

IGRT may improve outcomes for obese prostate cancer patients

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Moderately to severely obese prostate cancer patients may have improved treatment outcomes when treated with image-guided radiation therapy (IGRT) over traditional external beam radiation therapy (EBRT) because IGRT corrects for prostate shifts, which, if not planned for, can lead to incorrect doses of radiation to the disease site, according to a study in the September 1 issue of the *International Journal of Radiation Oncology*Biophysics*Physics*, the official journal of the American Society for Radiation Oncology (ASTRO).

Several studies have suggested that obesity can lead to higher rates of clinical recurrence or biochemical failure rates in prostate cancer patients receiving EBRT. Researchers at the Carol G. Simon Cancer Center, Morristown Memorial Hospital in Morristown, N.J., and the Uematsu-Atsuchi-Serendipity Oncology Center in Terukuni, Kagoshima, Japan, sought to determine if these failure rates were caused by the treatment modality used rather than strictly the fact that the patients were obese.

Researchers found that moderately to severely obese prostate cancer patients (i.e., with a [body mass index](#) of greater than 35) do have larger prostate shifts during treatment, which can lead to radiation treatments not being delivered to the same spot every day, potentially compromising the treatment. The percentage of moderately to severely obese patients with a left to right shift of greater than 10 millimeters was 21.2 percent compared to only 1.3 percent for patients of a normal weight.

IGRT is a new type of [radiation therapy](#) that uses normal EBRT guided by imaging, such as CT scans, ultrasound or X-rays taken in the treatment room just before the patient is given radiation on a daily basis. All patients receive imaging scans as part of the planning process. However with IGRT, doctors are able to compare the earlier images with those taken before each treatment to adjust the dose if necessary.

Researchers determined that the radiation treatment modality used does impact outcomes. IGRT allows for correction of target displacements from the planned position before radiation delivery begins, so shifts may be corrected easily and thus may lead to improved control rates for obese [prostate cancer](#) patients.

"All patients deserve the treatment that is going to give them the best chance at cure and survival," James R. Wong, M.D., lead author of the study and chair of radiation oncology at Morristown Memorial Hospital, said. "With the results of this study, we now know that obese patients have a unique complication when it comes to planning their treatment but that we can try to correct it simply by using IGRT instead of EBRT. I encourage overweight men and their families to talk to their doctors about IGRT when considering their treatment options."

Source: American Society for [Radiation](#) Oncology

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