

## External-Beam Radiation Therapy Has More Side Effects and is Costlier Than Other Common Prostate Cancer Treatments

A recent analysis of information from more than 100,000 men with prostate cancer shows that external-beam radiation therapy causes more long-term side effects and is more expensive than prostatectomy (removal of the prostate during surgery) or brachytherapy. Radiation therapy is the use of high-energy x-rays or other particles to kill cancer cells. External-beam radiation therapy is given from a machine outside the body. It involves several weekly visits to the doctor's office or hospital to receive treatment. Brachytherapy, also called internal radiation therapy, for prostate cancer is when radioactive implants (called seeds) are placed directly in the prostate.

In this study, researchers used the Surveillance, Epidemiology, and End Results (SEER)-Medicare database to compare the treatment-related side effects of prostatectomy, brachytherapy, and external-beam radiation therapy for men older than 65 with prostate cancer. Because this database also provides information on the cost of treatment, researchers were also able to calculate the differences in cost between the three treatments, including the costs of treatment-related side effects.

The researchers found that a little more than 7% of men who received external-beam radiation therapy experienced side effects, such as narrowing of the urethra and bleeding in the bladder, compared with a little less than 7% of men who received a prostatectomy and about 3% of men who had brachytherapy. In addition, men who had external-beam radiation therapy were much more likely to experience gastrointestinal side effects, such as bleeding from the rectum. The researchers also found that external-beam radiation therapy was more than twice as expensive as brachytherapy or prostatectomy.

### What this means for patients

?This analysis is one of the first to look at the quality of life and financial costs of these three very common prostate cancer treatments for more than five years after treatment,? said lead author Jay Ciezki, MD, Staff Physician at the Cleveland Clinic. ?While there are clearly still some men with high-risk prostate cancer who will benefit from external beam radiotherapy, for many patients diagnosed with low- and intermediate-risk disease, brachytherapy or prostatectomy may be even better options than previously assumed.? The results of this study show that prostatectomy or brachytherapy can help improve a man's quality of life by reducing the treatment side effects, the number of visits to the doctor to receive treatment, and the cost.

### Questions to Ask Your Doctor

- What type of prostate cancer do I have? What is the stage?
- What are my treatment options?
- Which treatment plan do you recommend? Why?
- What are the short-term and long-term side effects of this treatment?
- Would radiation therapy be a part of my treatment plan? What type of radiation therapy would be used?
- If I'm worried about managing the costs related to my cancer care, who can help me with these concerns?

### For More Information

[Guide to Prostate Cancer](#) [1]

[Understanding Radiation Therapy](#) [2]

[Side Effects of Radiation Therapy](#) [3]

[Late Effects](#) [4]

[Managing the Cost of Care](#) [5]

**Links:**

- [1] <http://www.cancer.net/node/19562>
- [2] <http://www.cancer.net/node/24728>
- [3] <http://www.cancer.net/node/24677>
- [4] <http://www.cancer.net/node/25396>
- [5] <http://www.cancer.net/node/24865>