

# The Nutrition Reporter™

EXTRA

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

## Warning: Reading Bad Studies Can Be Very Dangerous for Your Health

In our 24-hour news cycle, headlines are written to shock and scare, and most reporters don't have the grasp of medicine needed to critically evaluate whether a study is valid or a waste of time and trees.

These are particularly relevant thoughts to ponder with the latest negative studies on vitamin supplements. Is there an explanation? Yes. It's in a book called *How to Lie With Statistics* – anyone can manipulate statistics to support any argument.

A recent article in the *Archives of Internal Medicine* reported that older women who took a variety of supplements, including multivitamins, had about a 1 percent greater risk of death from disease. This article was the height (or nadir) of statistical manipulation. The only significant association was between iron supplements and a greater risk of death, a link that has been known for years. The study was suspect for a number of reasons, not the least of which was an accompanying editorial by a researcher who had previously published a shoddy study claiming that antioxidant supplements also increased the risk of death. If vitamins were that dangerous, we'd all be dead instead of reading this newsletter.

The *Archives* study had serious flaws. The subjects were asked to remember, on three different occasions over almost 20 years, which supplements they had taken. This type of data collection is notoriously inaccurate. After all, do you remember exactly what you took years ago? And would something you took 20 years ago actually cause your death today? It's doubtful.

The researchers ignored the fact that older women (and men) have a higher risk of death simply because of their age, their greater likelihood of having serious age-related diseases, and their likely use of multiple drugs, a common cause of illness (i.e., side effects) and death. If the researchers had looked, they would have found a far stronger correlation between the use of prescription drugs and risk of death. But I think their intention was simply to malign vitamins.

The very next day, a study in the *Journal of the American Medical Association* reported that men who had taken vitamin E supplements were more likely to develop prostate cancer, compared with men who did not take the vitamin. First, the vitamin E used in the study was synthetic, which has very different properties from the natural form. That alone could account for the finding, assuming that it was accurate.

Second, the diagnoses of prostate cancer were made years after the men had stopped taking vitamin E supplements, which to me would suggest other causes. After all, our lives are filled with thousands of variables that could confound any study's results. Furthermore, prostate cancers are typically so slow growing that many of the cancers were probably undetectable when the study began, which would have further skewed the findings.

One of the best minds in science, John P.A. Ioannidis, MD, has shown that human studies are rife with financial, professional, and personal biases. An editorial in the journal *Nature* noted that the peer-review process is essentially a sham; editors and reviewers don't exercise a lot of critical judgment in the studies they select for publication. I would add one more criticism: studies are a one-size-fits-all approach to medicine, using one or two drugs or supplements to treat one condition. Supplements (or any kind of treatment) should be tailored to the individual.

When you look at the tens of thousands of studies published on vitamins, it becomes clear that the vast majority show clear health benefits. After all, vitamins are essential nutrients. At worst, some of the studies show no benefit. One leading researcher told me years ago that it's important to look at the totality of research and to not put a lot of weight on one or two studies that don't make sense.

In sum, these negative reports made for great headlines, but very poor science. –Jack Challem

## Reviews of Health Books and iPhone Apps

*No More Fatigue*, by Jack Challem (John Wiley & Sons, 2011, \$25.95). I must confess – I cannot write a bad review of my own book, so bear with me. The genesis of the book was my frustration with so many companies peddling energy drinks and supplements, many of which contain stimulants. To address the real cause of why a person is tired, you have to consider a number of underlying factors, which led to my “five circles of fatigue” concept. Stress (#1) disrupts our equilibrium, and sets the stage for eating junk food. Stress and poor dietary habits (#2) alter our hormone (#3, chiefly adrenal and thyroid) levels. Add chronic diseases (#4) and the aging process (#5), and we have the five most common causes of fatigue. The book helps readers pinpoint the principal causes of their fatigue and then suggests a variety of steps to increase energy levels without the use of stimulants.

*The Definitive Guide to Prostate Cancer*, by Aaron E. Katz, MD (Rodale, 2011, \$16.99). As a man of a certain age, I’ve been tracking the current controversies over prostate-specific antigen tests, biopsies, and surgery. According to recent studies, biopsies and surgery harm far more men than they help. The field of urology seems hell-bent on turning the Hippocratic Oath upside down, leaving large numbers of men incontinent or impotent, without any significant increase in life expectancy. Katz is a rare physician – a respected urologist who performs conventional treatments and also employs integrative therapies, including diet, vitamins, and herbs. This book explains everything a man needs to know. One gem: I learned about the PCA3 gene test, which is about as good as a prostate biopsy for determining the presence of cancer (and whether it is indolent or aggressive) – and is so much safer than a biopsy.

*Your Medical Mind: How to Decide What Is Right for You*, by Jerome Groopman, MD, and Pamela Hartzband, MD (Penguin Press, 2011, \$27.95). I believe that if you’re faced with a serious diagnosis, you can’t simply trust the advice of your doctor or even a second opinion. You have to bone up on your diagnosis and learn as much as you can about your treatment options. Navigating through all the medical information isn’t easy, but it’s the only way to make a sound decision. Groopman and Hartzband discuss the subjectivity of doctors, the research, and patient decisions. For example, for every 48 men undergoing prostate surgery, only one person benefits. The others would have lived as long without surgery (because most prostate cancers grow

so slowly). Doctors have their biases – too often a surgeon will recommend surgery, and a radiation oncologist will recommend radiation. This book is a valuable tool to help you balance the risks and benefits of drugs and other medical treatments.

*Our Bodies Our Selves*, by the Boston Women’s Health Book Collective (Touchstone, 2011, \$26). I saw an early edition of this book – printed on newsprint – 40 years ago. It was informative but seemed a bit counter-culture at the time. Over the years it has grown into *the* reference for women of any age who want to understand their bodies and maintain their health. The latest edition weighs in at more than 900 pages, many times the size of the original book. This is a must-read for women and their partners.

*Epigenetics: The Ultimate Mystery of Inheritance*, by Richard Francis, PhD (W.W. Norton, 2011, \$25.95). Forget everything you learned in school about genetics. Epigenetics is the real future of genetics, and it’s about how our environment – stress, diet, and toxins – turns our genes on and off. This is an excellent book that explains the nature of epigenetics for the sophisticated reader. I did wish the author spent a little more time discussing how folic acid and other nutrients play a crucial role in regulating the epigenetic behavior of genes and suppressing cancer-promoting genes.

*iPhone Apps on Nutrition*. Apple sells many apps for people interested in nutrition. James Hollender has designed a number of very good ones for people with very specific dietary interests. They include *iProteins* (protein content of foods), *Vitamin K* (amount in different foods), *iSatFat* (amount in foods), *VitaTrack* (folic acid content) *iFiber*, *iCarbs*, *iSugars*, *iCals*, and *iCholesterol*. They sell for \$1.99 each. *iCals Lite* is free, but contains advertisements.

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