



July 24, 2010 – Valley Forge, PA

## Supplement Safety

The mantra of too many healthcare professionals is that dietary supplements are unregulated, they may not be safe, and they're unnecessary. Not so.

First, supplements are regulated but differently from pharmaceuticals. Second, if we really could get every nutrient from the foods we eat, maybe supplements wouldn't be necessary, but there's no evidence that we do despite all the rhetoric from the experts.

However, the safety issue is difficult to assess. There have been examples of some vitamin or herb taken in megadoses that had some negative effect, but there are no data to prove that dietary supplements are bad for entire populations. Thanks to the Vital Study, we now have a partial answer to the safety question. In fact, taking certain supplements may actually reduce your risk of dying—and probably not the supplements you'd expect.

### The Study

The Vitamin and Lifestyle Study (VITAL) is a large-scale study in Washington State designed to assess the relationship of dietary supplements and specific health outcomes (1). One of those outcomes is death. Over 77,000 subjects, who were 50 to 76 at the start of the study, have been followed for eight to ten years. They were asked about their supplement use at the beginning of the study. The researchers have published a number of papers; the current one looks at the mortality risk (death rate) in relation to "less-common" dietary supplements—less common to them, maybe, but many people use omega-3 fish oil, glucosamine, chondroitin, ginkgo biloba, and many others as well. They divided the subjects into several groups with the control group being those who did not use the supplement.

The most important finding was that there were no differences in overall mortality between the group taking supplements and those who did not. That's important because they found no harm in taking the supplements for extended periods of time. But they also found that those subjects taking glucosamine and chondroitin had a 17% reduced mortality rate when compared to those not taking those supplements. There was also a trend for those taking the highest amount of fish-oil supplements to have a lower mortality rate.

While there was no explanation for why those supplements may reduce mortality, I'll throw one out there. Glucosamine and chondroitin provide nutrients for all connective tissue including bone and joints. If this population had healthier joints and bones, they may have fallen less and had fewer fractures; that's a contributing factor for mortality in elderly subjects. They didn't report it, but it could be one possible explanation.

### My Take

The most important concept of health and medicine is summed up as "First, do no harm." Whether it's actually a Hippocratic quote or not, it's an important tenet of healthcare. To me, this study supports the idea that the chronic use of dietary supplements will not harm and may do some good. I think that those who benefit and those who don't will ultimately come down to a genetic tendency for using nutrients. That's why I'm such a strong proponent of genetic testing for weight management and nutritional needs—if you base what you do on your genetic tendencies, you're likely to have better outcomes.

What this study didn't say is that every herb in the world is safe. This study looked at vitamins, minerals, specialty supplements such as fiber and garlic in addition to those mentioned, but looked at only two herbs: saw palmetto and ginkgo biloba. It doesn't mean that other herbs are not safe—we just don't know. They haven't been tested.

## The Bottom Line

When you talk with your healthcare professional, you now have a large-scale, well-done study to back you up as the reason for wanting to take your supplements. If nothing else, it proves they do no harm. But there was one more part of this study that I have to mention. The absolute best way of reducing mortality was exercise. The data were clear: the more the subjects exercised, the lower the mortality rate. So before you add any more supplements, you might just benefit more from getting off it and getting after it first.

## Straight Talk on Health

This Sunday, I'm interviewing Mrs. Michigan Stephanie Hunt on my radio show. Stephanie is also the spokesperson for the National Organization for Rare Disorders (NORD); her son, Donnie, has Rubinstein-Taybi syndrome, a rare genetic disorder. We'll talk about that as well as what it's like to represent Michigan in the upcoming Mrs. America contest. Be sure to catch this special episode of *Straight Talk on Health* at 7 p.m. Sunday in the Eastern Time Zone on WGVU-FM 88.5 or 95.3, or listen live via the Internet by going to [www.wgvu.org](http://www.wgvu.org) and clicking on "Listen Live" in the gray bar at the top.

What are you prepared to do today?

### Dr. Chet

**Reference:** Am J Clin Nutr 2010 91: 1791-1800.

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