

Recommended daily allowance

[Nutrition](#)



A PARTIAL REQUIREMENT IN T. L. E II Recommended Dietary Allowance is a Guide in Determining Nutrients a Day Submitted by: Mariel Mae A. Maculbe Submitted to: Mr. Armando C. Prado August , 2010

I. Introduction Human beings require food to grow, reproduce, and maintain good health. Without food, our bodies could not stay warm, build or repair tissue, or maintain a heartbeat. Eating the right foods can help us avoid certain diseases or recover faster when illness occurs. These and other important functions are fuelled by chemical substances in our food called nutrients. Nutrients are classified as carbohydrates, proteins, fats, vitamins, minerals, and water. Good health or "wellness" is not a matter of chance. Good health is a product of good nutrition which is the result of an adequate supply of essential nutrients in the body. The food we eat everyday supply the essential nutrients to our body. These are carbohydrates, fats, proteins, vitamins, and minerals. A balanced diet consists of a variety of foods of the right kind, in the right amount and proportion . Hence, RDA serves as a guide to the right kind and amount of foods we need for growth and development. Proper nutrition is required to be in good health. Optimum nutrition is only possible if one eats adequate food, practices good eating habits, and develops good relationships with the Supreme Being and other people. Being happy and peace loving contribute to your good health. Optimum nutrition results to good health which makes a person productive. If all members of the family are productive, they will contribute to the development and progress of our country.

II. Statement of the Problem

- â– Is RDA (Recommended Dietary Allowance), evaluate whether your family is eating the right kind and amount of food?
- â– Is RDA (Recommended Dietary Allowance) suggests to correct deficiencies?

III. Body Related Literature

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To determine healthful nutrition standards, the Food and Nutrition Board of the National Academy of Sciences (NAS), a nonprofit, scholarly society that advises the United States government, periodically assembles committees of national experts to update and assess nutrition guidelines. The NAS first published its Recommended Dietary Allowances (RDAs) in 1941. An RDA reflects the amount of a nutrient in the diet that should decrease the risk of chronic disease for most healthy individuals. The NAS originally developed the RDAs to ensure that World War II soldiers stationed around the world received enough of the right kinds of foods to maintain their health. The NAS periodically has updated the RDAs to reflect new knowledge of nutrient needs. In the late 1990s the NAS decided that the RDAs, originally developed to prevent nutrient deficiencies, needed to serve instead as a guide for optimizing health. Consequently, the NAS created Dietary Reference Intakes (DRIs), which incorporate the RDAs and a variety of new dietary guidelines. As part of this change, the NAS replaced some RDAs with another measure, called Adequate Intake (AI). Although the AI recommendations are often the same as those in the original RDA, use of this term reflects that there is not enough scientific evidence to set a standard for the nutrient. Calcium, which has an AI of 1,000 to 1,300 mg per day, is not an RDA because scientists do not yet know how much calcium is needed to prevent osteoporosis.

To simplify the complex standards established by the NAS, the United States Department of Agriculture (USDA) created the Food Guide Pyramid, a visual display of the relative importance to health of six food groups. | | | | Different people have different food needs. Everybody needs food but the age, sex, activity and conditions of the person determine specifically what food he needs most, how much of the nutrients his body requires and when he needs

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food most. Persons are divided in different groups: the infants, the pre-school age, the school age, the adolescents, the pregnant and lactating mothers, and the aged. This groups comprises a FAMILY. RDA evaluates if all the family members is eating the right amount and kind of food according to the belonged group of each member. For example, For adults, the Recommended Dietary Allowance (RDA) for protein is 0.79 g per kg (0.36 g per lb) of body weight each day. For children and infants this RDA is doubled and tripled, respectively, because of their rapid growth. In 2005 the pyramid was updated to accommodate different levels of physical exercise and caloric intake resulting in 12 unique pyramids tailored to fit individual needs. RDA suggests to correct deficiencies according to the pyramid that recommends a range of the number of servings to choose from each group, based on the nutritional needs of males and females and different age groups. With the help of RDA a person will know if something is lacking in his/her diet that leads to deficiencies.

Vitamin A | Food Sources | Health Benefit | Deficiency | Fat Soluble | Green vegetables, milk | Component of light-sensitive pigments in eye, | Night blindness, permanent blindness, | | products, liver | epithelial tissue maintenance | extremely dry skin | | Dairy products, eggs, cod | Calcium absorption, bone formation | Rickets (bone deformities) | | liver oil; ultraviolet | | | light | | | E | Margarine, seeds, green | Protects fatty acids and cell membranes from | Possibly anemia | | leafy vegetables | oxidation | | K | Green leafy vegetables | Blood clotting | Uncontrolled bleeding | | Water Soluble | B1 (Thiamine) | Organ meats, pork, grains, | Carbohydrate metabolism, nerve and heart | Beriberi (weakened heart, edema, nerve and | | legumes | function | muscle degeneration) | | B2 (Riboflavin) | Milk products, liver, eggs, | Energy

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metabolism | Eye irritation, inflammation and breakdown| | | grains, legumes
 | | of skin cells | | B3 (Niacin or | Liver, lean meats, grains, | Oxidation-
 reduction reactions in cellular | Pellegra (skin and gastrointestinal | | Nicotinic
 Acid) | legumes | respiration | disorders, nerve inflammation, mental | | | |
 disorders) | | B5 (Pantothenic | Milk products, liver, eggs,| Energy metabolism
 | Fatigue, loss of coordination | | Acid) | grains, legumes | | | | B6 (Pyridoxine)
 | Whole-grain cereals, | Amino acid metabolism | Convulsions, irritability,
 kidney stones | | | vegetables, meats | | | | B12 (Cobalamin) | Red meats,
 eggs, dairy | Nucleic acid production | Pernicious anemia, neurological
 disorders | | | products | | | | Biotin | Meats, vegetables, legumes | Fat
 synthesis and amino acid metabolism | Depression, fatigue, nausea | | C
 (Ascorbic Acid) | Citrus fruits, green leafy | Collagen formation in teeth, bone,
 and | Scurvy (breakdown of skin, blood vessels, | | | vegetables, tomatoes |
 connective tissue of blood vessels; may help in | and teeth) | | | | resisting
 infection | | | Folic Acid | Whole-wheat foods, green | Nucleic acid metabolism
 | Anemia, diarrhea | | | vegetables, legumes | | | Minerals | Mineral | Food
 Sources | Health Benefit | Deficiency | | Major | | Calcium | Milk, cheese, dried
 legumes, | Bone and teeth formation, blood clotting, | Rickets, osteoporosis,
 convulsions | | | vegetables | and nerve transmission | | | Chlorine | Foods
 containing salt; some vegetables| Fluid regulation between cells or cell |
 Acid-base imbalance in body fluids (very | | | and fruits | layers | rare) | |
 Magnesium | Whole grains; green, leafy vegetables | Enzyme activation,
 protein synthesis | Growth failure, behavior problems, spasms| | Phosphorus |
 Milk, cheese, yogurt, fish, poultry, | Bone and teeth formation, acid-base
 balance | Weakness, loss of calcium | | | meats, grains | maintenance | | |
 Potassium | Bananas, leafy vegetables, potatoes, | Acid-base balance and
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fluid balance | Muscle cramps, mental confusion, loss of | | | cantaloupe, milk, meats | maintenance, nerve transmission | appetite, irregular cardiac rhythm | | Sulfur | Fish, poultry, meats | Acid-base balance maintenance and liver | Disorders unlikely if body gets small | | | function | amounts needed | | Sodium | Table salt | Acid-base balance and body water balance | Muscle cramps, reduced appetite, mental | | | maintenance, nerve function | apathy | | Trace | | Chromium | Legumes, cereals, organ meats, fats, | Glucose metabolism | Adult onset diabetes | | | vegetable oils, meats, whole grains | | | Copper | Meats, drinking water | Red blood cell formation | Anemia, impairs bone and nervous tissue | | | | development | | Fluorine | Drinking water, tea, seafood | Bone structure maintenance, decay-resistant | Osteoporosis; tooth decay | | | | teeth | | | Iodine | Salt-water fish, shellfish, dairy | Component of thyroid hormone | Enlarged thyroid (goiter) | | | products, vegetables, iodized salt | | | Iron | Lean meats, eggs, whole grains, green | Hemoglobin formation in blood; energy | Anemia | | | leafy vegetables, legumes | metabolism | | | Selenium | Seafood, meat, grains | Prevents breakdown of fats and other body | Anemia | | | | chemicals | | | Zinc | Lean meat, whole-grain breads and | Component of many enzymes included in | Growth failure, small sex glands, delayed | | | cereals, dried beans, seafood | digestion, cell repair, sexual reproduction | wound healing |

Tolerable Upper Intake Level (UL) designates the highest recommended intake of a nutrient for good health. If intake exceeds this amount, health problems may develop. Calcium, for instance, has a UL of 2500 mg per day. Scientists know that more than this amount of calcium taken every day can interfere with the absorption of iron, zinc, and magnesium and may result in kidney stones or kidney failure. Estimated Average Requirement (EAR)

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reflects the amount of a particular nutrient that meets the optimal needs of half the individuals in a specified group. For example, the NAS cites an EAR of 45 to 90 grams of protein for men aged 18 to 25. This figure means that half the men in that population need a daily intake of protein that falls within that range. RDA serves as a guide not only in determining the right kind and amount of food that we eat but also in correcting deficiencies. IV. GLOSSARY

Adequate- sufficient in quality or quantity to meet a need or qualify for something. Anemia — blood deficiency: a blood condition in which there are too few red blood cells or the red blood cells are deficient in hemoglobin, resulting in poor health. Common causes include a lack of dietary iron, heavy blood loss, or the production of too few red blood cells due to disorders such as leukemia. Calcium- silver-white metallic element: a soft silvery white element that is an alkaline earth metal constituting about three percent of the Earth's crust. It is essential to the formation of bones and teeth.

Deficiency- shortage: an inadequate supply of something necessary, especially a nutrient Diet- controlled intake of food: a controlled intake of food and drink designed for weight loss, for health or religious reasons, or to control or improve a medical condition EAR-

Estimated Average Requirement (EAR) ; reflects the amount of a particular nutrient that meets the optimal needs of half the individuals in a specified group. Family- people living together: a group of people living together and functioning as a single household, usually consisting of parents and their children. Health- general physical condition: the general condition of the body or mind, especially in terms of the presence or absence of illnesses, injuries, or impairments | | Hemoglobin- oxygen-transporting substance in blood: an iron-containing protein in red blood cells that transports oxygen
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around the body Nutrition- is the science that studies how food relates to health. V. CRITICAL OPINION A. Conclusion- Therefore I conclude, that RDA is a very important factor in determining the right amount and kind of food that we should eat. Recommended dietary allowance provides useful guidelines for daily intake. Such guidelines are useful not only for professionals in nutrition but also for the growing number of families and individuals who eat irregular meals and rely on prepared foods, most of which are now required to carry nutritional labeling. B. Recommendation- I suggest that families should follow the guidelines shown in the RDA to achieve a better health status, to avoid deficiencies and to become a progressive member in the society. VI. REFERENCES Anazonoue -Bello, Justina. Food and Nutrition in Practice. MacMillan Education Limited, London, Reprinted 1997. Microsoft ® Encarta ® 2009. © 1993-2008 Microsoft Corporation. [pic]