

A recently published meta-analysis indicates that low Vitamin D levels may increase the risk of breast cancer recurrence and death in women with early stage breast cancer.

High vitamin D levels reduce risk of recurrence and death from early stage breast cancer

Previous research has indicated that vitamin D may play a role in regulating expression of genes important in development and progression of breast cancer. A recent research review published online in Breast Cancer Research and Treatment reports an association between higher blood levels of vitamin D and an improved health outcome for women with early stage breast cancer.

The meta-analysis included eight studies involving 5,691 women diagnosed with breast cancer between 1973 and 2010. On average, blood samples were taken within 3 months of diagnosis and before any treatment. Vitamin D deficiency was found in 38.6% of the study subjects.

Women who were considered vitamin D deficient were more than twice as likely to have a recurrence of breast cancer than those with the highest vitamin D levels. When compared to those classified with high vitamin D levels, the women with the lowest vitamin D levels also had a 76% higher risk of death.

Although this is an observational study, the results support a possible association between low vitamin D levels and an increased risk of recurrence and death in early stage breast cancer patients. The proposed mechanism is related to the role of vitamin D in altering the transcription and expression of genes that help inhibit the development and progression of breast cancer.

April A. N. Rose et al. Blood levels of vitamin D and early stage breast cancer prognosis: a systematic review and meta-analysis. Breast Cancer Research and Treatment 10.1007/s10549-013-2713-9.