Prostate Cancer - Early Detection is the Key

Prostate cancer is the most commonly diagnosed cancer in men, excluding some skin cancers. Although men any age can get prostate cancer, it is found most often in men over 50. In fact, more than 8 out of 10 men who have prostate cancer are older than 65.

If you have prostate cancer, you are not alone. The American Cancer Society estimates 198,000 new cases of prostate cancer diagnosed in the United States in 2002. Prostate cancer is the second-leading cause of cancer deaths among men, exceeded only by lung cancer. But it is also one of the most treatable cancers if diagnosed early. Early detection provides the opportunity to consider the maximum number of treatment options.

Often there are few, if any, warning signs of early stage prostate cancer. For this reason, the American Cancer Society recommends:

- That men 50 and over have a digital rectal examination (DRE) as part of their regular annual physical checkup.
- That men 50 and over have an annual prostate-specific antigen (PSA) blood test.
- That the following men begin annual PSA blood tests and DREs before age 50:
  - African-Americans - Prostate cancer is about twice as common in African American men as it is among white American men.
  - Men with a family history of prostate cancer - Having a father or brother with prostate cancer doubles a man's risk of developing the disease.

What is the Prostate?
The prostate is a male sex gland. It is about the size of a walnut and is located just below the bladder and in front of the rectum. The prostate surrounds the upper part of the urethra, which is the tube that empties urine from the bladder. The prostate's main function is to produce fluid for semen, which carries sperm.

What is Cancer?
Cancer is a group of many different diseases, but all cancer affects cells, the body's basic unit of life. Normally, cells grow and divide to produce more cells only when the body needs them. If cells keep dividing when new cells are not needed, they form too much tissue. Excess tissue can form a mass, called a tumor. Excess tissue can be benign, or harmless; or malignant, which is cancerous. With malignant tissue, the cancer cells divide out of control and can invade and destroy nearby healthy tissue. Cancer cells can also break away from the tumor they formed and enter the bloodstream and lymphatic system. This is how cancer spreads from the original tumor to form new tumors in other parts of the body. The spread of cancer is called “metastasis.”

What is Prostate Cancer?
Prostate cancer occurs when malignant form in the prostate. They often start at the outer part of the prostate. Most prostate cancers grow very slowly. Autopsies have shown that many elderly men who died of other diseases also had prostate cancer that neither they nor their doctors were aware of. However, some prostate cancers can grow and spread quickly.

Cancer that remains confined to the prostate gland itself is called “localized.” When cancer spreads outside the gland, it most often moves to surrounding tissues or “seminal vesicles” (sac-like structures attached to the prostate). It might also spread to the lymph nodes and eventually other organs throughout the body. The ability of prostate cancer to spread outside the prostate is what makes it such a dangerous threat.

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**About TheraSeed® Implants**

TheraSeed® implants are the leading brachytherapy treatment. They are highly effective – the only seed implants with 9-year independent clinical data (DEVELOPER, NOTE: LINKS TO STUDIES, BLASKO) demonstrating their effectiveness. More than 100,000 men have been treated with TheraSeed implants since their introduction in 1986. TheraSeed® implantation is a minimally invasive, outpatient procedure. Patients typically return to their normal lifestyles within 24-48 hours of treatment. And without the high incidence of complications, including impotence and incontinence, associated with surgery.

**TheraSeed® – the One Proven Seed**

There are two types of brachytherapy (seeding) available to prostate cancer patients today. Palladium-103, the isotope used in TheraSeed® treatment, and Iodine-125.

TheraSeed® implants were developed by Theragenics in 1986. More than 100,000 prostate cancer patients have been treated with TheraSeed® devices. In 2001 alone, an estimated 20,000 patients made TheraSeed® devices their treatment of choice.

TheraSeed® treatment has distinct advantages over its iodine-based predecessor:

- Palladium-103 has an initial dose rate two-to-three times that of Iodine-125 for better control of rapidly dividing cells.
- Palladium-103 has a 17-day half-life as compared to 60 days for Iodine-125. It works quickly, shortening the time patients are subject to bowel and bladder irritation and other side effects.
- TheraSeed® devices remain active for approximately three months as compared to about a year for Iodine-125, shortening the period for potential radiation side effects.

**TheraSeed® – How It Works**

TheraSeed® treatment is typically a 45-minute to one-hour outpatient procedure. Rice-size seeds are injected into the prostate using ultrasound guidance. Thin, hollow needles are inserted through the skin in the perineum area between the scrotum and the rectum. Most patients resume normal activities within 48 hours following TheraSeed® treatment.

Studies show that TheraSeed® devices are an excellent choice for tumors of all Gleason scores and for both aggressive and non-aggressive cancers.

For more information on TheraSeed® implants, order a free patient video or printed brochure. (DEVELOPER, NOTE: LINKS TO “CONTACT US”) © Theragenics Corporation. All rights reserved.

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**I called my urologist and cancelled my surgery. I decided that TheraSeed® was just a better way.**

— Ron Anderson
LIVING PROOF.

More than 100,000 patients over two generations are living proof that TheraSeed treatment can cure cancer. And without the high incidence of debilitating side effects, including incontinence and incompetence, so common with surgery.

Evolution of Treatments

Not too many years ago when a man was diagnosed with prostate cancer, there was only one logical way to deal with it – surgery. Few doctors recommended anything else. But over the last couple of decades other less invasive, less debilitating procedures than radical prostatectomy have been proven themselves effective. Today, the prostate cancer patient has several treatment options to consider.

The Evolution of Prostate Cancer Treatments

| Modern day | Radical prostatectomy
| External beam radiation therapy
| Brachytherapy – Iodine-125 isotope
| Brachytherapy – Palladium-103 isotope |

Dates therapies were introduced and available.

Among treatments currently being used, three are most often employed: traditional surgery (radical prostatectomy), external beam radiation therapy (EBRT) and brachytherapy (seeding). They also represent the spectrum in the evolution of medical science relative to the treatment of prostate cancer. And while the stage of the cancer could dictate a particular therapy or eliminate another, more often than not the patient can make the call. In fact, the patient should be the one to choose his therapy.

Brachytherapy or “Seeding” (TheraSeed®

Surgery (Radical Prostatectomy or “RP”)

External Beam Radiation Therapy (EBRT)

Other treatment options

Brachytherapy (Seeding)

Brachytherapy, or radioactive seed implantation, is a minimally invasive procedure that delivers a highly concentrated, yet confined dose of radiation directly to the prostate cancer cells. The cells are destroyed, and the healthy tissue and organs near the prostate are spared damage from radiation.

Brachytherapy was developed in the early 1900s but was not popular until the mid 1980s when advances in imaging techniques made it possible for physicians to place the seeds with much greater accuracy. These advances, plus the development of data over the past 10 to 15 years showing comparable or better cure rates than radical prostatectomy, have led to a significant increase in the use of brachytherapy.

TheraSeed® implants are the leading brachytherapy treatment. They are highly effective – the only seed implants with 9-year independent clinical data demonstrating their effectiveness. More than 100,000 men have been treated with TheraSeed implants since their introduction in 1996.

>> More information on TheraSeed®

Surgery (Radical Prostatectomy)

The surgical removal of the prostate has been the most commonly applied treatment for more than 40 years. It is used most often in early stage, localized cancers, that is, cancers restricted to the prostate.

Among the types of radical prostatectomies:

• Retropubic: an incision is made in the lower abdomen and the prostate and lymph nodes are removed. Through this approach, it is sometimes possible for the surgeon to avoid removing the nerves that control erections and bladder function.

• Perineal: an incision is made in the skin between the scrotum and the rectum. To remove the lymph nodes, the surgeon makes a separate incision in the abdomen.

A radical prostatectomy is major surgery. It requires a three- to five-day hospital stay and a lengthy recovery period of at least three to six weeks. It is also accompanied by a significant risk of major side effects. A study of cancer registries totaling 1,291 men in six U.S. regions showed that approximately 10 percent were incontinent and 60 percent were impotent 18 or more months following radical prostatectomy. (Stanford, Janet L., et al. Journal of The American Medical Association, Vol. 283, No. 3; January 19, 2000)

External Beam Radiation Therapy (EBRT)

Treating prostate cancer with external beam radiation involves directing a beam of radiation through the body to the prostate gland to destroy the tumorous cells. The therapy typically consists of treatments five days a week for four to six weeks. While hospitalization is not required, the patient visits the hospital for treatments.

Side effects of external beam radiation include incontinence, impotence and rectal complications. Also, the beam of radiation can damage the rectal wall as it passes through. Other possible side effects include fatigue, diarrhea, and frequent and painful urination.

Roland Young
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Three-dimensional conformal radiation therapy is a newer form of external beam radiation. Computers map the location of the cancer and the patient is fitted with a mold resembling a body cast to keep him still so the radiation can be more accurately aimed. A related technique, proton beam radiation therapy, employs proton beams as opposed to X-rays in hopes of reducing damage to the tissues passed through en route to the prostate.

Other Treatment Options

There are several other procedures, or combinations of procedures, being used today to treat prostate cancer.

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- **Hormonal therapy** has been used to treat some men with cancer that has spread to other areas of the body, very elderly patients, or patients in poor health. Hormonal therapy does not rid the body of the cancer; it simply slows the growth and shrinks the prostate gland.

- **Cryosurgery** treats localized prostate cancer by freezing its cells. A metal probe is placed through a skin incision into the prostate. Meanwhile, warm saltwater is circulated through a catheter in the urethra to keep it from freezing. The procedure is usually reserved for men with certain medical conditions that leave them unable to tolerate surgery or radiation therapy. Side effects include incontinence and a high rate of impotency.

- **High dose radiation (HDR) brachytherapy** involves placing several small catheters into the prostate gland. Via a robotic arm, a tiny, highly radioactive pellet is passed through each catheter. HDR usually consists of three, five-minute radiation sessions several hours apart. Because catheters must remain in place between treatments, and the patient must stay in bed throughout the process, the procedure requires an overnight hospital stay.

- **Because prostate cancer usually grows slowly, watchful waiting** is sometimes recommended for very elderly patients or patients in poor health. No treatment is recommended until there are signs of progression. Studies have shown that men who have slow growing cancer, other serious health problems, and life expectancies of less than 10 years are best suited to watchful waiting.

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I was hiking in the mountains with my son less than 2 days after the TheraSeed® procedure. — Dave Ederer