



TAHOMA CLINIC FOUNDATION

Nutritional Supplements Overview: *Expensive Urine or Promising Therapy?*

IN ADDITION TO improving one's diet and minimizing exposure to toxic chemicals, nutrient supplementation is often important for restoring and maintaining one's health. Numerous studies, described throughout this book, have shown that providing additional quantities of vitamins, minerals, amino acids, or other naturally occurring compounds can help relieve a wide range of symptoms and disorders.

Many doctors cling to the belief that the typical diet contains all the nutrients a person needs to stay healthy. We still occasionally hear that timeworn cliché that the only thing people obtain from taking supplements is "expensive urine." The beliefs that lead to such remarks reflect an incomplete understanding of human biochemistry and physiology. Perhaps if doctors better understood how nutrient supplements could work, they would be more inclined to pay attention to the research showing that they do work.

The rationale for using supplements extends beyond the rather obvious fact that refined, processed foods that are grown on depleted soil are low in vitamins and minerals. Even people who consume the most nutritious diets—particularly individuals suffering from illness—can often benefit from nutritional supplements. Some of the reasons that supplementation may be necessary or desirable are as follows:

- To compensate for a weak digestive system. Individuals who have difficulty digesting and assimilating nutrients may not be able to obtain what they need solely from their diet. Malabsorption may occur with advancing age, with the use of certain medications, and with a number of different diseases. In many cases, the effects of inefficient absorption can be overcome by providing higher-than-normal quantities of vitamins, minerals, and other nutrients.
- To overcome a defect in the transport of nutrients into the tissues. For example, in some individuals with heart failure, the capacity to transport magnesium into the heart muscle is impaired.¹⁰ Some patients with dementia appear to have difficulty transporting vitamin B12 from the bloodstream into the brain.³¹ In these patients injections of the respective nutrients resulted in clinical improvement.
- To compensate for a genetically abnormal enzyme. There are numerous examples of rare genetic disorders that result in unusually high requirements for a particular nutrient. We have only recently begun to discover that milder genetic variations are fairly common. For example, it is now well documented that many people are at risk of developing heart disease because they cannot metabolize homocysteine (a breakdown

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- To correct nutritional deficiencies induced by prescription drugs. The list of drugs that can adversely affect nutritional status is long, and includes diuretics, antacids, acid-blockers, anticonvulsants, asthma medications, prednisone, and some cholesterol-lowering drugs. The most common ways in which drugs cause nutritional deficiencies are by 1) inhibiting nutrient absorption and 2) increasing the loss of nutrients through the urine. Certain drugs also block some of the normal biochemical functions of nutrients, resulting in an increased requirement for those nutrients. The interactions between drugs and nutrients can be rather complex, and working with these interactions usually requires the advice of a nutritionally oriented doctor. Unfortunately, drug-induced nutritional deficiencies are often overlooked by the average doctor.
- To make use of direct chemical or pharmacological effects of some nutrients. For example, vitamin C in high concentrations has been shown to kill viruses⁵ and to inactivate histamine.³⁶ In addition, the presence of extra magnesium in the urine inhibits the formation of the calcium-oxalate crystals that cause kidney stones.³⁷ Vitamin B12 has been shown to degrade sulfites,³⁸ an action that would be useful for individuals with sulfite sensitivity.

When nutrients are used in amounts greater than those normally present in the diet, it is not always clear whether the effects are "nutritional" or "pharmacological" (drug-like). Consequently, using nutrients therapeutically tends to blur the distinction between farm and pharmacy. But, considering how much people can benefit, and how little risk there is when nutrients are used with appropriate precautions, we believe that Hippocrates, Mr. Swift, and Uncle Ruben would understand.