

Folate and Cancer?

A recent article in *JAMA* is raising concern about **high-dose folate** intake:

Ebbing M, Bønaa KH, Nygård O, Arnesen E, Ueland PM, Nordrehaug JE, Rasmussen K, Njølstad I, Refsum H, Nilsen DW, Tverdal A, Meyer K, Vollset SE. Cancer Incidence and Mortality After Treatment With Folic Acid and Vitamin B₁₂. *JAMA*, 2009; 302(19): 2119-2126.

Below is PERQUE's response to the study

1. High-dose pharmaceutical grade folate as part of balanced B complex supplementation is associated with reduction in cancer risk in over 200 studies in *Index Medicus*¹

In contrast, food-grade folate as an isolated substance used in food fortification may be a two-edged sword..., reducing spina bifida and heart disease while increasing cancer risk in some people.

The difference between food-grade supplements and pharmaceutical grade is like night and day in purity, bioavailability and contamination.

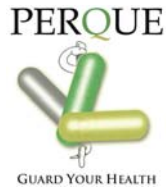
2. Lack of folate is clearly associated with impaired methylation of DNA and RNA with associated p53 and other acquired gene defects. It is possible for high-dose folate to have a similar albeit paradoxical effect. Given the physiologic range of folate need in people, it is unlikely that the toxic dose (TD) had been reached in this study as it is likely in the 500 mg./day range. Such high doses have been used in DOD experiments¹ with remarkably benign outcomes when high-purity supplements are given.

3. This is very much like the d-alpha tocopherol story. An isolated form of vitamins E that does not benefit the heart at all and which dilutes gamma-tocopherol when given in large amounts is clearly unhelpful². In contrast, the 3600 IU/day of mixed natural vitamins E given by the Shute brothers³ in Canada over three decades demonstrated dramatic reductions in cardiovascular diseases. It has long been known that nutrients work best in combination. The study used folate

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as a drug, gave it alone and with B12. Imbalanced Bs was warned about in the 1950s by Adelle Davis³ among others.

4. People with deficits in antioxidants may be subject to these antioxidants becoming oxidized and transformed into anti-nutrients. This is very true for folate.

PERQUE products like **Vessel Health Guard** provide folate and other B vitamins in the balance required for maintaining optimum health.

References

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2. Personal communication, Professor P Deuster, USUHS, 11/18/2009.
3. Devaraj S, Jialal I. Failure of vitamin E in clinical trials: Is gamma-tocopherol the answer? *Nutr Rev*. 2005 Aug;63(8):290-3.
4. Shute E, Shute JCM. *The Vitamin E Story*. Forward by Linus Pauling. Burlington, Ontario: Welch Publishing, 1985, 219 pages (softcover). ISBN 0-920413-04-8.
5. Davis A. *Let's Eat Right to Keep Fit*. (c 1954, 1966, 1970), Harcourt, Brace, Jovanovich; New American Library; Signet Books; Penguin Group.

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