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## Multivitamin Use and Risk of Prostate Cancer in the National Institutes of Health-AARP Diet and Health Study

J Natl Cancer Inst 2007 Vol .99: 754-64

- Overall the researchers found no link between multivitamin use and prostate cancer risk. Only when they stratified the data by comparing “excessive use” (defined as greater than 7X per week) vs. no use with the outcome being advanced prostate cancer did they observe a significant positive association. The definition of “excessive use” must be questioned, since the survey the researchers used asked if subjects used multivitamins from ‘never’ up to ‘every day’. As there are only 7 days in a week, it’s not clear how the researchers derived a value for ‘greater than 7X per week’.
- The observed associations for some individual nutrients must be questioned. These findings were based on subjects’ recall of supplement use over the past 12 months – a considerable period of time for accurate recall.
- No information was collected or analyzed vis-à-vis nutrient dose or duration of use; the absence of time-course or dose-ranging data weakens any notion of causality.
- Most importantly, those at high risk for advanced prostate cancer (i.e. early diagnosis, family history, etc...) are more likely to exhibit certain self-selected behaviors in an attempt to intervene in their situation, including increasing their use of alternative therapies (like taking more supplements), and proactively seeking care (such as more frequent screening). Likewise, supplement users tend to exhibit aspects of a healthy lifestyle, such as more frequent visits to their physician, which can lead to more screening and early detection. Indeed, the authors acknowledge these as a major confounder, and when they controlled for this in their analysis, the association disappeared.
- There is a strong influence of family history on the risk for all cancers, and prostate cancer may also increase in men who have a family history of breast cancer. Other potential risk factors of this nature were not accounted for in the study.
- This study adds little to the evidence base for the use of multivitamins by the general population to maintain health. It does suggest however, that those individuals who are at high risk for or have been diagnosed with prostate cancer should be in close contact with their healthcare professional to determine what the best course of action is for them.

Signed on behalf of the IADSA Scientific Group:

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May 2007.