

Dietary supplements discouraged for prostate cancer patients

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Prostate-specific dietary supplements should not be taken during radiation therapy treatments because they have been shown to increase the radiosensitivity of normal prostate cell lines, leading to normal tissue complications, according to a study in the March issue of the *International Journal of Radiation Oncology*Biology*Physics*, the official journal of the American Society for Radiation Oncology (ASTRO).

Many prostate cancer patients choose to take nutritional supplements to improve or increase sexual potency and alleviate symptoms associated with poor prostate health. Some studies show that about half of prostate cancer patients use an herbal or dietary supplement and most do so without discussing it with their doctor.

Researchers at William Beaumont Hospital in Royal Oak, Mich., sought to determine if three widely used commercial prostate-specific dietary supplements changed the radiosensitivity of normal prostate and/or androgen-positive and -negative prostate tumor cell lines. There have been published reports of negative clinical effects for some tumor sites from the use of certain dietary supplements after chemotherapy, but the effect of dietary supplements on radiation therapy treatments is not well-known.

The study authors found that the cell growth and radiosensitivity of the malignant tumor cells were not affected by any of the supplements, but two of the supplements inhibited the growth rate of the normal prostate



cell lines while a third supplement also increased the cellular radiosensitivity of some normal cell lines by inhibiting <u>DNA repair</u>.

"Cancer patients turn to supplements to aid in their treatments for a variety of reasons, but this study proves that what some patients believe is helping them may actually be harming them," Brian Marples, Ph.D., senior author of the study and a radiobiologist at William Beaumont Hospital and clinical research professor at Oakland University William Beaumont School of Medicine, said. "It is very important for all patients to discuss any type of supplement they may be taking with their physician and especially important for prostate cancer patients receiving radiation therapy as this study shows that it may be negatively affecting the effectiveness of their treatments."

Provided by American Society for Radiation Oncology

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