

The new food pyramid



The New United States Department of Agriculture (USDA) Food Pyramid has been published after 13 years. Moderation, exercise and individuality are currently being emphasized as means to stay fit. The intention is that stressing the importance of exercise and moderate eating will help reduce America's obesity epidemic, now affecting more than one-third of adults and nearly one-fifth of teens (1). While this is the USA governmental agency document, it might be generalizable to other nations also facing the obesity epidemic and the morbidity and mortality associated with it. This article will review the Food Pyramid use, and take a closer look at the guidelines presented.

The new food pyramid is more specific and more reflective of what the guidelines truly articulate. These details include brightly coloured vertical stripes, each representing one of six food groups: grains (orange, and the widest stripe), vegetables (green), fruits (red), oils (yellow, and the thinnest stripe), milk – including most foods made from milk (blue), and meat and beans (purple). The stripes are also constructed to be wider at the bottom and narrower at the top to emphasize that not all foods within that group are of the same value. This is to increase the awareness of the food groups as well as choices within those groups.

Messages

One new message that the new pyramid is underscoring is that good food choices alone do not reflect the total picture of a healthy diet. The new pyramid, complete with a figure running up the side over a set of steps, indicates that healthy eating and exercise are now shared goals. The purpose is for each

of us to take 10 000 steps a day, which can be accomplished by walking rather than taking public transportation or driving, taking the stairs for a few flights, and parking farther from your destination. Routine chores such as housework, washing windows, vacuuming or gardening are actions that can be incorporated as exercise in daily life. A pedometer can be used to help track the number of steps taken each day.

Another major message is that no single eating plan is appropriate for all people. There are now 12 different pyramids, such as one for men, women and children of varying weights and ages (2,3). The USDA has basically created 12 separate pyramids to cater to people of different ages and activity levels. One must create a 'New User Registration Profile', then type in age, sex and activity levels, and MyPyramid Tracker will provide you with an eating plan that will keep you healthy and allow you to maintain your weight. This information is used to provide accurate results about your diet and physical activity status. If you would prefer to enter your height in cm or weight in kg, you may use the links labelled 'cm' and 'kg' to the right of their respective fields. Once you have entered all the information, click 'Save Today's Changes'. The information you enter will automatically be recalled the next time you visit this site using your User ID and MyPyramid Tracker password. To assist individuals to navigate the pyramids, the web site has a program, found at <http://www.mypyramidtracker.gov> (4).

Using the guide

The guide can be subdivided into: My Pyramid Plan, Inside the Pyramid, Tips and Resources, Dietary Guidelines, For Professionals, Related Links and MyPyramid Tracker. 'MyPyramid Plan' helps consumers find the kinds and amounts of foods they should eat daily at <http://www.mypyramid.gov>. 'Inside the Pyramid' points consumers to the in depth information about each food group, discretionary calories and physical activity on the website. Additional information can be found at 'Tips and Resources' and 'For Professionals', such as a 7-day menu plan at 2000 calories and tips for eating in restaurants. 'MyPyramid Tracker' is an online dietary and physical activity assessment tool that provides information on diet quality, physical activity status, related nutrition messages, and links to nutrient and

physical activity information. The 'Food Calories/Energy Balance' feature automatically calculates energy balance by subtracting the energy you expend from physical activity from your food calories/energy intake. The tool should be used to enhance understanding of energy balance status and the link between good nutrition and regular physical activity. MyPyramid Tracker translates the principles of the 2005 Dietary Guidelines for Americans and other nutrition standards developed by the US Departments of Agriculture and Health and Human Services into usable tools (4).

MyPyramid's goals are to deliver basic messages to consumers about healthy eating and physical activity, which apply to everyone. These can be found on the miniposter and the website. They mirror the messages from the 2005 Dietary Guidelines for Americans consumer brochure. For example: (i) eat at least 3 ounces of whole-grain cereals, rice or pasta every day; (ii) go low fat or fat-free when you choose milk, yogurt and other milk products and (iii) choose food and beverages low in added sugars.

The plan helps consumers to find the types and amounts of foods they should eat each day at <http://www.MyPyramid.gov>. As mentioned, when one enters their age, sex and activity level an individualized plan is displayed at an appropriate calorie level. The food plan includes specific daily amounts from each food group and a limit for discretionary calories (fats, added sugars, alcohol). Their food plan is one of the 12-calorie levels of the food intake patterns from the Dietary Guidelines. This can be printed as a personalized miniposter, and a worksheet to help track progress.

The 2005 Dietary Guidelines for Americans

The 2005 Dietary Guidelines for Americans are the basis for Federal nutrition policy (5). The MyPyramid Food Guidance System translates the Guidelines into a total diet that meets nutrient needs from food sources and aims to moderate or limit dietary components often consumed in excess. An important complementary tool is the Nutrition Facts label on food products. The MyPyramid Education Framework provides specific recommendations for making food choices that will improve the quality of an average American diet. These recommendations are interrelated and should be used together. Taken together, they would result in the following changes from a typical diet: increased intake of vitamins, minerals, dietary fibre, and other essential nutrients, especially of those that are often low in typical diets; lowered intake of saturated fats, *trans* fats, and cholesterol and increased intake of fruits, vegetables, and whole grains to decrease risk for some



Dietary Guidelines
for Americans
2005

chronic diseases; calorie intake balanced with energy needs to prevent weight gain and/or promote a healthy weight. The four predominant themes are variety, proportionality, moderation and activity. These concepts are universal in nature and can be used around the globe.

The Framework's recommendations are presented as key concepts for educators. As health care educators, dental hygienists are responsible for guiding patients in attaining and maintaining wellness. We can use this Education Framework to guide our nutrition counselling. The key concepts are organized by topics: calories; physical activity; grains; vegetables; fruits; milk, yogurt, and cheese; meat, poultry, fish, dry beans, eggs and nuts; fats and oils; sugars and sweets; salt; alcohol; and food safety. Under each topic, information is presented on: what actions should be taken for a healthy diet, how these actions can be implemented and why this action is important for health (the key benefits). These key concepts are not intended as direct consumer messages, but more accurately as a framework of ideas from which professionals, like dental hygienists, can develop consumer messages and materials.

Some of the key concepts are: balance calorie intake from foods and beverages with calories expended; participation in regular physical activity and a reduction in sedentary activities; eat recommended amounts of vegetables, and choose a variety of vegetables each day; eat recommended amounts of fruit, and choose a variety of fruits each day; consume three cups of fat-free or low fat (1%) milk, or an equivalent amount of yogurt or cheese, per day; make choices that are low fat or lean

when selecting meats and poultry; choose most fats from sources of monounsaturated and polyunsaturated fatty acids, such as fish, nuts, seeds and vegetable oils; choose and prepare foods and beverages with little added sugars or caloric sweeteners; and choose and prepare foods with little salt. Other concepts involve use of alcoholic beverages and food safety.

One issue addressed in 2004 Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) 'Advice For Women Who Might Become Pregnant Women Who are Pregnant Nursing Mothers Young Children': 'What You Need to Know About Mercury in Fish and Shellfish'. While for most people, the risk from mercury by eating fish and shellfish is not a health concern, it may be for those in various situations. Some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. In addition, anyone with a compromised immune system (diabetes, AIDS, etc.) should use caution when eating shark, swordfish, king mackerel, albacore, or tilefish as they contain high levels of mercury (6).

Food Intake Patterns are the suggested amounts of food one should consume from the basic food groups, subgroups, and oils to meet recommended nutrient intakes at 12 different calorie levels. Nutrient and energy contributions from each group are calculated according to the nutrient-dense forms of foods in each group (e.g. lean meats and fat-free milk). The table also shows the discretionary calorie allowance that can be accommodated within each calorie level, in addition to the suggested amounts of nutrient-dense forms of foods in each group. 'Estimated Daily Calorie Needs' help to determine the food intake pattern for an individual, with a chart that shows an estimate of individual calorie needs. The calorie range for each age/sex group is based on physical activity level, from sedentary to active. A glossary is attached, as well.

With systems such as the New Food Pyramid, dental hygienists and other health-care professionals now have a wider variety of tools to share with our patients. As oral health is part of total health, nutritional well-being plays a fundamental role in health and human development (7). Blood vessels may respond positively to changes in diet and exercise in those at risk for heart disease as soon as 8 weeks after starting the regimen, according to a study presented at an American Heart Association scientific conference on 29 April 2005 (8). By sharing this information, dental hygienists can truly save lives!

References

- 1 The New Food Pyramid. <http://www.mypyramid.gov/mypyramid/index.aspx>.
- 2 Food and Nutrition Information Center. <http://www.nal.usda.gov/fnic/Fpyr/pyramid.html>.
- 3 For Kids. http://kidshealth.org/kid/stay_healthy/food/pyramid.html.
- 4 PyramidTracker. <http://www.mypyramidtracker.gov>.
- 5 Dietary Guidelines. <http://www.healthierus.gov/dietaryguidelines/index.html>.
- 6 'What You Need to Know About Mercury in Fish and Shellfish'. <http://www.cfsan.fda.gov/~dms/admeHg3.html>.
- 7 World Health Organization (WHO). Nutrition <http://www.who.int/nut/>.
- 8 American Heart Association. <http://www.americanheart.org>.

Additional resources

Food Guide Pyramid



Ethnic/Cultural

Asian Diet Pyramid

<http://www.news.cornell.edu/science/Dec95/st.asian.pyramid.html>.

Comparison of International Food Guide Pictorial Representations – PDF format. From: American Dietetic Association

<http://www.eatright.org/images/journal/0402/commentary.pdf>.

Mediterranean Diet Pyramid

http://www.oldwayspt.org/pyramids/med/p_med.html.

Native American Food Pyramid. From: California Adolescent Nutrition and Fitness Program

<http://www.nal.usda.gov/fnic/Fpyr/NAmFGP.html>.

Nutrition Education for New Americans Project. From: Georgia State University

<http://monarch.gsu.edu/multiculturalhealth>.

Spanish Daily Food Guide Flyer ('Guia Diaria de Alimentos'). From: Cooperative Extension/University of Illinois

<http://www.ag.uiuc.edu/~vista/abstracts/aFOODGDSP.html>.

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