INDIVIDUAL NUTRITIONAL NEEDS

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In the past 10 to 20 years, we have been bombarded with a large amount of information on nutrition, supplements, vitamins, low fat, low carb, and multiple other aspects of our diet which may be important in helping control and enhance our health. What has become obvious to me in reading and research over the years has taught me that we are all individuals and have widely varying individual needs which must be met in order to achieve optimum health. Additionally, a nutritional and metabolic pathway which has been followed for generations can be changed by social structure, governmental regulations, or "new" information and may profoundly affect the lives of future generations in the process. In 1931, Dr. Weston Price, a very enlightened dentist from the US, traveled to isolated and modernized colonies in various parts o the world. His contention was that good nutrition had enabled primitive or isolated tribes to maintain their health, avoid tuberculosis, heart disease, cancer, and dental caries by living on primitive foods. When the diet was changed to canned foods, sugar, refined flours, jams, chocolate, and coffee, the first generation and thereafter of inhabitants of these places begins to have debilitating diseases. He traveled from Europe to Eskimo country to South America and even to the Fiji Islands to study these individual groups and the impact on change of nutrition.

What became obvious in his studies was that a change in nutrition led to markedly altered ability to withstand disease and the elements, and diseases such as tuberculosis and diabetes became rampant when people were partaking of the new "civilized" nutritional pathway.

What this says is that individuals have their own nutritional needs, and if this is changed by "progress" or governmental standards, then it can have a significant impact on health and well-being.

This is only a gross example of how individual nutrition makes a big difference in the health of a particular group, and on a more selected basis we find that individual needs of nutrition and vitamins can vary widely. One unfortunate change that we are seeing in most current cultures is the impact of obesity on health and disease processes. We also know in general that obesity represents excess poundage due to mostly carbohydrate intake rather than increased fat or protein intake as is postulated by some. It is also noted in obese persons that many in this category experience malnutrition because of the fact that the excess "empty" calories are not working to improve health and well-being.

In his book "The Betrayal of Health," Dr. J.D. Beasley notes that the myth of the RDA (Recommended Daily Allowance) of vitamins is an average of the needs for the general population, but often has no relation to the individual. This is consistent with what we know, in that many of us have understood for a long time that one person's need for a

particular food or supplement may be entirely different than another. The question is, how different are individual requirements and what is the significance of these in terms of utilizing the proper level of nutrients to maintain health and prolong life?

First of all, a common misconception is that most foods by themselves contain all the common nutrients and recommended amounts and that there are sources of body energy other than food. This is just not true, and multiple varieties of food are needed to obtain a balanced nutritional intake.

A nutrient is a substance (usually food or supplements) that the body has to get from outside which helps in the metabolic process of digestion and metabolism of the food elements to maintain our energy levels and body temperature. Varying members of the animal kingdom have different needs just as we do in our human variation in our population. Cats and dogs do not need to take in vitamin C because their bodies manufacture plenty of this. However, humans lost the ability to make vitamin C over the past million years or so and now we find that we have to have this almost on a daily basis to maintain our normal metabolism. There are about 50 essential nutrients which each human being needs in one quantity or another, and which they obtain from their diet or supplements in lesser or greater amounts than are needed.

Certainly, proteins, fats, and carbohydrates are needed every day as is water, fiber, essential amino acids, minerals, and vitamins.

Is your need for a particular vitamin or supplement different than your husband, wife, children or your friends. Certainly our diets are different enough that we all take in different amounts of these combinations of elements from different sources. Vegetarians usually eat incomplete proteins such as cereals, beans, corn, and greens. The only "complete vegetable protein" is really found in soy products, which are not particularly healthy foods because of some negative metabolic effects. Although great detail on this issue is not within the scope of this article, it is true that each individual has different needs in terms of fats, proteins, and carbohydrates. The same is also true of vitamins and supplements.

When vitamins were "discovered" in foods by numerous pathways and investigators, it was clear that at least about 14 of these chemicals were essential for life. They are all organic substances, and most of them are used in the body to carry out chemical processes which create energy, synthesize hormones, and regular the body's function. What is not so well known in general is that individuals can have widely varying needs for these essential vitamins. Dr. Beasley notes that adolescence, pregnancy, illness, stress, medications, excess alcohol, sugar intake, and other dietary variations result in varying levels of depletion of the body's intake and stores of nutrients. He also notes that there is a link between nutrient depletion and obesity because of the quality of the diet usually eaten in obese individuals. Even though the RDA is stated to be an appraisal of the needs of each of us as individuals, these guidelines stray far from what is really necessary when you consider the various dietary intakes and nutritional needs of individuals. A sedentary person with low thyroid hormone level and diminished basal

metabolic rate requires far less carbohydrates than the individual who jogs three miles every day. This has to do with macro nutrition, but it has been found that the same variation for individuals is found in micronutrients and vitamins. If you study vitamin levels in the population, which has been done for about 60 years, you find that there is up to a 30-fold range of vitamin A levels in a large group of subjects. Other studies found a large variation in individual requirements for calcium, while other studies noted that plasma zinc levels were varied by a factor of 10 times.

With this information, it is hard to imagine that the RDA information for individuals is worthwhile. The information on RDA is only a guideline for the population at large and represents the average reasonable intake of these nutrients for the average of the population being studied. Of course, we already see that this is specific for individuals as well as varying cultures.

Within the past 30 years, an interesting technique for studying deficiencies of vitamins in individuals has been developed. We already know that we can get vitamin A levels, vitamin D levels, hormone levels, etc. from blood tests. However, it is difficult to understand all the vitamin needs of individuals except by testing that particular individual's tissue. This has been done with the use of adjusting nutrients in a growth medium of these individuals' own blood cells. By adding nutrients to the growth medium, the individual need for these blood cells is based on the uptake of particular vitamins before the lympathacites become "activated." In many cases they found that the actual nutrient requirements for patients exceeded the RDAs. One study showed that an autistic 7-year-old required 17 times the RDA for riboflavin and vitamin B-6.

This means that attention to individual nutritional needs, if these needs are satisfied, can mean the difference between robust good health and a lifetime of illness.

In summary, it is obvious that this country and various cultures in general have individual diets, individual nutrients available to them, and individual disease conditions often relating to nutritional deficiencies. In this country a study was done in the rural poor population in 10 states, and it was noted that nutritional inadequacy was not limited to the poor, but low socioeconomic groups were in the most precarious condition. Iron deficiency as well as vitamin A, B-2, and B-1 were common throughout the population. Half of women were calcium deficient and 95% of infants and children were iron deficient.

What this means is that each person must take the responsibility for their own health, longevity, and vigor. Most physicians do not usually diagnose and treat nutritional deficiencies, as their training is more oriented towards diagnosis and treatment of disease processes. There are numerous alternative medicine physicians and practitioners who have oriented their practice toward treatment of these problems. As with any other type of physician, careful selection of a person who will be responsible for your health in that way is an important process. Look at your own health status, your own nutritional needs, refer to the internet for information regarding nutritional pathways, and seek the best nutrition based on your individual need.