

# The Harvard Medical School Inspired Venture in Breast Cancer Research

## DIETARY ANTIOXIDANT SUPPLEMENTATION



### DURING RADIATION THERAPY at Harvard Medical School's Osher Institute



### The Role of Antioxidants

Many health conscious people take antioxidant supplements.  
Ordinarily, antioxidants improve health.  
However, it is possible that antioxidants might be harmful in one situation.  
When a patient is undergoing radiation therapy for breast cancer,  
the radiation kills the rapidly dividing cancer cells by damaging the DNA.  
Antioxidants work to repair the DNA.  
Should breast cancer patients undergoing radiation therapy  
take antioxidant supplements?

### Aims of the Research Study

1. Test two common antioxidants, Vitamin E and epigallocatechin gallate (the main ingredient in green tea) to see if they hinder radiation therapy in breast cancer
2. Focus on the cure of tumors, as prior studies focused only on delay of tumor growth

### Expected Outcomes

1. An answer as to whether or not dietary antioxidants alter the ability of radiation therapy to eliminate tumors, at both the cellular and whole tumor levels
2. Research results needed to guide breast cancer patients in the use of antioxidants during radiation therapy

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