

## What is a Seed Implant?



A prostate radiation seed implant is a form of brachytherapy. It is a treatment where radioactive sources are placed inside or close to a tumor. For a prostate implant, the physician inserts radioactive seeds into the prostate where a prescribed dose of radiation is delivered to kill the tumor cells. This procedure provides the most optimized treatment, maximizes radiation doses to the prostatic cancerous tissue and minimizes dosage to spare other nearby healthy organs.

This treatment is proven to be very effective for localized prostate cancer, with limited side effects.

### Advantages

- Minimally invasive treatment.
- Outpatient procedure.
- Minimal recovery time.
- Little-to-no impact on activity level and lifestyle of patient.



### Advanced Treatment Option:

Seed implants deliver highly targeted radiation that reduces treatment times, are highly accurate and are best at targeting the tumor. Using real-time, image-guided planning and delivery technology, our team of experienced experts offer this highly effective treatment option for fighting prostate cancer.

Speak to your primary care physician, urologist or contact the Cone Health Cancer Center for more information about the best treatment options for treating prostate cancer.



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\*based on number of annual seed implants

## PROSTATE CANCER

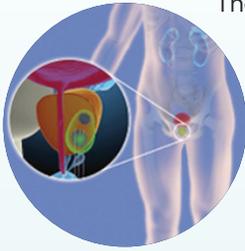
Advanced Treatment Option:

# Prostate Radiation Seed Implantation

**Nationally-Leading Brachytherapy Center\***



## How is the Seed Implant Performed?



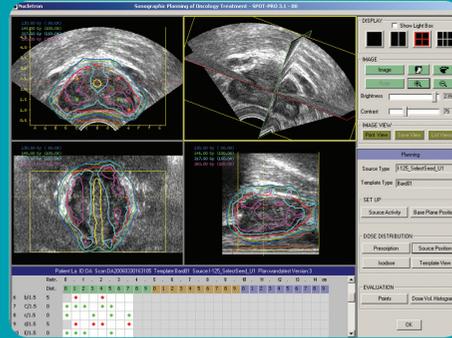
The procedure is performed at the accredited Wesley Long Hospital in one of its state-of-the-art operating rooms set up for brachytherapy. The patient undergoes general anesthesia to ensure no discomfort. A catheter is then inserted into the bladder.



The patient is placed on his back, knees bent and his feet in stirrups (holders). Using a transrectal ultrasound (TRUS), the prostate gland is identified. The TRUS provides three-dimensional images

and the ability for a customized optimal pattern of seed placement using real-time live planning. This is accomplished by the specialized radiation oncologist, radiation dosimetrist and physicist working together using sophisticated computer technology. A needle guidance template is fixed to the ultrasound unit and the urologist carefully inserts needles through the skin into the prostate. These needles are used to deliver rice-sized radioactive seeds. The seeds are

automatically implanted into the prostate using an innovative robotic delivery system as the needle is retracted and removed. The number of seeds and needles can vary depending on the prescribed treatment and the size of the prostate gland.



Ultrasound is continuously used to verify the position of the needles allowing the physician to precisely place the radioactive seeds. The medical team will compare the needle position in real-time with the original plan and make any adjustments during surgery using the software to guide them.

After the seeds are placed into the prostate, the needles are removed and the treated area is dressed before the patient wakes up from anesthesia and moved into post-surgical recovery. The urologist looks into the urethra and bladder and an X-ray is performed to ensure that all seeds are properly positioned. The procedure does not involve any cutting or sewing, so there is no wound to heal. The seeds are permanent, allowing the dose to be delivered over a period of time. Follow-up care is required to review progress.

The implant operation itself is a relatively short procedure. After a short recovery time, normal activities can resume for the patient. A few guidelines are given to help the patient transition after the procedure.

## Does Physician Experience Matter?

Clinical research suggests that the quality of seed implants is directly related to the level of experience of the clinicians. Cone Health is one of the top oncology centers in the nation using this advanced technology.



The program started in 1993 with a partnership between Cone Health and its radiation oncology team with physicians at Alliance Urology. Since its introduction, over 2,200 seed implants have been performed, and continuous updates and improvements on techniques and processes have occurred. As advancements are made, Cone Health will continue its research and development to offer patients the latest innovations and treatment options, and thus continuing its leadership in prostate cancer treatment.

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