

## APPENDIX C. GLOSSARY OF TERMS

**Acceptable Macronutrient Distribution Ranges (AMDR)**—Range of intake for a particular energy source that is associated with reduced risk of chronic disease while providing intakes of essential nutrients. If an individual consumes in excess of the AMDR, there is a potential of increasing the risk of chronic diseases and/or insufficient intakes of essential nutrients.

**Added Sugars**—Sugars and syrups that are added to foods during processing or preparation. Added sugars do not include naturally occurring sugars such as those that occur in milk and fruits.

**Adequate Intakes (AI)**—A recommended average daily nutrient intake level based on observed or experimentally determined approximations or estimates of mean nutrient intake by a group (or groups) of apparently healthy people. The AI is used when the Estimated Average Requirement cannot be determined.

**Basic Food Groups**—In the USDA food intake patterns, the basic food groups are grains; fruits; vegetables; milk, yogurt, and cheese; and meat, poultry, fish, dried peas and beans, eggs, and nuts. In the DASH Eating Plan, nuts, seeds, and dry beans are a separate food group from meat, poultry, fish, and eggs.

**Body Mass Index (BMI)**—BMI is a practical measure for approximating total body fat and is a measure of weight in relation to height. It is calculated as weight in kilograms divided by the square of the height in meters.

**Cardiovascular Disease**—Refers to diseases of the heart and diseases of the blood vessel system (arteries, capillaries, veins) within a person's entire body, such as the brain, legs, and lungs.

**Cholesterol**—A sterol present in all animal tissues. Free cholesterol is a component of cell membranes and serves as a precursor for steroid hormones, including estrogen, testosterone, aldosterone, and bile acids. Humans are able to synthesize sufficient cholesterol to meet biologic requirements, and there is no evidence for a dietary requirement for cholesterol.

- **Dietary cholesterol**—Consumed from foods of animal origin, including meat, fish, poultry, eggs, and dairy products. Plant foods, such as grains, fruits and vegetables, and oils from these sources contain no dietary cholesterol.
- **Serum cholesterol**—Travels in the blood in distinct particles containing both lipids and proteins. Three major classes of lipoproteins are found in the serum of a fasting individual: low-density lipoprotein (LDL), high-density lipoprotein (HDL), and very-low-density lipoprotein (VLDL). Another lipoprotein class, intermediate-density lipoprotein (IDL), resides between VLDL and LDL; in clinical practice, IDL is included in the LDL measurement.

**Chronic Diseases**—such as heart disease, cancer, and diabetes—are the leading causes of death and disability in the United States. These diseases account for 7 of every 10 deaths and affect the quality of life of 90 million Americans. Although chronic diseases are among the most common and costly health problems, they are also among the most preventable. Adopting healthy behaviors such as eating nutritious foods, being physically active, and avoiding tobacco use can prevent or control the devastating effects of these diseases.

**Coronary Heart Disease**—A narrowing of the small blood vessels that supply blood and oxygen to the heart (coronary arteries).

**Daily Food Intake Pattern**—Identifies the types and amounts of foods that are recommended to be eaten each day and that meet specific nutritional goals. (*Federal Register Notice*, vol. 68, no. 176, p. 53536, Thursday, September 11, 2003)

**Danger Zone**—The temperature that allows bacteria to multiply rapidly and produce toxins, between 40°F and 140°F. To keep food out of this danger zone, keep cold food cold and hot food hot. Keep food cold in the refrigerator, in coolers, or on ice in the service line. Keep hot food in the oven, in heated chafing dishes, or in preheated steam tables, warming trays, and/or slow cookers. Never leave perishable foods, such as meat, poultry, eggs, and casseroles, in the danger zone longer than 2 hours or longer than 1 hour in temperatures above 90°F.

**Dietary Fiber**—Nonstarch polysaccharides and lignin that are not digested by enzymes in the small intestine. Dietary fiber typically refers to nondigestible carbohydrates from plant foods.

**Dietary Reference Intakes (DRIs)**—A set of nutrient-based reference values that expand upon and replace the former Recommended Dietary Allowances (RDAs) in the United States and the Recommended Nutrient Intakes (RNIs) in Canada. They are actually a set of four reference values: Estimated Average Requirements (EARs), RDAs, AIs, and Tolerable Upper Intake Levels (ULs).

**Discretionary Calorie Allowance**—The balance of calories remaining in a person's energy allowance after accounting for the number of calories needed to meet recommended nutrient intakes through consumption of foods in low-fat or no added sugar forms. The discretionary calorie allowance may be used in selecting forms of foods that are not the most nutrient-dense (e.g., whole milk rather than fat-free milk) or may be additions to foods (e.g., salad dressing, sugar, butter).

**Energy Allowance**—A person's energy allowance is the calorie intake at which weight maintenance occurs.

**Estimated Average Requirements**—EAR is the average daily nutrient intake level estimated to meet the requirement of half the healthy individuals in a particular life stage and gender group.

**Estimated Energy Requirement**—The EER represents the average dietary energy intake that will maintain energy balance in a healthy person of a given gender, age, weight, height, and physical activity level.

**FDAMA**—The Food and Drug Administration Modernization Act, enacted Nov. 21, 1997, amended the Federal Food, Drug, and Cosmetic Act relating to the regulation of food, drugs, devices, and biological products. With the passage of FDAMA, Congress enhanced FDA's mission in ways that recognized the Agency would be operating in a 21st century characterized by increasing technological, trade, and public health complexities.

**FightBAC!**—A national public education campaign to promote food safety to consumers and educate them on how to handle and prepare food safely. In this campaign, pathogens are represented by a cartoon-like bacteria character named "BAC."

**Foodborne Disease**—Caused by consuming contaminated foods or beverages. Many different disease-causing microbes, or pathogens, can contaminate foods, so there are many different foodborne infections. In addition, poisonous chemicals, or other harmful substances, can cause foodborne diseases if they are present in food. The most commonly recognized foodborne infections are those caused by the bacteria *Campylobacter*, *Salmonella*, and *E. coli* O157:H7, and by a group of viruses called calcivirus, also known as the Norwalk and Norwalk-like viruses.

**Heme Iron**—One of two forms of iron occurring in foods. Heme iron is bound within the iron-carrying proteins (hemoglobin and myoglobin) found in meat, poultry, and fish. While it contributes a smaller portion of iron to typical American diets than non-heme iron, a larger proportion of heme iron is absorbed.

**High Fructose Corn Syrup (HFCS)**—A corn sweetener derived from the wet milling of corn. Cornstarch is converted to a syrup that is nearly all dextrose. HFCS is found in numerous foods and beverages on the grocery store shelves.

**Hydrogenation**—A chemical reaction that adds hydrogen atoms to an unsaturated fat, thus saturating it and making it solid at room temperature.

**Leisure-Time Physical Activity**—Physical activity that is performed during exercise, recreation, or any additional time other than that associated with one's regular job duties, occupation, or transportation.

**Listeriosis**—A serious infection caused by eating food contaminated with the bacterium *Listeria monocytogenes*, which has recently been recognized as an important public health problem in the United States. The disease affects primarily pregnant women, their fetuses, newborns, and adults with weakened immune systems. Listeria is killed by pasteurization and cooking; however, in certain ready-to-eat foods, such as hot dogs and deli meats, contamination may occur after cooking/manufacture but before packaging. *Listeria monocytogenes* can survive at refrigerated temperatures.

**Macronutrient**—The dietary macronutrient groups are carbohydrates, proteins, and fats.

**Micronutrient**—Vitamins and minerals that are required in the human diet in very small amounts.

**Moderate Physical Activity**—Any activity that burns 3.5 to 7 kcal/min or the equivalent of 3 to 6 metabolic equivalents (METs) and results in achieving 60 to 73 percent of peak heart rate. An estimate of a person's peak heart rate can be obtained by subtracting the person's age from 220. Examples of moderate physical activity include walking briskly, mowing the lawn, dancing, swimming, or bicycling on level terrain. A person should feel some exertion but should be able to carry on a conversation comfortably during the activity.

**Monounsaturated Fatty Acids**—Monounsaturated fatty acids (MUFAs) have one double bond. Plant sources that are rich in MUFAs include vegetable oils (e.g., canola oil, olive oil, high oleic safflower and sunflower oils) that are liquid at room temperature and nuts.

**Nutrient-Dense Foods**—Nutrient-dense foods are those that provide substantial amounts of vitamins and minerals and relatively fewer calories.

**Ounce-Equivalent**—In the grains food group, the amount of a food counted as equal to a one-ounce slice of bread; in the meat, poultry, fish, dry beans, eggs, and nuts food group, the amount of food counted as equal to one ounce of cooked meat, poultry, or fish. Examples are listed in table 1 and appendix A-1.

**n-6 PUFAs**—Linoleic acid, one of the n-6 fatty acids, is required but cannot be synthesized by humans and, therefore, is considered essential in the diet. Primary sources are liquid vegetable oils, including soybean oil, corn oil, and safflower oil.

**n-3 PUFAs**— $\alpha$ -linolenic acid is an n-3 fatty acid that is required because it is not synthesized by humans and, therefore, is considered essential in the diet. It is obtained from plant sources, including soybean oil, canola oil, walnuts, and flaxseed. Eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are long chain n-3 fatty acids that are contained in fish and shellfish.

**Pathogen**—Any microorganism that can cause or is capable of causing disease.

**Polyunsaturated Fatty Acids**—Polyunsaturated fatty acids (PUFAs) have two or more double bonds and may be of two types, based on the position of the first double bond.

**Portion Size**—The amount of a food consumed in one eating occasion.

**Recommended Dietary Allowance (RDA)**—The dietary intake level that is sufficient to meet the nutrient requirement of nearly all (97 to 98 percent) healthy individuals in a particular life stage and gender group.

**Resistance Exercise**—Anaerobic training, including weight training, weight machine use, and resistance band workouts. Resistance training will increase strength, muscular endurance, and muscle size, while running and jogging will not.

**Saturated Fatty Acids**—Saturated fatty acids have no double bonds. They primarily come from animal products such as meat and dairy products. In general, animal fats are solid at room temperature.

**Sedentary Behaviors**—In scientific literature, sedentary is often defined in terms of little or no physical activity during leisure time. A sedentary lifestyle is a lifestyle characterized by little or no physical activity.

**Serving Size**—A standardized amount of a food, such as a cup or an ounce, used in providing dietary guidance or in making comparisons among similar foods.

**Tolerable Upper Intake Level (UL)**—The highest average daily nutrient intake level likely to pose no risk of adverse health effects for nearly all individuals in a particular life stage and gender group. As intake increases above the UL, the potential risk of adverse health effects increases.

**Trans fatty acids**—*Trans* fatty acids, or *trans* fats, are unsaturated fatty acids that contain at least one non-conjugated double bond in the *trans* configuration. Sources of *trans* fatty acids include hydrogenated/partially hydrogenated vegetable oils that are used to make shortening and commercially prepared baked goods, snack foods, fried foods, and margarine. *Trans* fatty acids also are present in foods that come from ruminant animals (e.g., cattle and sheep). Such foods include dairy products, beef, and lamb.

**Vegetarian**—There are several categories of vegetarians, all of whom avoid meat and/or animal products. The vegan or total vegetarian diet includes only foods from plants: fruits, vegetables, legumes (dried beans and peas), grains, seeds, and nuts. The lactovegetarian diet includes plant foods plus cheese and other dairy products. The ovo-lactovegetarian (or lacto-ovo-vegetarian) diet also includes eggs. Semi-vegetarians do not eat red meat but include chicken and fish with plant foods, dairy products, and eggs.

**Vigorous Physical Activity**—Any activity that burns more than 7 kcal/min or the equivalent of 6 or more metabolic equivalents (METs) and results in achieving 74 to 88 percent of peak heart rate. An estimate of a person's peak heart rate can be obtained by subtracting the person's age from 220. Examples of vigorous physical activity include jogging, mowing the lawn with a nonmotorized push mower, chopping wood, participating in high-impact aerobic dancing, swimming continuous laps, or bicycling uphill. Vigorous-intensity physical activity may be intense enough to represent a substantial challenge to an individual and results in a significant increase in heart and breathing rate.

**Weight-Bearing Exercise**—Any activity one performs that works bones and muscles against gravity, including walking, running, hiking, dancing, gymnastics, and soccer.

**Whole Grains**—Foods made from the entire grain seed, usually called the kernel, which consists of the bran, germ, and endosperm. If the kernel has been cracked, crushed, or flaked, it must retain nearly the same relative proportions of bran, germ, and endosperm as the original grain in order to be called whole grain.<sup>16</sup>

<sup>16</sup> AACC Press Release, AACC To Create Consumer-Friendly Whole Grain Definition, March 5, 2004. <http://www.aaccnet.org/news/CFWholeGrain.asp>.