruit, vitamin C and fiber, and to a higher consumption of meat, cholesterol and total fat intakes. Research shows that eating a diet rich in...
Whole grains is associated with reduced risk of heart disease, certain types of cancer and type 2 diabetes, and may also help in weight management.

- **Weight-loss diets** are beginning to be seen as a risk for weight gain. An analysis of 31 studies on dieting found that dieting is a consistent predictor of weight gain, with up to two-thirds of dieters regaining *more* weight than they lost. A prospective study in 17,000 children ages 9 – 14 years old found that dieting predicted binge-eating behavior and concluded that, "... in the long term, dieting to control weight is not only ineffective, it may actually promote weight gain." Another study in teens found that dieters had twice the risk of becoming overweight compared to non-dieting teens.

**Well-intentioned initiatives can result in unintended consequences**

Often, nutrition and health professionals do not realize the impact a public-health initiative may have on consumer perceptions. For example, banning certain foods on school campuses in an attempt to improve the diets of children and adolescents may convey the message that these foods are “bad” or “unhealthy.” For example, pizza might be perceived as unhealthy for its fat content and flavored milk for its high-fructose corn syrup—when, in fact, these nutrient-dense foods can be incorporated into a healthful eating plan. Such well-intended mandates send the message that foods containing no “negative components” are healthy—possibly resulting in consumer perceptions, for example, that diet soda is healthier than chocolate milk and trans fat-free crackers are healthier than nuts. Research on consumer perceptions resulting from such mandates—and implications on food choices—needs to be conducted to better formulate initiatives and policy with the desired effects.

**Consumers show readiness for more comprehensive advice**

It is important for health professionals to understand what issues are most important to consumers in order to create effective nutrition and food-safety communications that motivate consumers to implement behavioral change. The American Dietetic Association’s (ADA) most recent survey on attitudes, knowledge, beliefs and behaviors around food and dietary habits sheds some light on how consumers feel about food and dietary advice:

- Approximately 67 percent of those surveyed said diet, nutrition and physical activity are “very important” to them personally.
- Consumers are information-savvy, with 40 percent of them strongly agreeing that they actively seek information about nutrition and healthy eating.
- However, 38 percent strongly agree that they are always hearing information about what not to eat, rather than what they should eat.

Consumers also have the mindset that food holds a key role in promoting health. According to research conducted by the International Food Information Council:

- 60 percent or more of Americans somewhat or strongly believe that certain foods and beverages can provide multiple health benefits.
- More than 80 percent say that they are currently consuming, or would be interested in consuming, foods and/or beverages for such benefits.

Unfortunately, the “good foods, bad foods” myth is still being propagated, with 54 percent of respondents saying that based on information they’ve heard, they strongly believe there are some foods that should never be eaten. This has increased since 2002, when 43 percent agreed with the statement. This dichotomous belief about foods is fueled directly by the increasingly common, simplistic nutrition messages on exclusion—versus inclusion and diversity—of food choices. Often, the more forbidden a food is, the more desirable it becomes to some consumers.

While the most popular sources of food and nutrition information were television, magazines and the Internet—media that lend themselves to sound-bite, simplified messages—the most credible sources were dietitians, nutritionists, doctors and nurses.

Thus, the average consumer is extremely interested in health and nutrition information and in improving his or her health and that of his or her family. **This consumer receptivity to food and nutrition information, along with the credibility the health professional has built with the public, provides a unique opportunity for the nutrition community to make positive changes in our nation’s eating practices.**
Food-grouping system as the cornerstone to nutrition advice

For more than 100 years, USDA has provided consumers with dietary guidance using a food-grouping system. These systems are meant to distill complex dietary information into a simplified structure that can be easily remembered and implemented. The average consumer—young and old—is capable of remembering the serving requirements for five food groups, yet would have a great deal of difficulty remembering the recommendation for each key nutrient listed in the Dietary Reference Intakes. The most recent food-grouping system—USDA’s MyPyramid, released in 2005—is complex in that it consolidates a large volume of science-based information applicable to meet a wide range of needs, yet is simple enough to be feasible and actionable.

Because the food groups are based on “key nutrients”—the milk group provides calcium, potassium, vitamins A, B12 and D; the fruit group provides vitamins A, C and fiber; the vegetable group provides vitamin C, phytonutrients and fiber; the meats, beans and nuts group provides protein, iron and zinc; and the breads and cereals group provides fiber, B-vitamins, carbohydrates and iron—it is unwise to omit a whole food group from one’s diet.

Unfortunately, many popular diets are based on limiting or omitting whole food groups in overly simplistic attempts to reduce one’s calorie intake. These limitations may result in a deficiency of key nutrients in one’s diet, eventually leading to fractures, chronic disease or a myriad of other issues. **It remains critically important to consume a variety of foods and adequate amounts from each of the five food groups.** Each of the groups offers abundant variety to meet individual taste preferences as well as cultural, lifestyle and economic needs.

Nutrition education is key to balanced diets

Education is an integral component of translating simple or complex dietary messages into action to ensure that consumers make commensurate modifications to balance their diets and maintain adequate nutrient intakes. In today’s environment, the time and opportunity for nutrition education is limited, yet creative ways can be found to extend advice that is actionable, balanced and avoids unintended and unhealthy consequences. Communicating messages through materials and interactive pieces on institutional websites, in group classes and via LISTSERVs or blogs can be effective. Materials developed and distributed through health care providers and worksite wellness centers can also reach a large number of clients and patients. Regardless of the venue, **the focus is to promote a balanced, individualized diet that includes adequate amounts and varieties of foods from all food groups and that sustains health over the long term.**

The health professional can also contribute to creating healthier environments by working with retailers, restaurants and policy makers to improve access and affordability of foods deemed underconsumed—such as fruits, vegetables, whole grains and low-fat dairy foods. Advocating for healthier—yet not overly restrictive—environments, paired with nutrition education, is key to helping consumers make healthier choices.

Nutritional individualization needs to be factored into any diet plan

Research on the importance of nutritional individualization is accumulating at a rapid pace. With this knowledge comes confusion, however, as consumers may be asking:

- How do I synthesize all this information, including nutrigenomics, lifestyle and disease risk, to optimize my health?
- If my neighbor is successful with a certain diet plan, will it work for me?
- Does everyone need to be on a low-sodium diet, or just those who are “salt sensitive”?
- If I am active, at a healthy weight and not at risk for heart disease, do I really need to worry about saturated and trans fats?
- What specific types of fruits and vegetables are better for those at risk of cancer?

Today, criteria that consumers use to make food choices are broadening. Factors traditionally driving food-choice decisions, such as taste, convenience, price and nutritional value, continue to be paramount in the minds of most consumers. However, the mindset is shifting among some consumers to include sustainability issues such as the environment (organic, locally...
grown), production (antibiotic-free, hormone-free, GMO-free) and animal-welfare issues (wild, free range and line caught). The health professional needs to consider these environmental and social factors when helping clients prioritize their health goals and formulate food plans.

Foods reign over supplements
While it seems an easy solution to pop a pill for a little extra nutrition “insurance,” some consumers may rely too heavily on supplements to meet their nutritional needs, or have the misperception that their diets do not matter as long as they take their supplements. On the contrary, it is far superior to get the nutrients one needs from foods for a variety of reasons:

- Supplements, a concentrated source of nutrients that are often not chewed or consumed with other foodstuffs, pose a greater risk of toxicity than food sources of nutrients.
- The ratio of nutrients required to maintain physiological functions is generally appropriate in foods but often imbalanced in supplements, resulting in competition for intestinal absorptive sites, over- or under-absorption of nutrients and, in extreme cases, physiological imbalances. Zinc, iron and calcium, for example, may compete for intestinal absorptive sites such that an inhibitory effect is seen if one nutrient is consumed in higher amounts than the others.
- Components such as phytonutrients, fiber, bioactive peptides and other non-nutritive factors in our foods are critical to optimal health and prevention of chronic disease, yet most of these components have not been packaged in supplement form. Other important non-nutrients that are present in foods have yet to be identified.
- Absent the pleasures and social aspects of eating, the individual may lose the importance of foods and eating in a healthful lifestyle.

Supplements can play an important role in a well-thought-out diet plan when, for example, an individual is not able to meet his or her requirement due to food allergy, intolerance, aversion or inability to ingest the needed amount. However, the basis for a healthful diet should remain whole foods in as close to their natural form as possible.

Call to Action
In today’s world of sound bites, magic bullets, immediate gratification and quick fixes, it is more important than ever that health professionals be the voice of reason and sound science. Consumers need to understand that heeding overly simplistic, singular nuggets of nutrition advice that eliminate or trivialize entire food groups can do them harm. They need to look beyond the obvious, short-term benefits to the potential long-term health consequences that may arise from neglecting to consider all factors in their dietary choices.

Use behavior-based materials that reflect sound science
As nutrition professionals, we must continue to provide sound nutritional advice based on the most current consolidation of research and the most recent versions of the Dietary Reference Intakes, Dietary Guidelines and MyPyramid. Helping clients plan out specific diets to meet their individual requirements and incorporating this broader approach will give them the confidence and perspective needed to ward off the conflicting, questionable advice they will undoubtedly hear from other sources.

At the same time, we need to ensure that the materials we develop and/or utilize are based in successful behavior-change approaches. Utilizing client-centered counseling techniques, considering the client’s readiness to change and framing specific small steps for nutrition advice in a “total diet” context are critical to the long-term success of dietary advice.

Behavior-based tools to help health professionals and consumers consider food choices from a broader perspective include self-monitoring tools, which are shown to be highly effective. Examples include:

- The MyPyramid Menu Planner helps consumers plan balanced menus by searching for foods and beverages they plan to eat.
- The Personal Nutrition Planner individualizes MyPyramid recommendations for the user according to various factors such as physical activity, ethnicity, disease risk and medical conditions.
- The daily Meal Planner helps consumers balance healthy food choices over the course of each week by planning and organizing their daily meals and importing this into a grocery shopping list to discourage impulse buys.
Use nutrient rating systems in a balanced fashion
Consumers need practical tools that consider food choices from this broader perspective ... translating the “what” into the actionable “how.” Nutrient-profiling systems are being developed to simplify healthy food choices for the consumer by labeling foods as being more or less healthful. There are a number of different systems introduced by manufacturers, retailers and nonprofit groups, most of them weighing the positive (e.g., calcium, protein, vitamins) against the negative (fat, saturated fat, sodium) attributes of a food and resulting in a final average score for each product. For this reason, these systems can promote a mentality of “good food, bad food” rather than “all foods fit in moderation”—and encourage consumers to assess individual foods rather than intake over a whole day or several days. In addition, since there is no commonly accepted scoring algorithm for these systems, it is unfeasible to determine which one(s) most effectively measures the healthfulness of a food. Thus, while these systems can provide useful information to the consumer, they are not the sole solution to healthy eating. Consumers need education on how to utilize these tools as but one factor in their food-choice decisions.

Practice Points for the Health Professional
• Encourage the consumer/client to look at the total health aspect of the nutrition advice he or she is receiving, rather than focusing on the nutrient of interest. If dietary changes are made in one food group, how will it impact other selections? Are there commensurate dietary adjustments that need to take place to compensate?

• Discourage clients from omitting a food or whole food group from their diets. Such omissions may result in nutrition deficiencies. Consuming a variety of foods from each food group ensures adequate and sufficient intake of all nutrients.

• Encourage clients to obtain their nutrients from foods rather than supplements. Foods contain a number of other as-yet-undefined factors that act synergistically with each other to enhance absorption and utilization, as well as non-dietary factors like fiber and phytonutrients that play a poorly understood but critical role in our health.

Supplements are appropriate in certain cases when it is not feasible to obtain adequate amounts of specific nutrient(s) from food sources.

• Factor clients’ readiness to change into any recommendations, assessing their motivators and barriers to dietary changes. Use client-centered counseling techniques such as open-ended questions, affirmation, reflection, enhancing self-efficacy, problem solving, summarizing, goal setting and focusing on what is important to them. These techniques will optimize their accountability and ownership of the solutions and, ultimately, long-term success.

• Motivate clients to take an individualized approach to their health by helping them understand that a specific nutrient, supplement or food that allegedly assists with weight loss, reduces cholesterol levels or increases energy in their neighbor will not necessarily have the same effect on them.

• Take into account individual goals, needs and personal preferences, including ethnic and cultural diversity, to develop a dietary plan appropriate to their needs.

• Consider alternative methods of reaching consumers with balanced dietary messages, such as health care newsletters, developing or posting materials online on LISTSERVs and blogs and holding group sessions if individual consultation is not financially possible for clients.

• Make a conscious effort to provide sound nutrition advice on social-networking forums such as Facebook, Twitter, blogs and LinkedIn. Consider that the majority of blogs have no sourcing, and empower yourself to challenge inaccurate, misleading or imbalanced information posted by others, adding your “voice of reason” to the dialogue.
Resources

- American Dietetic Association: http://www.eatright.org
- USDA’s Food and Nutrition Information Center: http://fnic.nal.usda.gov
- WebMD: http://www.webmd.com

References

A Definition of Motivational Interviewing
The definition of Motivational Interviewing (MI) has evolved and been refined since the original publications on its utility as an approach to behavior change. The initial description, by William R. Miller in 1983, developed from his experience in the treatment of problem drinkers. Through clinical experience and empirical research, the fundamental principles and methodologies of MI have been applied and tested in various settings and research findings have demonstrated its efficacy. MI is now established as an evidence-based practice in the treatment of individuals with substance use disorders.

Motivational Interviewing focuses on exploring and resolving ambivalence and centers on motivational processes within the individual that facilitate change. The method differs from more “coercive” or externally-driven methods for motivating change as it does not impose change (that may be inconsistent with the person’s own values, beliefs or wishes); but rather supports change in a manner congruent with the person’s own values and concerns.

The most recent definition of Motivational Interviewing (2009) is:

“…a collaborative, person-centered form of guiding to elicit and strengthen motivation for change.”

The Motivational Interviewing Approach
Motivational Interviewing is grounded in a respectful stance with a focus on building rapport in the initial stages of the counseling relationship. A central concept of MI is the identification, examination, and resolution of ambivalence about changing behavior. Ambivalence, feeling two ways about behavior change, is seen as a natural part of the change process. The skillful MI practitioner is attuned to client ambivalence and “readiness for change” and thoughtfully utilizes techniques and strategies that are responsive to the client.

Recent descriptions of Motivational Interviewing include three essential elements:

1. MI is a particular kind of conversation about change (counseling, therapy, consultation, method of communication)
2. MI is collaborative (person-centered, partnership, honors autonomy, not expert-recipient)
3. MI is evocative (seeks to call forth the person’s own motivation and commitment)

These core elements are included in three increasingly detailed levels of definition:

Lay person’s definition (What’s it for?): Motivational Interviewing is a collaborative conversation to strengthen a person’s own motivation for and commitment to change.

A pragmatic practitioner’s definition (Why would I use it?): Motivational Interviewing is a person-centered counseling method for addressing the common problem of ambivalence about change.
A technical therapeutic definition (How does it work?): Motivational Interviewing is a collaborative, goal-oriented method of communication with particular attention to the language of change. It is designed to strengthen an individual’s motivation for and movement toward a specific goal by eliciting and exploring the person’s own arguments for change.

The “Spirit” of Motivational Interviewing
MI is more than the use of a set of technical interventions. It is characterized by a particular “spirit” or clinical “way of being” which is the context or interpersonal relationship within which the techniques are employed.

The spirit of MI is based on three key elements: collaboration between the therapist and the client; evoking or drawing out the client’s ideas about change; and emphasizing the autonomy of the client.

- **Collaboration (vs. Confrontation)**
  Collaboration is a partnership between the therapist and the client, grounded in the point of view and experiences of the client.
  This contrasts with some other approaches to substance use disorder treatment, which are based on the therapist assuming an “expert” role, at times confronting the client and imposing their perspective on the client’s substance use behavior and the appropriate course of treatment and outcome.

  Collaboration builds rapport and facilitates trust in the helping relationship, which can be challenging in a more hierarchical relationship. This does not mean that the therapist automatically agrees with the client about the nature of the problem or the changes that may be most appropriate. Although they may see things differently, the therapeutic process is focused on mutual understanding, not the therapist being right.

- **Evocation (Drawing Out, Rather Than Imposing Ideas)**
  The MI approach is one of the therapist’s drawing out the individual’s own thoughts and ideas, rather than imposing their opinions as motivation and commitment to change is most powerful and durable when it comes from the client. No matter what reasons the therapist might offer to convince the client of the need to change their behavior or how much they might want the person to do so, lasting change is more likely to occur when the client discovers their own reasons and determination to change. The therapist’s job is to “draw out” the person’s own motivations and skills for change, not to tell them what to do or why they should do it.

- **Autonomy (vs. Authority)**
  Unlike some other treatment models that emphasize the clinician as an authority figure, Motivational Interviewing recognizes that the true power for change rests within the client. Ultimately, it is up to the individual to follow through with making changes happen. This is empowering to the individual, but also gives them responsibility for their actions. Counselors reinforce that there is no single "right way" to change and that there are
multiple ways that change can occur. In addition to deciding whether they will make a change, clients are encouraged to take the lead in developing a “menu of options” as to how to achieve the desired change.

**The Principles of Motivational Interviewing**
Building on and bringing to life the elements of the MI “style”, there are four distinct principles that guide the practice of MI. The therapist employing MI will hold true to these principles throughout treatment.

- **Express Empathy**
  Empathy involves seeing the world through the client’s eyes, thinking about things as the client thinks about them, feeling things as the client feels them, sharing in the client’s experiences. This approach provides the basis for clients to be heard and understood, and in turn, clients are more likely to honestly share their experiences in depth. The process of expressing empathy relies on the client’s experiencing the counselor as able to see the world as they (the client) sees it.

- **Support Self-Efficacy**
  MI is a strengths-based approach that believes that clients have within themselves the capabilities to change successfully. A client’s belief that change is possible (self-efficacy) is needed to instill hope about making those difficult changes. Clients often have previously tried and been unable to achieve or maintain the desired change, creating doubt about their ability to succeed. In Motivational Interviewing, counselors support self-efficacy by focusing on previous successes and highlighting skills and strengths that the client already has.

- **Roll with Resistance**
  From an MI perspective, resistance in treatment occurs when then the client experiences a conflict between their view of the “problem” or the “solution” and that of the clinician or when the client experiences their freedom or autonomy being impinged upon. These experiences are often based in the client’s ambivalence about change. In MI, counselors avoid eliciting resistance by not confronting the client and when resistance occurs, they work to de-escalate and avoid a negative interaction, instead “rolling with it.” Actions and statements that demonstrate resistance remain unchallenged especially early in the counseling relationship. By rolling with resistance, it disrupts any “struggle” that may occur and the session does not resemble an argument or the client’s playing “devil’s advocate” or “yes, but” to the counselor’s suggestions. The MI value on having the client define the problem and develop their own solutions leaves little for the client to resist. A frequently used metaphor is “dancing” rather than “wrestling” with the client. In exploring client concerns, counselors invite clients to examine new points of view, and are careful not to impose their own ways of thinking. A key concept is that counselor’s avoid the “righting
reflex”, a tendency born from concern, to ensure that the client understands and agrees with the need to change and to solve the problem for the client.

- Develop Discrepancy

Motivation for change occurs when people perceive a mismatch between “where they are and where they want to be”, and a counselor practicing Motivational Interviewing works to develop this by helping clients examine the discrepancies between their current circumstances/behavior and their values and future goals. When clients recognize that their current behaviors place them in conflict with their values or interfere with accomplishment of self-identified goals, they are more likely to experience increased motivation to make important life changes. It is important that the counselor using MI does not use strategies to develop discrepancy at the expense of the other principles, yet gradually help clients to become aware of how current behaviors may lead them away from, rather than toward, their important goals.

Motivational Interviewing Skills and Strategies

The practice of Motivational Interviewing involves the skillful use of certain techniques for bringing to life the “MI spirit”, demonstrating the MI principles, and guiding the process toward eliciting client change talk and commitment for change. Change talk involves statements or non-verbal communications indicating the client may be considering the possibility of change.

OARS

Often called micro counseling skills, OARS is a brief way to remember the basic approach used in Motivational Interviewing. **Open Ended Questions, Affirmations, Reflections, and Summaries** are core counselor behaviors employed to move the process forward by establishing a therapeutic alliance and eliciting discussion about change.

- **Open-ended questions** are those that are not easily answered with a "yes/no" or short answer containing only a specific, limited piece of information. Open-ended questions invite elaboration and thinking more deeply about an issue. Although closed questions have their place and are at times valuable (e.g., when collecting specific information in an assessment), open-ended questions create forward momentum used to help the client explore the reasons for and possibility of change.

- **Affirmations** are statements that recognize client strengths. They assist in building rapport and in helping the client see themselves in a different, more positive light. To be effective they must be congruent and genuine. The use of affirmations can help clients feel that change is possible even when previous efforts have been unsuccessful. Affirmations often involve reframing behaviors or concerns as evidence of positive client qualities. Affirmations are a key element in facilitating the MI principle of Supporting Self-efficacy.
• **Reflections** or reflective listening is perhaps the most crucial skill in Motivational Interviewing. It has two primary purposes. First is to bring to life the principle of Expressing Empathy. By careful listening and reflective responses, the client comes to feel that the counselor understands the issues from their perspective. Beyond this, strategic use of reflective listening is a core intervention toward guiding the client toward change, supporting the goal-directed aspect of MI. In this use of reflections, the therapist guides the client towards resolving ambivalence by a focus on the negative aspects of the status quo and the positives of making change. There are several levels of reflection ranging from simple to more complex. Different types of reflections are skillfully used as clients demonstrate different levels of readiness for change. For example, some types of reflections are more helpful when the client seems resistant and others more appropriate when the client offers statements more indicative of commitment to change.

• **Summaries** are a special type of reflection where the therapist recaps what has occurred in all or part of a counseling session(s). Summaries communicate interest, understanding and call attention to important elements of the discussion. They may be used to shift attention or direction and prepare the client to “move on.” Summaries can highlight both sides of a client’s ambivalence about change and promote the development of discrepancy by strategically selecting what information should be included and what can be minimized or excluded.

**Change Talk**

Change talk is defined as statements by the client revealing consideration of, motivation for, or commitment to change. In Motivational Interviewing, the therapist seeks to guide the client to expressions of change talk as the pathway to change. Research indicates a clear correlation between client statements about change and outcomes - client-reported levels of success in changing a behavior. The more someone talks about change, the more likely they are to change. Different types of change talk can be described using the mnemonic DARN-CAT.

**Preparatory Change Talk**

- Desire (I want to change)
- Ability (I can change)
- Reason (It’s important to change)
- Need (I should change)

And most predictive of positive outcome:

**Implementing Change Talk**

- Commitment (I will make changes)
- Activation (I am ready, prepared, willing to change)
- Taking Steps (I am taking specific actions to change)
Strategies for Evoking Change Talk

There are specific therapeutic strategies that are likely to elicit and support change talk in Motivational Interviewing:

1. **Ask Evocative Questions:** Ask an open question, the answer to which is likely to be change talk.
2. **Explore Decisional Balance:** Ask for the pros and cons of both changing and staying the same.
3. **Good Things/Not-So-Good Things:** Ask about the positives and negatives of the target behavior.
4. **Ask for Elaboration/Examples:** When a change talk theme emerges, ask for more details. “In what ways?” “Tell me more?” “What does that look like?” “When was the last time that happened?”
5. **Look Back:** Ask about a time before the target behavior emerged. How were things better, different?
6. **Look Forward:** Ask what may happen if things continue as they are (status quo). Try the miracle question: If you were 100% successful in making the changes you want, what would be different? How would you like your life to be five years from now?
7. **Query Extremes:** What are the worst things that might happen if you don’t make this change? What are the best things that might happen if you do make this change?
8. **Use Change Rulers:** Ask: “On a scale from 1 to 10, how important is it to you to change [the specific target behavior] where 1 is not at all important, and a 10 is extremely important? Follow up: “And why are you at ___and not _____ [a lower number than stated]?” “What might happen that could move you from ___ to [a higher number]?” Alternatively, you could also ask “How confident are that you could make the change if you decided to do it?”
9. **Explore Goals and Values:** Ask what the person’s guiding values are. What do they want in life? Using a values card sort activity can be helpful here. Ask how the continuation of target behavior fits in with the person’s goals or values. Does it help realize an important goal or value, interfere with it, or is it irrelevant?
10. **Come Alongside:** Explicitly side with the negative (status quo) side of ambivalence. “Perhaps ______ is so important to you that you won’t give it up, no matter what the cost.”

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Sources


Center for Substance Abuse Treatment (1999). Enhancing Motivation for Change in Substance Abuse Treatment. Treatment Improvement Protocol (TIP) 35. Rockville, MD: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.


DIETARY PATTERNS:

Important Templates for Nutrition Guidance

The complexity of any individual food is enormous. The “whole” food is more than the sum of its nutrient parts, and foods often convey benefits greater than their individual nutrients. Dietary patterns introduce an even greater complexity to dietary guidance, but with the potential to provide far-reaching benefits. This issue of Health Connections explores the health and lifestyle benefits of using a dietary pattern-based approach to counseling. These benefits include implementation of the Dietary Guidelines to lower the risk of chronic disease and to promote wellness, and increased acceptability among diverse population groups through the use of a variety of commonly available foods.

Nutrients, Foods, Dietary Patterns, Lifestyle—Fundamental Interrelationships for Health

Epidemiology supports the relationship between dietary patterns and other lifestyle practices in maintaining health and preventing disease. However, studies to identify individual nutrients in this relationship are often inconclusive. Hence, a basic premise of the Dietary Guidelines for Americans 2005 (located at www.healthierus.gov/dietaryguidelines) is that nutrient needs be met primarily through foods as part of dietary patterns such as USDA’s food guidance system, “MyPyramid,” and the DASH diet (see sidebar) that also help lower the risk of chronic diseases including cardiovascular disease, type 2 diabetes, osteoporosis and certain cancers.

MyPyramid and the DASH diet provide templates for population-based nutrition guidance, yet can accommodate individualized food preferences due to the variety of foods in the recommended patterns’ food groups. Although nutrition guidance has evolved to be lifestyle-relevant, at the same time nutrient-based health advice is still prevalent—and popular—due to its simplicity.

Examples include:

- foods ranked on the glycemic index, total antioxidant capacity or “debit” or “credit” score according to nutrient profile
- “traffic light” or other graphics on package labeling
- policies, nutrient standards or legislation targeting sales of individual foods.

The intent of these efforts may be to guide consumers’ food choices, but a focus on any specific nutrient or food ignores the fundamental relationship between a food’s use by an individual in the context of a healthy dietary pattern and lifestyle.

DASH—An Eating Plan for Improved Health

The DASH (Dietary Approaches to Stop Hypertension) and DASH-Sodium trials were controlled-feeding trials undertaken to discover the effect of dietary patterns on blood pressure reduction. The DASH study compared three eating plans: a “control” diet similar to what many Americans currently eat (low in potassium, magnesium and calcium, and the macronutrient profile and fiber content corresponding to average consumption); a “fruit and vegetable” diet higher in fiber, potassium and magnesium than the control diet; and a “combination” diet now known as the DASH diet, rich in fruits and vegetables, low-fat dairy foods and reduced in total and saturated fat and cholesterol.

continued on page 2
Overall, the DASH diet significantly lowered mean systolic blood pressure by 5.5 mmHg and diastolic blood pressure by 3.0 mmHg compared to the control diet—similar in magnitude to some pharmacological therapies. The fruit and vegetable diet lowered blood pressure by about half this magnitude. Studies using the DASH diet and analyses of subsets of the DASH trials have further demonstrated beneficial effects of the DASH diet on lipid profile and features of the metabolic syndrome.

**DASH Supports Health and Well-Being**

The DASH diet is nutrient-dense, providing several shortfall nutrients identified by the Dietary Guidelines Advisory Committee (calcium, magnesium, potassium) and providing the foundation for improved health and well-being.

In summary, results from DASH support the benefits of scientifically sound food selection patterns, not only on chronic disease reduction but on improved health.

**DASH Diet and USDA's MyPyramid Food Guidance System**

Sample of USDA’s food guidance system and the DASH diet at the 2,000-calorie level. NOTE: Table updated to reflect 2006 DASH diet. All servings are per day unless otherwise noted.

<table>
<thead>
<tr>
<th>Food Groups and Subgroups</th>
<th>USDA Food Guidance System Amount</th>
<th>DASH Diet Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruit Group</td>
<td>2 cups (4 servings)</td>
<td>2 to 2.5 cups (4 to 5 servings)</td>
</tr>
<tr>
<td>Vegetable Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Dark green vegetables</td>
<td>2.5 cups (5 servings)</td>
<td>2 to 2.5 cups (4 to 5 servings)</td>
</tr>
<tr>
<td>• Orange vegetables</td>
<td>3 cups/week</td>
<td></td>
</tr>
<tr>
<td>• Legumes (dry beans)</td>
<td>2 cups/week</td>
<td></td>
</tr>
<tr>
<td>• Starchy vegetables</td>
<td>3 cups/week</td>
<td></td>
</tr>
<tr>
<td>• Other vegetables</td>
<td>6.5 cups/week</td>
<td></td>
</tr>
<tr>
<td>Grain Group</td>
<td>6 ounce-equivalents</td>
<td>6 to 8 ounce-equivalents (6 to 8 servings)</td>
</tr>
<tr>
<td>• Whole grains</td>
<td>3 ounce-equivalents</td>
<td></td>
</tr>
<tr>
<td>• Other grains</td>
<td>3 ounce-equivalents</td>
<td></td>
</tr>
<tr>
<td>Meat and Beans Group</td>
<td>5.5 ounce-equivalents</td>
<td>6 ounces or less; meats, poultry, fish</td>
</tr>
<tr>
<td>Milk Group</td>
<td>3 cups</td>
<td>2 to 3 cups</td>
</tr>
<tr>
<td>Oils</td>
<td>27 grams (6 teaspoons)</td>
<td>8 to 12 grams (2 to 3 teaspoons)</td>
</tr>
<tr>
<td>Discretionary Calories</td>
<td>267 grams</td>
<td>~2 tsp of added sugar (5 tbsp/week)</td>
</tr>
<tr>
<td>• Example of distribution:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid fat</td>
<td>18 grams</td>
<td></td>
</tr>
<tr>
<td>Added sugars</td>
<td>8 teaspoons</td>
<td></td>
</tr>
</tbody>
</table>


**PRACTICE POINTS FOR THE HEALTH PROFESSIONAL**

- Rather than a clinical diet for lowering blood pressure and reducing risk of chronic disease, consider the DASH diet—a dietary pattern-based template—for all healthy individuals to implement the Dietary Guidelines and meet their nutrient recommendations.
- The trend toward individualized diets can make meal planning challenging. The DASH diet can serve as the household foundation, with each member adjusting the pattern according to personal preference.
- Clients with blood pressure in the pre-hypertensive range—systolic pressure 120-139 and diastolic 80-89 mmHg—can use the DASH diet to bring their blood pressure back into the “normal” range, thereby avoiding or postponing the need for drug therapies.
- For clients who think eating well takes too long to see results, DASH is an example of a dietary approach to wellness that brings relatively quick results. In clinical trials, benefits were seen within two weeks of starting the diet.
- Some examples to increase the intake of low-fat dairy foods consistent with the DASH diet until the three-a-day goal is met include:
  - Top any fruit with ¼ cup low-fat yogurt for a quick, satisfying treat.
  - Substitute milk for water in soups and sauces.
  - Add ½ cup shredded low-fat cheese to a green salad or sprinkle over vegetables.
  - Wrap string cheese with favorite grilled vegetables.
- Consumer research indicates that the favorite diet in America is one that is called “my own.” Take advantage of consumers’ interest in such individualization and discuss the DASH diet or MyPyramid in terms of food-choice flexibility.
Q. What are some advantages of using a food-pattern approach to help consumers meet nutrition guidance recommendations?

A. Food-based dietary recommendations help consumers select foods that help lower their risk of many chronic diseases without having to convert individual nutrient requirements into food choices. Using food patterns facilitates implementation of the Dietary Guidelines because different foods can be chosen within each food group. Consumers have great flexibility to meet their nutrient needs, within an appropriate calorie range and based on their taste preferences, lifestyle, cultural practices and finances.

There is interest in investigating the health benefits that dietary patterns confer beyond reduction of chronic disease risk. As health professionals, we have the opportunity to better communicate to consumers that they can improve their health through food choices. Since chronic diseases are appearing earlier in life, consumers may be receptive to a realistic food-based approach to improved well-being.

Q. What suggestions do you have for health professionals to help consumers adopt the DASH diet or MyPyramid as the basis for their food choices?

A. The challenge is to help consumers get to the recommended pattern from where they are. The DASH diet differs from what consumers typically eat—about twice the number of servings of fruits, vegetables and low-fat dairy products. Consumers raise their eyebrows when I talk about nine servings of fruits and vegetables. To get them there, we need to break down the target goal into increments so consumers say, “I can do that.” For example, while the recommended intake may be three daily servings of low-fat milk/milk products, the message for someone consuming less than one serving may be how to add the equivalent of ½ serving daily until the goal is met.

Q. Are attempts to identify good and better food choices by visual graphics (e.g., “traffic light” labeling or nutrient rating systems) counter to a food-pattern approach to balanced food choices?

A. Consumers should understand that food-specific identifiers target foods that can be incorporated into a total dietary pattern, and are not intended to label foods as “good” or “bad.” A food-pattern approach to healthy eating considers more than a food’s nutrient profile—it also considers portion size and frequency of use.

Health professionals must provide this perspective and ensure clients that all foods, in moderation, can fit in a healthy diet. The focus should not be on specific foods or even specific meals; rather it is diet quality over time that counts. Thus, it is true that there are not good foods or bad foods, but foods that can be part of a recommended dietary pattern.

Q. What are some barriers or emerging issues around using a dietary-pattern approach to nutrition guidance?

A. When you consider nutrient needs in the context of our relatively sedentary lifestyles, there is not a lot of room for extras. We must craft messages that address calories. Both the DASH diet and MyPyramid offer patterns at different calorie levels. Rather than identify specific foods consumers should avoid, approach this topic in a positive manner from the standpoint of discretionary calories. Give consumers examples of how they can use these calories on a daily basis—whether for ‘extras’ such as dessert or for larger portions of nutrient-dense foods from the food groups.

Another issue is individualized nutrition—consumers are looking to meet their individual needs, yet at the same time the members of their family may have different needs. The logistics of meeting everyone’s health needs and goals are daunting and can make mealtime challenging. The DASH diet can serve as the household foundation, with each member adjusting the pattern according to personal preference.

With respect to the future, nutrient requirements will keep evolving. How can food-based dietary patterns meet these needs in a sedentary population? What will be the role of food fortification and supplements? In future editions of the Dietary Guidelines, I think we will need to consider these issues and others, including requirements for bioactive food components.

REFERENCES
The joy of eating

By Ellyn Satter, MS, RD, LCSW, BCD

Eating is okay. Eating enough is okay. Eating what you like is okay. To be consistent and effective in feeding yourself and your family, build on enjoyment. Optimism, pleasure, and self-trust are good motivators. Pessimism, avoidance, and self-doubt are poor motivators (1).

Today, eating is the enemy: don’t eat so much, and don’t eat the foods you like or you will get fat and then you will die. Only 40% of people admit they enjoy eating, down from 50% 20 years ago (2). Eating “enjoyably” comes loaded with guilt and fear; eating “properly” comes loaded with dreaminess and control (3,4). Often we veer between the two like the Parade magazine survey respondents who say they eat a healthy mix of foods, then reward themselves with “pleasure foods” (5). Many resolve this discord by rejecting nutrition information (3,6).

We have trouble feeding ourselves and trouble feeding our children. The division of responsibility is the gold standard of feeding. Parents do the what, when, and where of feeding, and children do the how much and whether of eating. However, almost all parents of preschoolers limit menus to foods their children readily accept, then bribe and pressure them to eat (7). Despite the national hysteria about child overweight, over 90% of parents don’t believe their children when they say they are full and encourage them to eat more (7,8). Pressure doesn’t work: pressured children eat less well and behave badly at mealtime (9).

Teenagers are the canaries in the mine. In 12-year-olds, over half of girls and a quarter of boys diet, and dieters get fatter, not thinner (10). Dieting increases throughout adolescence and as teenagers move into young adulthood, with particularly sharp increases in extreme weight control measures such as vomiting and taking diet pills, laxatives and diuretics (11). It is little wonder that adolescents diet. Children are raised to ignore their sensations of hunger, appetite, and satiety. As they get older and take on grown-up ways, they see their parents dieting (up to three-quarters of adults regularly diet to lose weight) (12) and assume that is what grown-up eating is all about.

It doesn’t have to be this way. Consider The Satter Eating Competence Model (ecSatter), a clinically proven and evidence-based way of feeling, thinking, and behaving with eating. I created and refined ecSatter in over 30 years’ working with patients who had distorted eating attitudes and behaviors similar to the ones I described above (13) and it has been extensively tested (14-18). The fundamental principle of ecSatter is to trust rather than trying to hold back on your natural tendencies to provide yourself with ample and enjoyable food. To be competent with eating, emphasize permission and discipline:

- The permission to choose enjoyable food and eat it in satisfying amounts.
- The discipline to have regular and reliable meals and snacks and to pay attention while you eat (13).

You may worry that such permission will send your eating out of control. Not so. Being able to eat foods you like in satisfying amounts gives order and stability to eating. Foods that are no longer forbidden become ordinary foods that you can eat in ordinary ways. Disproportionately large portion sizes lose their appeal when you can look forward to getting enough to eat at regular meals and snacks. “Healthy” foods become enjoyable when you can eat them for pleasure rather than for obligation.

Will such giddy self-indulgence scuttle your attempts to be healthy? Entirely the opposite. Eating competent people do better nutritionally, have healthier body weights (17,18), higher HDLs, and lower blood pressures (16,18). Remarkably, they are also healthier emotionally and socially. People with high eating competence feel more effective, are more self-aware and are more trusting and comfortable with themselves and with other people (17). That is not surprising. In raising children to be competent eaters, we raise them to be competent people. Eating competence relies on being trusting and comfortable with inner experience: the sensations of hunger, appetite and satiety.

It is time to unpack your bags from your guilt trip about eating. Instead, take an enjoyable and permanent vacation from shoulds and oughts by becoming Eating Competent.

Ellyn Satter is an internationally recognized authority on eating and feeding. Practical, warm and empowering, Satter integrates her 40 years of experience in helping adults be more positive, organized and nurturing in caring for themselves and their children. She founded Ellyn Satter Associates, which provides resources for professionals and the public in the area of eating and feeding. The business offers professional training, publishes training materials, teaching resources and books for parents and professionals, and generates magazine and journal articles. For more see www.ellynsatter.com.
REFERENCES
Examination for Motivational Interviewing (INT12)

1. Why should the value of a food be determined within the context of the total diet?
   a. actually it should not be determined within the context of the total diet
   b. classifying foods as ‘good’ or ‘bad’ may foster unhealthful eating behaviors
   c. a motivated individual should be able to memorize their nutrient needs and determine if they’ve been met based on all the foods they eat in a day
   d. to make sure someone eats only food group foods
   e. all of the above

2. “Healthy” foods become enjoyable when you eat them:
   a. in controlled quantities
   b. according to a strict plan
   c. for pleasure rather than for prescription
   d. a and b only
   e. a and c only

3. Effective nutrition education counseling should:
   a. Help individuals adopt behavior patterns that are sustainable over time
   b. Encourage a balanced, individualized nutrition plan that includes a variety of foods from all food groups
   c. Discourage extreme dietary restrictions that can lead to unintended consequences
   d. Dispel “good” and “bad” food messages
   e. All of the above

4. Unintended consequences are defined as:
   a. Any intervention in a complex system that may or may not have the intended result
   b. Negative results of an intervention that were unexpected
   c. Simple nutrition messages that can do no harm
   d. Only a and b
   e. Only b and c

5. Motivational interviewing focuses on:
   a. Directive counseling
   b. Client guided counseling
   c. Exploring and resolving ambivalence
   d. Only b and c
   e. All of the above

6. Which of the following questions can elicit and support “change” talk or more detailed, relevant information from clients?
   a. Do you eat foods from all five food groups?
   b. Tell me about your favorite foods.
   c. Why are you eating so many foods high in sugar?
   d. Are you ready to change your eating habits today?
   e. All of the above
7. It is the position of the Academy of Nutrition and Dietetics that the total diet approach, inclusive of all five food groups, is more likely to insure:
   a. eating appropriate serving sizes
   b. eating energy dense foods
   c. eating an overall pattern of healthy foods
   d. eating fewer processed foods
   e. All of the above

8. Unintended consequences of using FOP (front of package) food labels as the primary source of information in making food choices include which of the following:
   a. Consumers may revert to a philosophy of “good” and “bad” foods
   b. Consumers may emphasize intake of certain nutrients to the detriment of others
   c. Consumers will end up spending more of their food dollars on packaged foods
   d. Consumers will switch to organic foods
   e. Both A and B

9. The singular message to “eat more fruits and vegetables” is most likely to lead to the unintended consequence of which of the following:
   a. Pesticide toxicity
   b. Overconsumption of fiber
   c. Overconsumption of vitamins A and C
   d. Overlooking the need to consume adequate amounts of other food groups such as low-fat dairy and whole grains
   e. All of the above

For questions 10 through 13, match the popular diet with the food group(s) that it commonly limits or omits:

10. Vegan       a. grains, milk and fruit
11. Gluten-free b. meat and milk
12. Low-carbohydrate c. grains
13. High-protein d. grains, fruits and vegetables

14. Before recommending a dietary change the health professional should:
   a. Examine the overall impact it will have
   b. Take into account the long-term health consequences
   c. Consider if nutrition deficiencies could be a result
   d. Only b and c
   e. Only a, b and c

15. The DASH diet is an example of a dietary pattern that:
   a. Meets nutrient needs primarily through foods
   b. Does not meet nutrient needs through foods
   c. Provides simplistic dietary recommendations
   d. Emphasizes “good” foods and “bad” foods
   e. All of the above
16. Which situation diminishes the likelihood of a healthful diet?
   a. Eating a variety and balance of foods
   b. Eating foods from the rainbow of colors and in small amounts
   c. Consistent excess of food and/or absence of a type of food over time
   d. Eating breakfast and being physically active
   e. All of the above

17. In order to help clients adopt a total dietary approach that is sustainable and fits individual preferences, evidence supports what kind of dietary planning?
   a. Identifying the waste after production of the food
   b. Implementing behavior-oriented food and nutrition programs
   c. Incorporating different cultural foods weekly
   d. Eating fresh fruits and vegetables at every meal
   e. Adding whole grains to every meal

18. What is the main reason a counselor’s messages must be consistent, emphasize a total dietary pattern, and guard against inadvertent oversimplified messages:
   a. Counselors may not be effective in achieving educational goals
   b. Counselors may not see the patient for follow-up and continuity
   c. Counselors may not be able to receive reimbursement for their consultation
   d. Counselors may not get additional referrals
   e. Only a and c

19. In defining “healthy eating” to clients and the public, the counselor can:
   a. Refer them to websites for further information
   b. Set up group meetings to dispel inaccurate information
   c. Discuss food costs
   d. Advise them to eliminate foods high in fat and sugar until they reach their dietary goal
   e. Emphasize that the human body requires a wide variety of macro- and micronutrients found in the five food groups

20. What is generally the most important factor influencing food choice?
   a. Taste
   b. Cost
   c. Availability
   d. Convenience
   e. Healthfulness