GLOSSARY OF TERMS

A

Aerobic Exercise

Exercise requiring the presence of air. Exercise done at a rate that allows the oxygen that you breath to produce the energy needed. Aerobic exercise is the preferred way to burn calories and strengthen your heart and lungs.

Anaerobic Exercise

Not requiring the presence of oxygen. The heart and lungs can't get enough oxygen to the muscles and energy is produced without oxygen.

Antioxidants

Antioxidants are substances that help protect against cell damage from free radicals. Well known antioxidants include vitamin A, vitamin C, and vitamin E.

Appetite Suppressants Foods and drugs intended to curb hunger.

Ascorbic Acid

Another name for Vitamin C.

B

Bariatrics

A branch of medicine dealing with the causes, prevention, and treatment of obesity, both pharmacological and surgical.

Basal Metabolism

The basic essential metabolic processes required to keep the body alive and healthy and, where applicable, growing at a healthy rate.

Binge Eating

An eating behavior is characterized by eating more food than most people would eat in a given amount of time, and feeling that what is being eaten and how much is being eaten is out of the control of the person doing the eating.

Biological Value (BV)

A measure of protein quality based on the percentage of absorbed nitrogen that is retained by the body.

Blood Sugar

Sugar in the form of glucose (the body's primary source of energy) in the blood. Abnormally low or high levels of glucose in the blood often indicate metabolic disturbances (i.e. diabetes).

Body Fat

The percentage of your body mass that is not composed of lean muscle, water, bones or vital organs.

Body Mass Index (BMI)

An estimate of an individual's relative body fat calculated from his or her height and weight.

C

Caliper

An instrument used to measure skinfold thickness for an estimation of body fat.

Calorie

A unit of energy-producing potential equal to the amount of heat that is contained in food and released upon oxidation by the body.

Catabolism

The branch of metabolism that involves the breakdown of compounds in the body, including the reactions that release energy from foods.

Cellulose

A complex carbohydrate composed of glucose units linked together in a form that humans cannot digest.

Cholesterol

A waxy, fat-like substance present in every cell in the body and in many foods. Some cholesterol in the blood is necessary - but a high level can lead to heart disease.

Chromium Polynicotinate

A form of bioavailable chromium is chromium polynicotinate, or niacin-bound chromium. It is also a patented substance, and is sold under the trade name Chrome-Mate. Studies show that chromium polynicotinate in dietary supplements provide benefits that include weight loss, lower serum cholesterol and glucose, fat burning, and increased muscle mass.

Complete Proteins

Proteins that contain all of the nine essential amino acids in proportions capable of promoting growth when they are the only proteins in the diet.

Complex Carbohydrate

Starches, such as grains, breads, rice, pasta, vegetables and beans. They get their name from their complex, chainlike structure. During digestion, starches are typically broken down into sugars and used by the body for energy. Because complex carbohydrates must be broken down, complex carbohydrates offer a more sustained energy level than simple carbohydrates.

Coronary Heart Disease

Heart disease associated with obstruction of the coronary blood vessels that supply blood to the heart.

Cortisol

A steroid hormone secreted by the adrenal glands. Any type of physical or mental stress can increase the production and release of cortisol. This hormone is often called the "stress hormone" due to its increased secretion during stress responses in the body. Cortisol has a strong anti-inflammatory effect, and it increases protein breakdown, increases lipid concentrations in the blood, and increases blood glucose concentration.

D

Daily Value (DV)

A term used by the FDA to describe the amount of a nutrient used as the standard for labeling purposes. DVs are comprised of two sets of standards: Daily Reference Values (DRVs) and Recommended Daily Intakes (RDIs).

Dehydrated

Suffering from excessive loss of water.

Digestion

The breakdown of food materials mechanically (through chewing) and chemically (by digestive enzymes) until it is in a form which its nutrients can be absorbed from the gastrointestinal track into the blood.

Diuretics Substances that cause an increase in the loss of water via the kidneys within the urine.

E

Energy (Electrocardiogram)

The capacity of the body or a physical system for doing work.

Enrichment

The addition of a nutrient to a processed food to replace losses of the nutrient that occurred during processing or to enhance its nutritive composition. Most commonly used in reference to cereal and pasta.

Enzyme

Complex proteins that assist or enable chemical reactions to occur. "Digestive" enzymes, for example, help your body break food down so it can more easily be absorbed. The body produces thousands of different enzymes.

Essential Amino Acids

Amino acids are the building blocks of protein. In order for amino acids to be used as protein the essential amino acids must be present in the gut at the same time. The body cannot make these amino acids, therefore, they must be obtained through the diet.

Essential Fatty Acids

These are the fats the body cannot make and therefore must be part of the diet. Essential fatty acids are also the building blocks of eicosanoids, which are involved in many metabolic processes in the body. There are two groups, omega-3 and omega-6 fatty acids, each gives rise to a different group of eicosanoids.

F

Fats

Nutrients that provide energy to the body. Fat is stored in the body's fat tissues, which provide support, protection, and insulation for the body and its organs. Fat is also necessary for the absorption of certain vitamins.

Free Radical

An atom or group of atoms that has at least one unpaired electron and is therefore unstable and highly reactive. Free radicals can damage body cells. Free Radicals are produced as a normal by product of normal body metabolism. Normally we have systems that keep these "free radicals" in check.

G

Garcinia Cambogia

An herb from a fruit native to India and southeast Asia. Rich in the active ingredient, hydroxycitric acid (HCA), which is closely related to the citric acid found in grapefruits and oranges. Contained in dietary supplements to suppress appetite.

Glucose

The body's chief source of energy, a simple sugar that passes easily from the digestive tract into the bloodstream when you consume carbohydrates.

Glycemic Index

A scale for evaluating carbohydrate based foods, based on the rate at which ingested food affects blood sugar levels.

H

High Density Lipoproteins (HDL)

Lipoprotein particles that transport cholesterol to the liver. Also known as, "good" cholesterol. HDL carry cholesterol in the blood from other parts of the body back to the liver, which leads to its removal from the body. So HDL help keep cholesterol from building up in the walls of the arteries.

Hormones

Chemical messenger substances in the body that are released into the blood from one specific location and that bind to target tissues at other locations and elicit specific responses.

I

Insoluble Fiber

Fiber that, for the most part, does not dissolve in water and is not digested by the body or by bacteria in the gut. It includes cellulose, some hemicelluloses, and lignin.

Insulin

A hormone secreted by special cells in the pancreas in response to increased blood glucose (blood sugar) concentrations.

L

L-carnitine

An amino acid which has been found to improve fat metabolism. Carnitine can be also found in the diet in foods such as meat and dairy products.

Lactose

The main carbohydrate in milk (milk sugar).

Lactose Intolerance

A condition in which one has an inability to digest lactose.

Lipoprotein

A component of the blood that serves to carry cholesterol throughout the body. It is composed of a fat molecule attached to a protein molecule. It appears in various forms, such as LDL and HDL.

Low Density Lipoproteins (LDL)

LDLs transport cholesterol to the cells of the body. Also known as, "bad" cholesterol. LDL carry most of the cholesterol in the blood, and the cholesterol from LDL is the main source of damaging buildup and blockage in the arteries.

M

Macronutrients

A grouping of nutrients into two subclasses, called macronutrients and micronutrients. Macronutrients refer to those nutrients that form the major portion of your consumption and contribute energy to your diet. Macronutrients include carbohydrates, fats, protein, and sometimes water is also considered to be a macronutrient. All other nutrients are consumed in smaller amounts, and are labeled as micronutrients.

Meal Replacement

Specially formulated food products (i.e. powders, bars or shakes) designed to replace a meal, while providing high quality protein, carbohydrates fat and essential vitamins and minerals.

Metabolism

The sum total of all the energy production that goes on in living cells. The chemical processes that take place within a living cell or organism that break down substances to provide energy.

Micronutrient

A vitamin or mineral that the body must obtain from outside sources. Micronutrients are essential to the body in small amounts.

N

Nitrogen

A chemical element part of all proteins.

Nutrients

Substances we obtain from food necessary for growth and maintenance of body tissues. There are six different nutrients needed to provide energy and support the metabolic processes of the body.

O

Oils

Triglycerides that are liquid at room temperature. Oils are often included in the general category of "fat," although technically fats are triglycerides solid at room temperature.

P

Partially Hydrogenated/Hydrogenated

Unsaturated fat that has hydrogen added to make it saturated. Hydrogenation turns liquid vegetable oils into solid fats. Also, hydrogenated vegetable oil may be added to margarine to make it solid at room temperature and easier to spread. Hydrogenation also helps increase product shelf life. On the label, the term "hydrogenated" is listed before a blend of fats and oils. For example: "Hydrogenated vegetable oil (contains the following: soybean, cottonseed, palm oil)."

Phenylketonurics

Phenylketonuria (PKU) is rare genetic disorder in which the body lacks the enzyme necessary to metabolize phenylalanine to tyrosine. The primary treatment is avoidance of phenylalanine and a low protein diet, which is why foods are required to be labeled for the benefit of phenylketonurics who must always be vigilant about their diet.

Protein

A group of macronutrients that are made up of amino acids. Since amino acids provide the basic building blocks of all living cells, protein is essential in the diet. Protein is necessary for the repair, building and maintenance of body tissues.

Pyruvate

A form of pyruvic acid found in dietary supplements combined with various minerals (i.e. sodium, calcium) to improve stability. Pyruvate is a product created in the body during the metabolism of carbohydrates and protein. Used in dietary supplements to aid with weight loss efforts.

R

Resting Metabolism or Resting Energy Expenditure

The rate at which you burn energy or calories at rest. Your Resting Metabolic Rate (RMR) is one the main contributing components of energy expenditure (around 70%).

Risk Factor

A condition such as high cholesterol levels, age, or diabetes that can lead to a greater chance of developing disease.

S

Satiety Index

Satiety means "the state of being full or gratified to or beyond the point of satisfaction." Certain types of foods may provide more satiety than others. The satiety index is a system of rating food according to how much other food was eaten later. The higher the score (satiety index), the more satisfying the food.

Saturated Fat

Saturated fats are usually solid or almost solid at room temperature. All animal fats, such as those in meat, poultry, and dairy products contain saturated fats. Vegetable oils also can be saturated. Palm, palm kernel and coconut oils are saturated vegetable oils. (Fats containing mostly unsaturated fat can be made more saturated through a process called "hydrogenation." See the definition for hydrogenated/partially hydrogenated.")

Saturated fats are unhealthy fats. They make the body produce more cholesterol, which may raise blood cholesterol levels. Excess saturated fats are related to an increased risk of cardiovascular disease.

Simple Carbohydrates

Single molecule sugars such as glucose, fructose, and galactose. So called because their chemical makeup consists of only 1 or 2 sugar molecules. Simple molecules are easily digested and not the most efficient source of energy.

Sugar Alcohol

Ingredients used in low calorie foods. Also called polyols, they are a class of carbohydrates structurally similar to sugars and alcohols, but are more slowly or incompletely absorbed by the human digestive system. Common sugar alcohols include sorbitol, mannitol, maltitol, and xylitol.

T

Tissue

A collection of cells of the same or very similar type.

Thermogenesis

The production of heat in the body. There are three types of thermogenesis: diet-induced, adaptive, and exercise-induced. Diet-induced thermogenesis results from the calories burned during digestion, absorption and metabolism of food. Adaptive thermogenesis results from adjustments in energy expenditure related to environmental changes, such as shivering when cold. Exercise-induced thermogenesis is production of body heat from physical activity.

Trans fatty acids

An unsaturated fatty acid molecule that contains a trans double bond between carbon atoms, which makes the molecule kinked. Research suggests a correlation between diets high in trans fats and diseases like atherosclerosis and coronary heart disease.

Triglycerides

A form of fat carried through the bloodstream. Most of your body's fat is in the form of triglycerides stored in fat tissue.

U

Unsaturated Fats A fat or fatty acid in which there are one or more double bonds between carbon atoms of the fatty acid chain. Such fat molecules are monounsaturated if each contains one double bond, and polyunsaturated if each contain more than one. Both kinds of unsaturated fat can replace saturated fat in the diet to help lower levels of total cholesterol and LDL cholesterol in the blood.

V

Vegan

A strict vegetarian, who eats only foods of plant origin.

W

Waist-To-Hip Ratio (WHR)

The ratio of a person's waist circumference to hip circumference.

Water-soluble fiber

Soluble fibers, such as gum and pectin, dissolve in water. Studies find that water-soluble fibers help reduce cholesterol levels.