

The results of a new meta-analysis indicate an association between improved survival among women with breast cancer who have a higher intake of vitamin C from supplements or food.

Higher vitamin C intake is associated with a reduced risk of breast cancer mortality

Previous studies have linked the intake of vitamin C to an increase in breast cancer survival rates, but results have not always been consistent. In a new study published online in the *European Journal of Cancer*, Swedish researchers summarized results from several prospective studies to determine whether there is an association between vitamin C intakes and the risk of breast cancer mortality.

The current meta-analysis identified ten studies that included 17,696 women who were diagnosed with breast cancer. The studies examined the effect of dietary vitamin C intake or supplementing with vitamin C following breast cancer diagnosis.

When the studies that reported the effects of vitamin C supplements were evaluated, their use was associated with a 19% lower risk of total mortality and a 15% lower risk of dying from breast cancer in comparison with no use. When analyzing vitamin C intake from foods, researchers observed that for every 100mg per day increase in dietary vitamin C there was 27% decrease in total mortality and 22% decrease in breast cancer-specific mortality. Based on the limited results of these studies, there were no clear detrimental effects of vitamin C when taken during chemotherapy or radiation treatments.

Results from this meta-analysis indicate that vitamin C supplement use after breast cancer diagnosis is associated with a reduction in total mortality and breast cancer-specific mortality. More studies on post diagnosis supplementation should be done to confirm these results and further our understanding of how their use during radiation or chemotherapy may influence breast cancer outcomes.

Holly R. Harris, Nicola Orsini, Alicja Wolk. Vitamin C and survival among women with breast cancer: A Meta-analysis. *Eur J Cancer*. 2014 Mar 7. pii: S0959-8049(14)00175-0.