

The Vitamin E Debate

A new study claims that vitamin E can be harmful at certain dose levels.

Question: I've heard news reports that say high doses of vitamin E might be associated with an increase in death rates in people. Are the reports true, and should I stop taking E?

Answer: The study being cited is what is known as a "meta-analysis." It is so named because data derived from previous studies is pooled together and studied to form a conclusion.

In this case, 19 existing studies were pooled. The researchers involved found that doses of vitamin E at or below 150 IU (International Units) per day tended to lower death rates and doses higher than 150 IU per day tended to raise them.

Many other researchers believe that a meta-analysis cannot provide scientific proof of anything. That's because it is based on the data of other studies, each of which researched population groups differently and used differing methods to obtain facts.

For instance, some studies cited in this analysis used natural vitamin E, and others used synthetic vitamin E. Some involved people with cardiovascular disease; others involved people with cataracts. Some combined vitamin E with other vitamins; others used it alone. Because of the diverse characteristics and methodologies of all these studies, any analysis based on pooling of their data is considered scientifically imprecise.

Several other problems exist with this meta-analysis: The study populations it cited were made up of people who were

chronically ill.

With sick people, very high doses of vitamin E (up to 2,000 IU per day in some of the studies) must be used with caution. And for people with serious diseases, a complete assessment needs to be made of medical history, current condition, use of medications and so forth.

The fact that high doses of vitamin E were associated with a slight increase in mortality in sick people provides no evidence that vitamin E is harmful to healthy people.

Perhaps the most profound flaw in the analysis is that in all the studies vitamin E was used in its isolated, “alpha-tocopherol” form. Vitamin E is actually a family of nutrients consisting of four tocopherols (alpha, beta, gamma and delta) and four tocotrienols (alpha, beta, gamma and delta). To simplify, just remember the “4 + 4 rule”—each side of the “nutrient family” has four “members.”

In its food form, vitamin E always exists as some combination of these eight elements. In most nutritional supplements, however, vitamin E (natural or synthetic) is almost always provided only as isolated alpha-tocopherol.

For optimal health benefits, the various forms of vitamin E need to be taken together. They work together as an antioxidant team.

Each form of vitamin E has its own role on the team. For instance, tocotrienols have been shown to reduce the level of harmful LDL cholesterol, leading to a lowered risk of heart disease. They also are able to clear atherosclerotic blockage

in the carotid artery, greatly reducing the risk of stroke.

Tocotrienols also inhibit the growth of cancer cells. In addition, alpha-tocopherol and gamma-tocopherol have proved to be effective in inhibiting the growth specifically of prostate-cancer cells.

When taking vitamin E, it's important to remember that it should always be provided as a complex—as alpha-tocopherol plus mixed tocopherols plus tocotrienols.

The authors of the meta-analysis acknowledge that isolated alpha-tocopherol has been shown to displace other forms of vitamin E in the body. They offer this as a possible explanation of their negative findings on vitamin E. I agree with this explanation.

As a physician, I know that nutritional supplements can provide optimal health benefits only if they consist of nutrients in their most complete, natural and bio-available forms. The vitamin E in these pooled studies failed to meet that requirement.

God, for a reason, has put together a vitamin E family, each member working together to give you maximum protection against disease. The next time you pick up a bottle of vitamin E, look at the label and ask yourself if it is based on the 4 + 4 rule.