



## Insufficient evidence for selenium preventing cancer

### Clinical question

How effective is selenium in preventing cancer?

### Bottom line

The trials with the most reliable results found that organic selenium did not prevent prostate cancer in men and increased the risk of non-melanoma skin cancer in women and men. Other trials found a decrease in liver cancer cases among participants using selenium salt or organic supplements. However, due to methodological shortcomings, this evidence was less convincing. Overall, there is no convincing evidence that selenium supplements can prevent cancer in men, women or children.

### Caveat

Despite evidence for an inverse association between selenium exposure and the risk of some types of cancer, these results should be interpreted with care due to the potential limiting factors of heterogeneity and the influences of unknown biases, confounding and effect modification. Concerns have been raised about possible toxicities from long-term intake of supplemental selenium.

### Context

Selenium is a trace element essential to humans. Higher selenium exposure and selenium supplements have been suggested to protect against several types of cancers.

### Cochrane Systematic Review

Dennert G et al. Selenium for preventing cancer.

Cochrane Reviews, 2011, Issue 5. Art. No.: CD005195.

DOI: 10.1002/14651858. CD005195.pub2.

*This review contains 55 studies involving more than 1 million participants.*

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