

**Do antioxidants actually increase your risk of cancer?** That's what you'll hear from many doctors, health magazines and web sites. It has been repeated so many times from so many sources over the past few years that it just has to be true - or is it?

Is it possibly just another one of those "urban legends"? Perhaps it would be useful to investigate where those "facts" came from. The source of this viewpoint is a meta-analysis of 66 antioxidant clinical trials published in 2007 by Bjelakovic et al in the American Journal of Clinical Nutrition (297: 842-857).

Their data suggested that consumption of extra vitamins A, E and beta-carotene increased cancer risk by up to 16%. That sounds impressive. Case closed you might be tempted to say.

But, a meta-analysis is only as good as the study design and many scientists criticized the design of this study because it excluded over 400 clinical trials from the data set because no deaths were reported in those trials. Only trials with a significant number of deaths were included.

**In other words, the trials most likely to show benefits from antioxidant supplementation were excluded, while the trials most likely to show detrimental effects of antioxidant supplements were included.**

The study by Bjelakovic et al was also criticized because they did not report the actual number of studies that had negative outcomes (increased cancer mortality)

So another group of scientific experts re-analyzed the data from those clinical trials (Biesalski et al, Nutrients, 2: 929-949, 2010).

Their meta-analysis showed that 36% of the antioxidant clinical trials had a beneficial outcome, 60% showed no effect of supplementation and only 4% had a negative outcome.

**So all of dire warnings that you are hearing about the dangers of antioxidant supplements are based on only 4% of the 66 clinical trials analyzed in that 2007 meta- analysis - and that doesn't even include another 400 clinical trials in which no deaths occurred.**

But, that's not all!

Just this past month the data were published from a very large clinical trial in Europe (Li et al, European Journal of Nutrition, doi: 10.1007/s00394-011-0224-1).

In this study 23,943 adults from Germany were followed for a total of 11 years.

Those participants who were consuming antioxidant supplements at the beginning of the study had a 48% decrease in cancer mortality and a 42% decrease in all cause mortality compared to those who were taking no supplement.

So what is the take home message for you?

I, like most other reputable scientists, am not yet ready to promise you that antioxidant supplements will decrease your cancer risk. However, I think you can pretty much forget this nonsense about antioxidant supplements increasing your cancer risk.

And this is another of several recent studies suggesting that consuming supplements on a regular basis just may have some substantial long term health benefits.

To Your Health! Dr. Stephen Chaney