

HOW GOOD ARE VITAMINS?

James H. Carraway, M.D.
Eastern Virginia Medical School

In the past two issues of TW, there has been discussion about what antioxidants do and why they are necessary for your body function. Additionally, information about where to obtain natural antioxidants should have given you a broader perspective about what you have to eat in order to satisfy the requirements for adequate antioxidant levels. Remember that the bottom line is that every day we create “free radicals” or potentially damaging chemicals in our bodies, which can be excreted, metabolized, or neutralized with antioxidants. Given the fact that these processes are extremely important, what is the role of vitamins in this process?

We know that vitamins were not named, but were utilized as far as 3,000 years ago. In Greece, goose liver was used to treat night blindness, and it was only discovered within the past hundred years that this was because of the high concentration of vitamin A in goose liver. In 1757, James Lind, who was a doctor in the Royal Navy, discovered that potatoes and limes would prevent and cure scurvy. In 1757, it was noted in Italy that corn with the germ removed caused pellagra, and cod liver oil was reported to cure rickets. This is a small cross-section of information about vitamin A, vitamin C, vitamin B, and vitamin D. We know that small quantities of natural sources of these vitamins are essential and good for us and that being without any single one of the 32 essential vitamins and minerals does cause a pathological problem in our bodies which is specific to that nutrient.

A problem in our current times is that many of the foods including fruits, vegetables, and meats do not furnish the necessary vitamins and minerals which we need. Why is this? Cattle are fed in stalls on corn or grain and do not have the ability to roam and pasture and eat and digest all of the nutrients from the grasses which they would normally feed on. Fruits and vegetables are fertilized with high nitrogen, non-nutrient fertilizers which give a large and succulent appearance to the product, but which is vitamin and mineral deficient. Additionally, they may contain pesticides and other non-food chemicals. Combine the fact that our foods do not have the same adequate levels of vitamins and minerals which they had in the past along with the increased addition to our diet of hydrogenated and trans-fat, sugar, and non-nutrient starches and you have a low-nutrient diet. While it is true that many mineral and vitamin deficiencies can go for a long period of time without causing a pathological clinical state, it does eventually become an issue with the body and diseases may develop due to lack of these elements.

The next question that arises is, how much vitamin intakes do we need and what is the best source for this? The food and nutrition board of the National Academy of Sciences sets the RDA (recommended dietary allowance) for nutrients and changes it every five years. These are not specific individual requirements, but meant to be a guideline for the population at large. Most of the vitamins that are easily usable in our body come from

food and not from synthetic vitamins. Foods are the most important source of vitamins, and since the vitamin and mineral content of the currently available foods in grocery stores is low, we have to be very careful in selecting our diet on a daily basis. If we don't get enough vitamins and nutrients we should supplement our diet.

Of course, this is where the synthetic vitamins come in. We do know that there is a multi-billion dollar health-food industry which has put forth a lot of information which may or may not be valid. For example, most of the vitamin catalogues include over 100 synthetic or "extracted" nutrients which are sold as "essentials" for your health. It is really difficult to sort out what is the truth about nutrition and what is simply "hype" from the supplement industry to stimulate us to buy more products. I personally think that the truth lies somewhere in between.

There is evidence that taking a multivitamin every day over a long period of time such as 15-20 years will reduce the incidence of some health problems and will probably increase your lifespan. There have been many studies showing that excessive or large doses (mega doses) of vitamin E, vitamin C, vitamin A, B vitamins, etc. do not add anything to lower disease incidence or longevity. In fact, one study involving beta carotene and smokers showed that the incidence of lung cancer is actually higher in those people who have taken beta carotene. On the other hand, the segment of the population that eats increased fruits and vegetables especially high in vitamin A and carotenoids has a reduced incidence of lung cancer and other cancers as well.

We need to look at each one of these synthetic supplements carefully, reduce our incidence of non-nutrient food intake, and constantly study and think about what our real needs are. For example, if you read about a new supplement, you can go online and search for the negative side as well as the positive side of taking this particular supplement. Should you need further advice than that, a specialist in natural or alternative medicine might be able to give you a better answer.

Should you decide to take excess vitamins, remember that mega doses can be harmful to you. Excessive vitamin A can cause lack of appetite, retarded growth in children, hair loss, and headache. Excessive vitamin D can cause kidney stones, tissue calcification, high blood pressure, and even kidney failure. Excessive vitamin E can cause problems with headaches, nausea, GI disturbances, and reduced sexual function. Every single vitamin in excess has the potential to cause a problem. Therefore, it is probably wise not to ever think about "mega doses" of vitamins.

While warning against excessive vitamins, it is good information to know that most of the studies done in the US show that people are deficient in chromium, vitamin B6, magnesium, vitamin C, vitamin B1, vitamin A, and even calcium and iron. As you can see, this whole process of trying to decipher whether you are getting enough nutrients versus too much can be quite difficult and probably requires a lot more attention than you have been willing to give it in the past. So, what are the bottom line recommendations in order to be able to stay healthy? First of all, you can be tested for vitamin levels. If you are low in one or more vitamins, supplement with the appropriate (preferably organic)

food to boost your levels. Take a multivitamin daily to supplement your needs. Remember, however, that vitamins are not a substitute for food-based nutrients.