

## **How do you choose from the hundreds of nutrients on the market?**

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*What we see depends mainly on what we look for - John Lubbock*

### **Is there such a thing as A Balanced Diet?**

If you think you would be healthy if you ate a balanced diet, think about this. Although most Americans benefit from an abundant supply and variety of the seven important food groups, poor eating habits can prevent many people from getting recommended levels of all the nutrients they need. The introduction of Genetically Modified Organism (GMO) foods may further hinder the availability of nutrients in these foods.

### **Who is at greatest risk - nutritionally speaking?**

- It is obvious that beyond food choices, supplemental nutritional support is extremely important during pregnancy and lactation, illness and stress.
- The elderly and adolescents appear to be the two groups at greatest risk nutritionally. In addition to metabolic alterations in older patients, lack of interest in cooking, social isolation, poverty and inability to chew certain foods can result in inadequacy for thiamin, ascorbic acid, vitamins B6, B12 and folacin. Institutionalized elderly patients seem to be at particular risk of having low vitamin C and D levels.
- Erratic eating patterns in adolescents tend to revolve around missing regular meals - especially breakfast, and snacking on low-nutrient-density foods that rarely include fruits and vegetables. This means levels of important nutrients such as ascorbic acid, folacin and carotene are often not well maintained in the age group that needs them the most.

Nutritional assessment and guidance for everyone are worth thinking about and acting on. And, although nutritional supplementation is not a substitute for a balanced diet of wholesome foods, nutritional supplementation, when indicated, can help ensure a healthier nutritional balance.

If you are considering healthy aging programs, the first action should be to assure that all of the needed nutrients are present in amounts greater than those required by the RDAs. In addition, because of our Western Diet, essential fatty acids must be supplemented.

### **THE NEED FOR NUTRITIONAL SUPPLEMENTATION**

A popular misconception held by both the lay public and the medical profession is that the American diet supplies sufficient levels of all the nutrients needed by the body. In reality the western diet is characterized by imbalances and excesses. Two nationwide food consumption studies conducted by the USDA found that approximately 60% of the individuals surveyed were consuming only 70% of the daily minimum requirements of six essential nutrients. These nutrients are Vitamin B6, Folic Acid, Magnesium, Calcium, Iron and Zinc. Other nutrients are often deficient. Those surveyed were people who made an effort to eat (*and thought they were*

*eating*) a balanced diet.

Studies have shown that in order to meet the minimum daily requirements, one must consume at least 1100 calories of nutrient dense foods. None of these calories can come from "naked calories" such as sugar. This means that a person on a 1000 calorie diet cannot meet even the minimum daily requirements, much less the optimal levels, without supplementation. If weight loss is a goal, I refer you to my article called Low Carbohydrate Nutrition. It describes a low carbohydrate lifestyle modification, a pleasant, easy and efficient way to obtain optimal weight and blood lipid control. Nutritional supplements are also recommended. It may result in better control of blood sugar for diabetics than the classic diabetic diet.

### **The need for Essential Fatty Acids (EFAs)**

There is a noticeable lack of the essential fatty acids (EFAs) of the omega 3 family in the typical western diet. EFA's are long chain fatty acids of the omega 3 and omega 6 family that the human body must have to function normally, and that cannot be made by the body. While vegetable sources, such as flaxseed, have high concentrations of the parent oil of the omega 3 series, less than 2% is converted to EPA, and none to DHA. The fish oils are rich in EPA and DHA, which are the active forms.

Unfortunately, fish is not a part of daily eating patterns for most people consuming the typical western diet.

Accumulating published data point to the essentiality of the omega 3 family, and its importance during pregnancy and lactation for proper brain and retinal development. (See DHA in Perinatal Nutrition for a more complete discussion of the need for essential fatty acids for the infant.)

There is increasing evidence that a deficiency in essential fatty acids is associated with arthritis, cardiovascular disease and with many degenerative disease states. The reason for this association is improper modulation of prostaglandins, which results in poor control of the inflammatory process. (See my articles Musculoskeletal Pain and Heart Health" for protocols on these subjects.)

Many of the omega 6 fatty acids in our diets are hydrogenated, so they are no longer unsaturated. The trans forms produced by hydrogenation and heat have been shown to be detrimental to ones health and well-being.

### **Prostaglandin Pathways**

Aspirin, nonsteroidal anti-inflammatories and other common pain control medications block some, but not all of the prostaglandin pathways which are involved in pain. Steroids block all of the prostaglandin pathways, which has some very bad side effects. Unfortunately, the beneficial prostaglandins are also blocked. These medications have many unpleasant and sometimes dangerous side effects.

Ultra Omega-Linic, an essential fatty acid supplement which contains both the prostaglandin (pg) 1 (omega 6) and pg 3 (omega 3) precursors, is effective because it enhances these

pathways while competing with the pg 2 pathway (the one causing inflammation). In addition, the use of a product like Ultra Omega-Linic is especially helpful for people who cannot, will not, or should not take other forms of pain medication. Remember that supplementation with essential fatty acids at high levels requires vitamin E - at least 400 IU daily.

### **Individual Nutrient Requirements**

Individual nutrient requirements may vary considerably, particularly for certain groups such as young children, pregnant and lactating women, joggers, athletes, the elderly and persons who are ill or stressed. Unfortunately, as a result of these conditions, as well as problems such as poverty, ignorance in matters of food selection and preparation, dietary fads and confusion regarding the nutritive value of processed foods, even the minimum daily requirements are often unmet.

The minimum daily requirements were designed to prevent deficiency states and diseases in populations not individuals. They do not address the issue of individual variability and optimal nutritional needs

Many physicians are concerned about the trend toward nutritional deficiencies and excesses, problems with digestion and absorption, and environmental toxicity factors because they contribute to so many degenerative disease processes.

With the allergic patient, a situation of marginal deficiency can compound the patients' health problems. The converse is also true. Allergic conditions may directly or indirectly cause nutritional deficiencies. By the time this type of patient is seen by a nutritionally oriented physician, one can be assured that there has been a severe depletion of the body stores of vitamins, minerals and essential fatty acids.

### **Good Practices**

Given this information, it would be good practice for everyone to supplement their diet with at least a multiple vitamin mineral product and essential fatty acids. A good multiple formula, such as Ultra Vites, should contain vitamins and minerals in amounts which exceed the DVs (Daily Values) where they are likely to be deficient in the diet. In addition, when the patient is reacting to chemicals, or is at risk of developing cancer, their supplementation should also contain high levels of the anti-oxidants beta carotene, bioflavonoids, selenium and vitamins E and C. All women in the childbearing age should receive at least 400 mcg folic acid daily, to prevent neural tube defects of the fetus should they become pregnant. Ultra Vites from Nutrition Pure and Simple is an example of an especially good multivitamin mineral supplement that meets all of these requirements when taken at the recommended dosage. Ultra Preventive from Time Laboratories is another example. (See A Minimum Recommendation for further information.)

Physicians today, realizing the relationship between calcium and many degenerative diseases (osteoporosis for example), recommend calcium supplementation for their women patients. This is not surprising; calcium was one of the nutrients found to be marginal in the diet by the USDA studies. Dairy products, which are rich sources of calcium, must often be excluded from the diet during initial treatment of patients who are hypersensitive to them. For long term treatment, dairy products will be available in reduced amounts. Since it is very difficult to consume adequate amounts of absorbable calcium without consuming calcium rich

dairy products, a patient who does not eat dairy products is at great risk for calcium deficiency. Consider an amino acid form: Calcium 280 and D that is dairy free.

Magnesium (Ultra Magnesium Chelate) is another nutrient that was found to be below the RDA in the USDA studies. Magnesium is an important component of many enzyme systems. It is felt by many practitioners that lack of magnesium is as important a consideration in osteoporosis as is calcium. Magnesium is characteristically low in patients who are under stress. Both magnesium and potassium stores in the body are often depleted by the use of diuretics, and while the potassium is usually supplemented, the magnesium often is not. Calcium and magnesium, when supplemented, should be in a 2 to 1 or 1 to 1 ratio. Ultra Magnesium Chelate contains slippery elm to minimize the GI distress so common with other forms of magnesium.

Calcium 280 and D and Ultra Magnesium Chelate from Nutrition Pure and Simple (NPS) are very good supplements that are about 2.5 times better absorbed than the average inorganic minerals. Nutrition Pure and Simple has an extensive line of products, giving the practitioner a wide selection of choices.

### **Other reasons for nutritional deficiencies**

Of course, calcium and magnesium are not the only nutrient deficiencies to cause problems in patients who present with signs of degenerative disease, whose family history indicate cancer or heart disease, who do not meet the criteria which is satisfied by the RDA's, or those who have multiple food and chemical sensitivities. Often the patient has altered his or her diet, causing almost all of the essential nutrients to be in short supply.

Digestion and absorption are critical processes, and problems here can amplify the nutritional deficiencies in many people. Food hyper-sensitivity can alter both the endocrine and exocrine functions of the pancreas. Digestion problems can exacerbate nutritional problems. For instance, a zinc deficiency often occurs from the poor absorption of minerals. Zinc is an essential part of the enzyme that produces hydrochloric acid (HCl) in the stomach. The lack of HCl causes the pancreas to be poorly stimulated to produce digestive enzymes and bicarbonate buffering of the duodenum. Inflammatory bowel disease is notorious for causing nutritional deficiency.

The absorption of polypeptides caused by the incomplete digestion of proteins is largely responsible for the reaction seen in patients who have food hypersensitivities. The use of digestive enzymes to more fully digest proteins will reduce the number of larger polypeptides and assist in the handling of food hypersensitivity. Whenever poor protein intake or digestion is suspected, protein hydrolysates and amino acid combinations can be quite useful in restoring good nutritional status.



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