



## Lack of essential nutrients can seriously impair health

Staying healthy or getting healthy requires good nutrition. Although you can find many self-appointed experts expounding on the perfect diet for all, no matter what, the way you eat must meet three key principles.

- > Provide adequate amounts of essential nutrients.

- > Provide nutrients in forms that the body can utilize.

- > Provide adequate calories for your activity level.

**Question:** What is an essential nutrient?

**Answer:** An essential nutrient is a specific chemical found in food that the body requires for specific functions. Without the essential nutrient, body functions that require it will be impaired. The complete lack of a nutrient can lead to serious health problems and eventual death as the body becomes completely drained of the nutrient over time. The chemicals called essential nutrients (because our body requires them and can't make them) include water, vitamins, minerals, essential fatty acids, protein and its essential amino acid components.

**Q:** What happens if the need for a nutrient is not met?

**A:** Think of it this way. The human body is a rather large bag of

chemicals that are amazingly well organized to work together. This organization takes place in microscopic cells that make up various components of the body - ranging from bone cells to brain cells. As these cells gradually get drained of an essential nutrient, there won't initially be any obvious problem. Depending on the nutrient, it could take months or years before the consequences of a deficient intake start to become obvious.

**Q:** Can a person tell whether they are getting enough of an essential nutrient by how they feel?

**A:** Not initially. The symptoms of a deficiency develop gradually and slowly. At first the symptoms are minor and subtle. By the time the levels of a nutrient drop low enough to seriously affect a body function, it is likely difficult for someone to make a connection with a dietary change they made years ago.

**Q:** Given the choice between eating foods that meet essential nutrient needs and those that provide lots of antioxidants, which is the highest priority?

**A:** Essential nutrients. Actually, many essential nutrients play roles in cellular antioxidant functions, so clearly, meeting nutrient needs is critical for protecting the body. For

some nutrients, like iron, both deficiency and excess cause oxidative stress. Iron is necessary for the function or production of various antioxidants in the body such as melatonin, a strong antioxidant and hormone that promotes sleep.

Clearly, many of the nonessential phytochemical (plant) components of food are beneficial for health in the right amounts. However, too much can cause problems as well. In fact, many of these plant food substances bind to specific essential minerals and reduce the ability of the intestine to absorb the minerals.

Our next column will explain the importance of nutrient bioavailability - getting nutrients into the body where they function. Many food components cause a variety of nutrients to just pass through the intestines without getting absorbed. Some of these absorption blockers are good for us in the right amounts, so it is helpful to know how to play the balancing act of not too much and not too little.

Following that article, we will be writing about the importance of meeting calorie needs with the right mix of protein, carbohydrate and fat.

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