



## Information and Answers



**Bard:** Prostate Cancer Treatment

### Prostate Cancer Treatment

Information and Answers





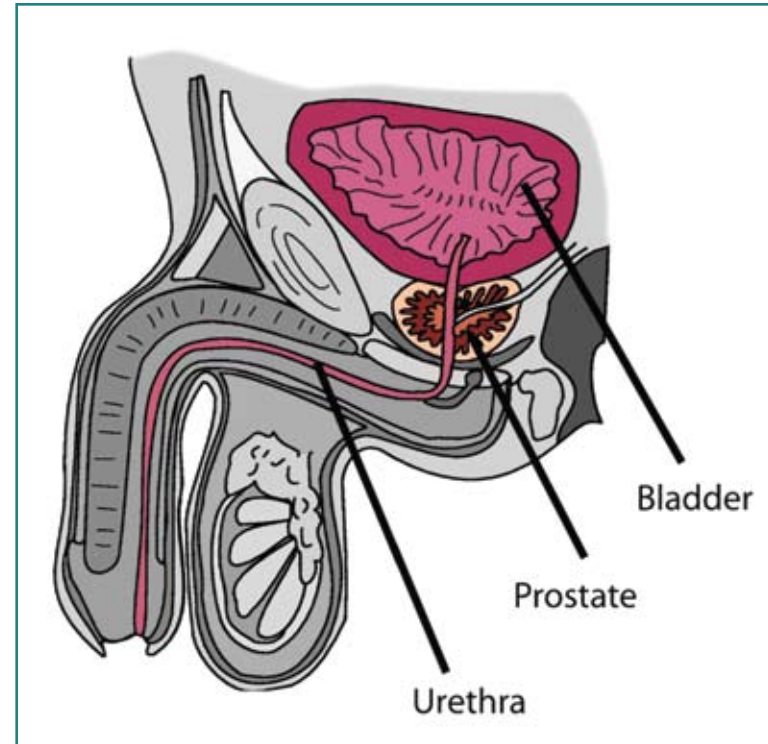
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### *A Brief Overview*

#### Prostate Anatomy

The prostate gland, approximately the size of a large walnut, is located behind the base of the penis, above the rectum and below the bladder. Its purpose is to secrete components of semen.

Although prostate cancer is the second leading cause of death in men, if caught in the early stages, the 5-year survival rate is extremely good. As a result, significant research has been done into new and more innovative ways to diagnose and treat this disease.





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### Prostate Cancer Staging

Prostate cancer tumors are staged to determine how far the cancer has spread.

**Stage T1** is prostate cancer in its earliest stage. Cancer is confined to the prostate gland and the patient rarely experiences any symptoms of disease.

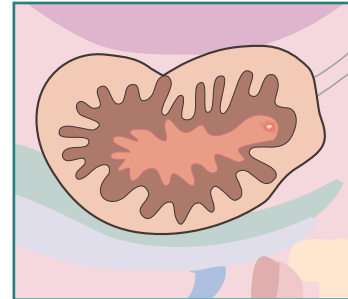
**At Stage T2**, cancer is still localized in the prostate gland and is usually in the form of a small to large, hard nodule.

**A Stage T3** tumor has spread outside the gland to surrounding tissues, such as the seminal vesicles.

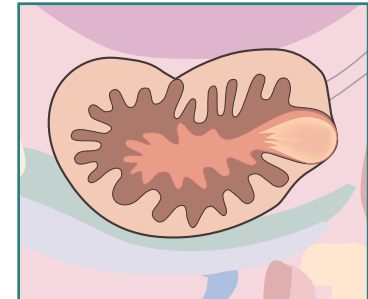
**Stage T4** prostate cancer has spread outside the gland to other tissues and perhaps other organs, such as the bladder or the lungs, liver or bone.



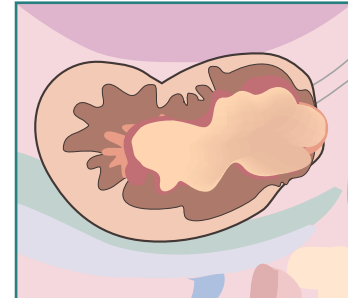
Stage T1



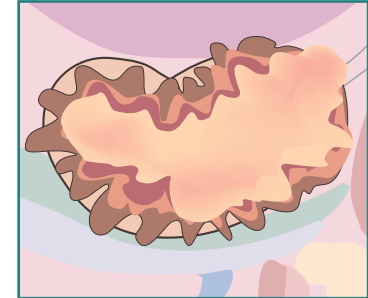
Stage T2



Stage T3



Stage T4



The stage of a cancer is the most important factor in choosing treatment options and predicting a patient's outlook for survival.<sup>1</sup>



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American Cancer Society recommends that when prostate cancer screening is done, both the DRE and PSA blood test should be used.<sup>1</sup>

### PSA Testing

A PSA (Prostate Specific Antigen) test is considered by many physicians to be an important diagnostic tool for detecting the presence of prostate cancer.

When prostate cancer develops, the PSA level usually goes above 4. But it is important to remember that about 15% of men with a PSA below 4 will have prostate cancer on biopsy. If your level is in the borderline range between 4 and 10, you have about a 25% chance of having prostate cancer. If it is more than 10, your chance of having prostate cancer is over 50% and increases more as your PSA level increases.<sup>1</sup>

If your PSA level is high, your doctor may recommend a prostate biopsy to find out if you have cancer.<sup>1</sup>

### Digital Rectal Exam (DRE)

During a DRE, the physician inserts a gloved, lubricated finger into the rectum and examines the prostate for any irregularities in size, shape, and texture. Often, the DRE can be used by urologists to help distinguish between prostate cancer and non-cancerous conditions such as BPH.

### Gleason Scores

The Gleason test is a grading scale that helps the physician determine how likely a patient's cancer may spread. Tissue removed from the prostate during biopsy is examined microscopically and graded. The higher your Gleason score, the more likely it is that your cancer will grow and spread.





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### Current Treatment Options

#### Brachytherapy

Also known as “interstitial radiation,” brachytherapy is the permanent implanting of radioactive “seeds” into the prostate gland. Brachytherapy delivers a prescribed dose of radiation directly to the cancer cells. There is only limited radiation to surrounding tissues such as the urethra and rectum. The seeds are usually permanently implanted and the radiation dissipates over time. Brachytherapy may be used alone or in combination with external beam radiation and/or hormonal therapy. Generally, it is an outpatient procedure. Some patients experience inability to maintain an erection (impotence), loss of bladder control (incontinence), and narrowing of the urethra (urethral strictures).

#### Surgery

Radical prostatectomy is the surgical removal of the prostate gland and it typically involves a hospital stay of several days. The two most common side effects of this surgery are loss of bladder control (incontinence) and the inability to maintain an erection (impotence).

#### External Radiation

This treatment involves the use of high-energy X-rays directed from outside the body at the prostate gland, and normally requires treatment 5 days per week for 6 to 8 weeks. Side effects may include problems with urination and impotence, as well as injury to the bowel.

#### Hormone Therapy

Hormones are administered to lower the levels of testosterone (male hormone) which slows the growth of cancerous cells over a period of time. Under certain circumstances, hormones may be used in combination with brachytherapy to shrink the prostate and the tumor.

#### Watchful Waiting

Since many prostate cancers are slow-growing, a physician may recommend close observation for a period of time without any active treatment, during which the tumor's progress is carefully monitored.



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### Pre-Implant

Before you undergo the seed implant procedure, your physician may schedule a series of pre-op tests, such as blood tests and a chest X-ray. In addition, you will be given an ultrasound test designed to measure the size, shape and location of your prostate. This test provides a “map” which helps determine how many seeds will be needed (usually between 60 and 120).



### Procedure Overview

The Real-Time Method of brachytherapy is typically done on an outpatient basis. The length of the average procedure is about one to one-and-a-half hours. Just before the seed implantation, another ultrasound image is taken of your prostate to complete the planning process and to ensure that the seeds will be placed where they are needed.

You will probably receive general or spinal anesthesia to ensure that you will have no discomfort during the procedure.

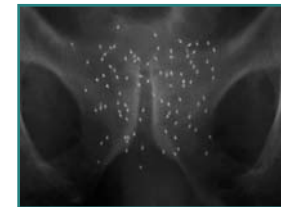
During the procedure, an ultrasound probe is positioned inside the rectum to make the prostate visible on a

monitor and permit the team of doctors to view the placement of each seed. Needles are inserted through the skin between the scrotum and rectum, and the seeds are placed into the prostate.



### Post Implant

After the procedure, you will be taken to the recovery room until the effects of the anesthesia have worn off. Before you leave the hospital, you will receive specific instructions and precautions and, in some cases, your doctor may prescribe an antibiotic. Your physician may advise that you avoid strenuous types of activity for the first few days after the procedure, but you should be able to resume your normal routine within a matter of days.



*X-ray image of seed placement*

Once all seeds have been implanted, your doctors will verify on the X-ray monitor that the seeds have been placed accurately.



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### Prostate Cancer Facts

The American Cancer Society estimates that during **2007** about **218,890** new cases will be diagnosed in the US,<sup>1</sup>

**1 in 6** men will be diagnosed during his lifetime, but only **1 in 34** will die of it.<sup>1</sup>

The death rate for prostate cancer is going down, and the disease is being found earlier as well.<sup>1</sup>

**African American** men have the **highest rate** of prostate cancer in the world. In fact, the incidence rate for African American men is 60% higher than in white males.<sup>1</sup>

**If detected early, prostate cancer is often treatable.**



### Information Resources

Consult the following resources to learn more about prostate cancer and what is being done to diagnose and treat the disease more effectively:

*“The Prostate Cancer Treatment Book”*, Peter D. Grimm, D.O.; John C. Blasko, M.D.; and John E. Sylvester, M.D.  
ISBN: 0-07-142256-0

*“American Cancer Society’s Complete Guide to Prostate Cancer”*, David G. Bostwick, MD, MBA; E. David Crawford, MD; Celestia S. Higano, MD; Mack Roach III, MD  
ISBN: 0-944235-54-9

*“Seeds of Hope”*, Michael A. Dorso, M.D.  
ISBN: 0-9774449-1-0

*“Surviving Prostate Cancer Without Surgery”*, Michael J. Dattoli, M.D.; Jennifer Cash, ARNP, MS, OCN; Don Kaltenbach, Prostate Cancer Survivor  
ISBN: 0964008882



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### Support Groups

#### US TOO International, Inc.

5003 Fairview Avenue  
Downers Grove, IL 60515-5286  
Telephone: 630/795-1002; Fax: 630/795-1602  
Toll-Free Hotline: 800/80-US-TOO (800-808-7866)

#### Man-To-Man

Contact your local American Cancer Society Office or call 1-800-ACS-2345 for more information about this program.

### Web Sites

The American Cancer Society	<a href="http://www.cancer.org">www.cancer.org</a>
National Cancer Institute	<a href="http://www.nci.nih.gov">www.nci.nih.gov</a>
University of Pennsylvania	<a href="http://www.oncolink.upenn.edu">www.oncolink.upenn.edu</a>
Bard Urological	<a href="http://www.bardurological.com/patient">www.bardurological.com/patient</a>

Be sure to discuss all questions thoroughly with your physician. Becoming more knowledgeable about prostate cancer is an important step in your treatment and recovery.

This information has been supplied to help you learn about and choose treatment options. Each option has potential side effects. Your choice should be made after considering your condition, circumstances and goals.

Please consult your physician with any questions or concerns. You may want to review these options with a spouse or family member.



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1American Cancer Society, Cancer Facts and Figures 2007.  
Atlanta, GA: American Cancer Society; 2007 Available at:  
[www.cancer.org](http://www.cancer.org)

