



The independent newsletter that reports vitamin, mineral, and food therapies

# **Perspectives on Recent Issues**

By Jack Challem

## **Putting Negative Studies in Context**

Several medical journals have recently reported negative findings on antioxidants and other nutritional supplements. Some of the studies, which I've written about in previous issues of *The Nutrition Reporter*, have been totally ludicrous. They often garner big headlines, even though the research is of dubious quality.

How do you make sense of these negative reports? Pick any issue of *The Nutrition Reporter™*. In four pages, the newsletter summarizes more positive studies than the total number of negative studies published over an entire year. Whenever you consider the broader picture of nutrition research, the studies showing health benefits from nutritional supplements far outnumber the negative studies.

Perhaps someone should research why negative studies on nutrients get more attention than the positive studies. I attribute it to intellectual arrogance (what could nutrition have to do with health?), the medical and economic influence of the pharmaceutical companies (who don't want competition from inexpensive and nonpatented treatments), and journalists who cannot critically report medical journal articles (and seem to relish anxiety-provoking headlines).

Always keep this in mind: nutrients form the biochemical foundation of our bodies. People do not develop heart problems from a Lipitor deficiency. They develop problems because of nutritional and biochemical problems. And yet most physicians have little understanding of nutrition and biochemistry.

That might sound like a gross generalization, so I'll explain. A medical school professor once asked me to sit in on his biochemistry class. It was right after the students got their mid-term grades. The students were milling about, and the level of anxiety was thick enough to cut with a knife. Most of the med school students failed or barely passed their biochemistry exam. And what did the professor tell the students? Don't sweat it – they'll still earn their MD degrees. I was stunned. How can physicians doing a good job treating patients without understanding the biochemical workings of the body? If more doctors understood biochemistry, nutritional therapies would be more widely practiced.

In my humble opinion, no one should receive an MD degree without passing biochemistry with flying colors. When you understand biochemistry, you understand that everything (even genes) starts with nutrition.

## It's a Dirty Business

My fellow health journalists have an annoying habit, when a negative study on vitamins is published, to point out that vitamin, herbal, and related supplements are a \$20 billion a year industry – as if to to say all this money is based on deceiving consumers.

I've never heard a mainstream journalist take the same approach when writing about drugs, drug companies, or the pharmaceutical industry. So I'll provide some numbers for perspective. The drug Lipitor, made by Pfizer, generates more than \$12 billion in revenues each year worldwide. The annual revenues of Merck, just one of the drug companies, are \$23 billion worldwide. The entire pharmaceutical industry, in just the United States, has revenues of more than \$200 billion.

## And the Business Gets Even Dirtier

You might have heard of the drug OxyContin. It's a powerful narcotic sold on prescription and widely abused as a street drug.

In May, three executives from Purdue Pharma, the maker of OxyContin, pleaded guilty in federal court for "misbranding" the drug. The company promoted OxyContin to doctors by saying that it was less likely to be addictive and abused than other drugs. The company earned more than \$1 billion in revenues a year from OxyContin.

Purdue Pharma paid \$600 million in fines to the Continues on other side



federal government. Three top executives and their lawyer also paid \$34.5 million in fines.

According to an article in the *New York Times*, presidential candidate and former New York City mayor Rudy Giuliani helped represent Purdue Pharma in meetings with the U.S. Department of Justice.

#### **Sneaking Around Drug Laws...For Profit**

By federal law, pharmaceutical companies are not allowed to pay doctors for prescribing drugs. That's one reason why drug companies give doctors a lot of other perks, such as funding research, paying speaking honorariums, buying trips, and supplying meals at clinics and hospitals.

But as you might imagine, there's a big loophole. The drug companies can "rebate" part of the cost of drugs that doctors dispense in their offices. These drugs are most commonly administered intravenously. By some estimates, these rebates add up to hundred of millions of dollars each year, forming a major source of revenue for doctors.

In an article in the *New York Times*, drug company representatives were quoted as saying that it's a normal practice. Normal is not necessarily ethical.

#### The Benefits of Supplements in Dollars

In May, the Dietary Supplement Education Alliance (DSEA), an industry supported group, reported its findings on the economic benefits of taking just a few dietary supplements. DSEA calculated what widespread supplementation with calcium and vitamin D, lutein and zeaxanthin, folic acid, and omega-3 fish oils would save in health care costs. The answer: an impressive \$24 billion savings in health care – a little more than the revenues of the entire supplement industry. The lion's share of the economic benefits, according to the DSEA calculation, would result from fewer hip fractures, saving more than \$16 billion.

Add in the health benefits of vitamin E, the B-vitamin complex, and – who knows? – maybe the \$20 billion dollar supplement industry would obviate the need to spend \$200 billion on drugs.

I have no doubt that every country could save billions of dollars in health care costs if governments encouraged people to take vitamins and other types of supplements. But the problem, economically, isn't the huge amount of money everyone would save. Rather, it's the amount of money many people and business would lose.

Allow me to explain. If we were to save \$24 billion or \$100 billion in health care costs, someone who now profits from illness would lose those huge

amounts of money. The drug companies would lose billions of dollars in revenues, as would hospitals and doctors. Millions of people would lose their jobs.

The irony is that our entire health care system is based on a steady influx of sick people, and the economics work against making people healthy and reducing health costs. Relatively few people would profit, though the society as a whole would benefit from healthier and more productive people.

#### **One That Got Away: A Selenium Study**

Occasionally we miss an exceptional study on nutrition, and although this study is three years old, it deserves recognition.

Malcolm J. Jackson, PhD, DSc, of the University of Liverpool, England, and his colleagues asked 22 adults to take 50 or 100 mcg of selenium or placebos daily for 15 weeks. All of the subjects began the study with relatively low selenium levels.

After six weeks, all of the subjects received a live but attenuated oral polio vaccine, and three weeks later all of the subjects received 100 mcg of selenium intravenously.

Selenium supplements boosted the immune response to the live polio vaccine. The mineral increased production of interferon gamma and other immune-related chemicals, led to a more rapid proliferation of T-cells, and increased T-helper cells – all signs of a more vigorous immune response to the virus-containing vaccine.

In addition, people who had received selenium supplements did a better job of clearing the polio virus from their bodies. Analysis of their feces also found a lower incidence of viral mutations.

Jackson wrote that a lack of selenium compromised the subjects' ability to respond to viruses.

Reference: Broome CS, McArdle F, Kyle JAM, et al. An increase in selenium intake improves immune function and poliovirus handling in adults with marginal selenium status. *American Journal of Clinical Nutrition*, 2004;80:154-162.

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