

**BAD SCIENCE + BAD MEDIA (+ VESTED INTERESTS)
= CONFUSED CONSUMERS**

The latest sleight of hand from the anti-vitamin lobby

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Today sees the release of yet another “study” led by Serbian scientist and “visiting researcher” at Copenhagen University Hospital, Goran Bjelakovic. His name is now synonymous with vitamin meta-analyses (studies of other studies) which appear to show that vitamin supplements either don’t work or end up increasing your risk of death. Two recent bursts of negative international headlines on vitamins supplements (1 October 2004 and 28 February 2007) followed releases of previous research papers (see asterisked articles in Reference list below).

What consumers need to know and are not being told is:

1. **This isn’t new.** This is *not* a new study! It is a scientific rehash of the very same data sets (barring one) that led to the previous negative studies – and these methodologies tell us nothing about the way in which high quality combinations of nutrient supplements work! For a previous critique on why the methods used are irrelevant, see a detailed analysis by Dr Steve Hickey, a member of the ANH Scientific Expert Committee: http://www.alliance-natural-health.org/docs/ANHwebsiteDoc_270.pdf
2. **This isn’t research.** This is a re-analysis of studies that have been conducted and reported on previously, led by a man at a computer. In this case, a group of men and women seemingly with a known axe to grind, who have never produced a study favourable to nutrient supplementation, which is itself statistically unlikely unless you have a bias.
3. **This isn’t meaningful.** When you select or reject studies on criteria that only mean something to statisticians, and ignore important things like duration, how long the study ran for — which ranged from 28 days to 14 years — your findings are immediately meaningless. Even the huge difference in dose of supplements between different studies — Vitamin E ranging from 10 to 5000 units daily, for instance — they didn’t deem important.
4. **This applies only to synthetic forms of vitamins (as produced by the pharmaceutical industry).** The authors of this latest Cochrane review state: “The present review does not assess antioxidant supplements for treatment of specific diseases (tertiary prevention), antioxidant supplements for patients with demonstrated specific needs of antioxidants, or the effects of antioxidants contained in fruits or vegetables.” This shows that the study has no relevance to natural sources of vitamins and minerals or antioxidants sourced from plants (e.g. flavanoids, anthocyanins, sulforaphanes, salvestrols/resveratrol, etc.),

which are included in many of the leading-edge natural health supplements claiming potent antioxidant activity.

5. **Natural vitamins and minerals are lifesavers.** There is extensive scientific evidence that higher intakes of vitamins in the forms and combinations consumed in the diet substantially reduce risk of killer diseases such as cancer and heart disease. In fact, it is this research (some of which is referenced in the introduction to both the JAMA and Cochrane papers) that has stimulated pharmaceutical companies to undertake research on pharmaceutical-grade, synthetic forms of supplements, which they manufacture. There are good reasons why this pharma-sponsored research has generally yielded disappointing results. These reasons have been considered in many previous rebuttals. See also: http://www.alliance-natural-health.org/docs/ANHwebsiteDoc_231.pdf
6. **Over the top on synthetics!** The studies included in the latest meta-analysis rely on very high dosages of pharmaceutical-grade, synthetic forms of supplements manufactured by the pharmaceutical industry. The dosages used are typically much greater than those recommended on the labels of food or dietary supplement products. In most countries, the dosages used in the trials would be considered 'medicinal' by regulatory authorities and therefore would not legally be allowed for food or dietary supplements.
7. **Two bites at the cherry.** The anti-vitamin lobby has managed to benefit, yet again, from more anti-vitamin headlines, just by republishing the same study on previous studies – again! Bjelakovic's latest assault, published today through the Cochrane Review system, is more or less a dead ringer for a paper by the very same authors, published last year (28 February 2007) in the *Journal of the American Medical Association* (JAMA). Extensive international media followed the 2007 JAMA paper, including a front page article in the *Times* newspaper, which told consumers that vitamin pills could cause early death. Today's Cochrane review relies on 67 studies rather than the 68 used in the JAMA paper. In evaluating studies for inclusion, the authors omitted a massive 405 potentially eligible studies BECAUSE there were no deaths in the studies!! Another 69 studies were excluded because they weren't randomised controlled trials! Most of the trials used pertain to already sick people being given very high dose, synthetic, isolated nutrients for relatively short periods – they therefore have no relevance to the vast majority of vitamin consumers!

Vitamin consumers are smart

The authors, the editorial boards of the journals that so readily accommodate the papers, as well as the media which then spin the findings, appear unable to bear the thought that consumers know what they are doing.

They forget the power of experience and observation, and that so many people taking these products have experienced startling, positive results. If you read a headline in a newspaper relaying some anti-vitamin hype from an anti-supplement research group in Denmark and you, and your friends and family around you, have all experienced positive results with supplements, would you stop taking your supplements?

Have they forgotten the significance of the countless findings from observational and epidemiological studies, which demonstrate strong correlations between high intakes of natural sources of nutrients and substantially reduced risks of chronic disease?

Do they not realise that their failure to duplicate these results with synthetic vitamins might be more down to the differences between natural and synthetic, as well as the non-applicability of their methods, rather than the fact that their meta-analyses have now disproven what has been observed scientifically over decades?!

They forget, it seems, that most people are already, or are fast becoming, disillusioned with evidence-based medicine (EBM), which is now generally agreed, scientifically, to be the third or fourth leading cause of death in western societies.

‘Evidence-based medicine’ is becoming irrelevant

It seems also that more and more people no longer wish to worship at the altar of EBM, the most important component of which is the randomised clinical trial (RCT). RCTs, the gold standard for EBM, fail, for reasons that are becoming increasingly clear, to amply demonstrate or help elucidate the complex responses that humans show when they choose to engage in natural systems of healthcare.

Science is able to answer many questions, but not when its tools are used either by those with narrowed minds or those with an insatiable desire to control healthcare through the use of patented drugs based on new-to-nature molecules.

Cochrane – what are you playing at?

It has to be asked what the Cochrane Collaboration is doing, allowing, endorsing and indeed promoting unscientific, invalid rehashes such as this. They did it for Bjelakovic’s 2004 paper in the *Lancet*, and they’ve done again it for his 2007 paper in *JAMA*. Might they now be under the influence of the most potent force in orthodox healthcare – the drug companies? You may recall that Cochrane were supposed to be the only guys you really could trust....

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** Paper on which latest Cochrane review is based; negative findings created wide media interest

* Paper which created extensive media interest and formed basis of Cochrane review published in the same month.