

Does selenium prevent cancer? It may depend on which form people take

March 16 2011

Scientists are reporting that the controversy surrounding whether selenium can fight cancer in humans might come down to which form of the essential micronutrient people take. It turns out that not all "seleniums" are the same — the researchers found that one type of selenium supplement may produce a possible cancer-preventing substance more efficiently than another form of selenium in human cancer cells. Their study appears in the ACS' journal *Biochemistry*.

Hugh Harris and colleagues note that although the Nutritional Prevention of Cancer clinical trial showed that selenium reduced the risk of cancer, a later study called the Selenium and Vitamin E Cancer Prevention Trial did not show a benefit. A major difference between the trials was the form of selenium that was used. To find out whether different types of selenium have different chemopreventive properties, the researchers studied how two forms—SeMet and MeSeCys—are processed in human [lung cancer](#) cells.

The researchers found that MeSeCys killed more lung cancer cells than SeMet did. Also, lung [cancer](#) cells treated with MeSeCys processed the selenium differently than cells treated with SeMet. They say that these findings could explain why studies on the health benefits of [selenium](#) sometimes have conflicting results.

Provided by American Chemical Society

Citation: Does selenium prevent cancer? It may depend on which form people take (2011, March 16) retrieved 2 May 2024 from <https://phys.org/news/2011-03-selenium-cancer-people.html>

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