

You've seen the headlines. **"Folic Acid Supplements May Increase Colon Cancer Risk in People Over 50" and "Folic Acid Supplements May Increase Prostate Cancer Risk in Men"**.

And I've seen articles telling people over 50 that they should take their multivitamin tablets every other day to avoid getting too much folic acid. Similarly, I've heard of doctors telling their male patients to avoid any supplements containing folic acid.

So what is the truth?

Perhaps a bit of historical perspective is in order. A number of population studies had suggested that high intakes of folic acid might protect against cancer, especially colon cancer, so several placebo controlled clinical studies were initiated to test that hypothesis.

Those studies had mixed results, with some suggesting that folic acid might be protective and others suggesting that it had no effect. **None of those studies suggested that folic acid supplementation increased the risk of any kind of cancer.**

However, when a single clinical study was published in 2007 suggesting that folic acid supplementation might increase the risk of colon and prostate cancer, it grabbed the headlines in spite of all the previous studies showing no increased risk. And, when a small meta-analysis that included some, but not all, published clinical studies suggested an increased risk of prostate cancer, some experts went as far as to suggest that men should completely avoid supplements with folic acid.

Again, let me put this into perspective. **Any good scientist knows not to trust a single clinical study.** Individual clinical studies often provide misleading results. Sometimes it is possible to pinpoint the cause. For example, the study may have been poorly designed, may have included a non-representative population group, or the statistical analysis may have been incorrect. But, sometimes we never know why an individual clinical study came to the wrong conclusion. **That is why good scientists generally say that more studies are needed and base their recommendation on the preponderance of many studies rather than a single study.**

Even meta-analyses can be misleading if they only examine a small sub-set of clinical studies because they can be unduly influenced by a single misleading clinical study.

So in order to resolve this issue once a for all, a group from Oxford University (Clarke et al, The Lancet, doi: 10.1016/S0140-6736(12)62001-7) did a meta- analysis of every study published by 2010 that compared folic acid supplementation to a placebo, lasted at least 1 year, included at least 500 people and recorded cancer incidence - some 13 studies with over 50,000 participants.

The results were clear cut. Folic acid supplementation did not increase the overall cancer risk, and when the incidence of individual cancers was analyzed, folic acid supplementation did not increase the risk of developing colon cancer, prostate cancer, lung cancer, breast cancer or any other site-specific cancer.

To put this in perspective the average dose of folic acid used in these clinical studies was 2 mg/day, which is 5 times the RDA and 5 times the dose in most supplements. And one of the clinical trials used 40 mg/day, which is 100 times the dose in most supplements.

Like any good scientist I am aware that future studies could change our understanding, but for now I am confident in saying that there is no credible evidence that folic acid supplementation increases your risk of any kind of cancer.

If the science changes, I will be among the first to let you know. But it will be really interesting to see how long it takes all those web sites, blogs and so-called "experts" to acknowledge that the science has changed and they should stop issuing false warnings about folic acid supplementation.

To Your Health!
Dr. Stephen G Chaney