

The Nutrition Reporter™

EXTRA

© Jack Challem December 2012 Vol 23 No 12

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

Observations on Recent Studies

Vitamin D and the Common Cold

A recent study published in the *Journal of the American Medical Association* found that large monthly doses of vitamin D failed to reduce the risk of contracting the common cold. As the study's lead scientists, David Murdoch, MD, was quoted by a HealthDay reporter, "In healthy adult populations, vitamin D will not prevent or reduce the severity of common colds."

Those were very carefully chosen words. After all, three of every four Americans are deficient in vitamin D, which makes them *unhealthy* – and likely to benefit from taking supplements. Other studies have found that supplemental vitamin D does in fact reduce the risk of developing upper respiratory tract infections (which include the common cold and most types of influenza) in adults and children.

Vitamin D is known to activate a variety of immune compounds that fight the germs that cause run-of-the-mill upper respiratory tract infections and tuberculosis and very likely other types of infections. As I was writing this, I received a telephone call from a senior citizen who explained that her doctor said that her vitamin D blood level of 25 ng/ml was normal. It's hard to believe that, with all the research on vitamin D (more than 14,000 medical journal papers in just the past five years), some doctors still don't know the basics. Less than 30 ng/ml is a sign of deficiency, and anything less than about 45 ng/ml is insufficient to activate many of the enzymes that depend on vitamin D. So realistically, anyone with levels less than 45 ng/ml has less than optimal vitamin D levels. A good range to strive for is between 50 and 60 ng/ml.

So-Called Junk DNA

In my experience, a lot of doctors tend to be dismissive of what they can't explain. Two-time Nobel Laureate Linus Pauling said it best: "If a doctor isn't up on something, he's down on it."

Ten years ago, the prevailing belief was that each

of our cells contained around 100,000 genes, the groupings of DNA that manage the functions of each of our 70 trillion or so cells. Then came the discovery that each of our cells contained only around 22,000 genes. This was pretty humbling because the water flea (barely visible to the naked eye) has 31,000 genes, a mouse has 25,000 genes, and a grain of rice has 23,000 genes in each cell.

This "gene envy" gave more credence to the science of epigenetics, essentially the modifiable software that turns on or off many (if not all) of our genes. Many nutrients, such as vitamins, play major roles in epigenetics and regulating gene activity.

In between our genes are what scientists have long described as "junk DNA." These collections of DNA were assumed to be inactive spacing devices between the genes that did the real work. However, junk DNA accounts for 98 percent of our DNA. Nature usually has a purpose for things, and I figured that a purpose would eventually be found for our junk DNA.

A couple months ago, a whole new world opened up. Teams of scientists had been quietly working for 10 years to figure out the real story behind junk DNA. They simultaneously published 30 scientific papers in journals. You can probably guess the rest: Junk DNA has a major role in regulating the activity of nearby genes.

The lesson, as many antique dealers will tell you, is that there is no junk.

A Better Perspective of Studies

I've spent more than half my life reading and interpreting studies on nutrition, as well as medicine and health in general. As you know, studies are the lifeblood of *The Nutrition Reporter*™ newsletter. But part of me is adopting the skepticism of a former magazine editor. Studies often aren't what they seem.

Part of the problem, which I've written about before, is the 24-hour news cycle that surrounds us. Cable news stations and talk radio stations are the

Continues on next page

worst in this respect. They have to fill up time with whatever nonsense they can. The problem is compounded by the near absence of journalists who now specialize in health or medicine. The result is that the latest study – e.g., that vitamin D or fish oils might not work – is presented in the scariest possible way to get viewers’ attention. Furthermore, the latest study is almost always reported without any context – e.g., how meaningful is one negative or null study when thousands have demonstrated benefits? And most of the time, a negative story on supplements also mentions that vitamins and related supplements are part of a \$26 billion a year industry. That sounds like a lot of money until you consider that it’s only about half of what just one drug company, Merck, takes in each year.

A more fundamental problem is that it has become difficult to conclusively prove almost anything in human research. Many studies are simply statistical machinations that obscure any real-world benefits. For example, a major study of cholesterol-lowering statin drugs reported a 50 percent lower “relative risk” of heart attack or stroke. But in real-world numbers, only one person of every 120 taking statins benefited. In other words, 119 people were being medicated for no good reason.

Many other studies use cells or mice, which yield important information, but cells in a dish or rodents aren’t people. Many other studies simply report associations, or correlations, rather than any cause and effect. Again, there are benefits to this research, but they are not the end all. Even the so-called gold standard of studies – the randomized double-blind clinical trial – more times than not is riddled with biases, according to the work of John Ioannidis, MD. I addressed many of these biases in one of my own scientific review papers. (see Challem J, *The Blind Leading the Blind: Common Problems with the Nature of Clinical Trials. Alternative & Complementary Therapies*, 2011; 17:279-283.) One of the big problems, which I noted, is that most nutritional supplement studies follow the drug model – that is, one nutrient against one disease. But nutrients are not drugs, and they should not be tested as drugs. They are natural constituents of our biochemistry, and they always work as a team.

I’m not trying to discourage you from reading my newsletter or paying attention to research. Rather, the overall trends are really what’s important because no science is 100 percent consistent. You always have to ask yourself: Does the study make sense based on what we already know? We wouldn’t exist without nutrition. Ergo, good nutrition is essential. –JC

Reviews: Two Notable Books

Wheat Belly: Lose the Wheat, Lose the Weight, and Find Your Path Back to Health, by William Davis, MD. (Rodale, 2011, \$25.99) There are now numerous books that indict wheat as a major cause of health problems. Many of these books focus on gluten (a family of proteins in wheat and many other grains) and gluten intolerance. *Wheat Belly* is the most recent and may very well be the best so far. Davis points out that modern wheat, with 42 chromosomes, is a very different plant from its ancient ancestor, einkorn, which had only 14 chromosomes. That’s a huge genetic difference, and one that might account for many of the problems associated with modern wheat products, including bread, pasta, and pizza. Nearly everyone who reduces or eliminates wheat from their diet feels better and finds it easier to lose weight. Davis presents a fascinating history of wheat and the problems it causes. If you are wheat sensitive, the solution is really simple: stick with fresh foods – fish, chicken, meats, vegetables and fruits. One can learn to live without bread and pasta.

The Missing Wellness Factors—EPA and DHA, by Jørn Dyerberg, MD, and Richard Passwater, PhD. (Basic Health Publications, 2012, \$18.95) The omega-3s – namely EPA and DHA – are among the current stars of the nutrition world. This book is unique because it is a collaboration between Dyerberg, who first identified the link between fish oils and cardiovascular health, and Passwater, a researcher with an excellent grasp of nutritional biochemistry. The book traces Dyerberg’s discovery of the benefits of omega-3 fish oils, discusses their essential roles in human biochemistry in understandable terms, and then proceeds to explain how they benefit a variety of physical and mental health problems. Finally, the authors provide specific dosage recommendations for a variety of conditions.

The Nutrition Reporter™ newsletter (ISSN 1079-8609) publishes full monthly issues except for August and December and is distributed only by prepaid subscription. This issue, Vol 23 No 12, © December 2012 by Jack Challem. All rights reserved. Reproduction without written permission is prohibited. Phone: (520) 529.6801. Email: nutritionreporter@gmail.com. The Nutrition Reporter™ is strictly educational and not intended as medical advice. For diagnosis and treatment, consult your physician. Subscriptions are \$30 per year in the U.S.; either \$36 US or \$42 CDN for Canada; and \$44 for all other countries, payable in U.S funds through a U.S. bank. The Nutrition Reporter™ is a trademark of Jack Challem.

The Nutrition Reporter™

Post Office Box 30246 • Tucson AZ 85751-0246 USA

Editor and Publisher: Jack Challem

Copy Editor: Mary E. Larsen

Medical and Scientific Advisors

Ronald E. Hunninghake, MD Wichita, Kansas • Ralph K. Campbell, MD Polson, Montana

Peter Langsjoen, MD Tyler, Texas • Marcus Laux, ND San Francisco, Calif.

James A. Duke, PhD Fulton, Maryland • Andrew W. Saul, PhD Rochester, New York