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CANCER OF THE PROSTATE GLAND

Introduction

Cancer of the prostate gland accounts for approximately 11% of all cancer deaths among men in the United States. This rate now exceeds colon and rectal cancer and is second only to lung cancer. Furthermore, as the percentage of older Americans has grown, the death rate from this disease has simultaneously risen; it can be expected that this trend will continue in the future. Since most physicians consider cancers to be most curable when discovered at their earliest possible stages, it is logical that urologists have long sought methods to facilitate the earliest detection of prostate cancer.

Fortunately, prostate cancer detected early is treatable, and the Center for Minimally Invasive Prostate Care at Valley Urological Associates offers a range of treatment options, from the latest breakthrough therapy called high intensity focused ultrasound, or HIFU, as well as traditional surgical removal of the prostate gland, to less invasive procedures including cryosurgery. How the cancer is treated, or if it is treated, is a decision the patient will make in consultation with his physician. At the Center, our goal is to ensure that patients fully understand their medical conditions and the benefits and risks of each treatment option, so that they can make fully informed decisions.

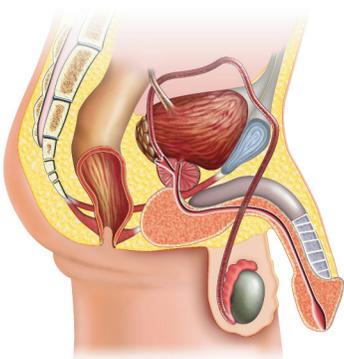


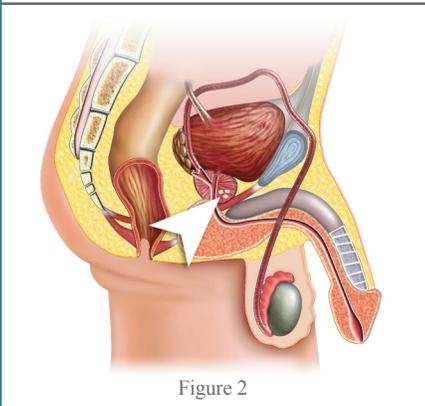
Figure 1

What is the Prostate Gland?

The prostate gland is a walnut-sized structure located at the base of the urinary bladder. The tube that carries urine from the bladder to the outside of the body, the urethra passes directly through the substance of the gland. The prostate is located directly in front of the lower rectum. (See Figure 1.)

The primary purpose of the prostate gland is to produce the fluid called semen, which is mixed with sperm from the testicles; these two materials are discharged or ejaculated during sexual intercourse. >>

Conditions of the Prostate Gland *continued*



Conditions of the Prostate Gland

There are generally three major disturbances that can affect the prostate gland: 1) Infection (prostatitis); 2) Non-cancerous enlargement of the prostate (Benign Prostatic Hyperplasia or BPH); 3) Prostatic cancer.

Most prostatic cancers originate in the outer shell or peripheral zone of the gland. As they grow, they distort the normal tissue and produce a hard lump or “nodule.” (See Figure 2.) The ability of a physician to detect this lump or nodule when the prostate gland is examined by a finger placed within the rectum (the “digital” rectal examination or

DRE) represented for years the primary means for the detection of prostatic cancers. Most men should undergo a yearly digital rectal examination once they have reached the age of 40 years. Furthermore, other common “rectal” studies such as barium enemas and colonoscopies do not always directly examine the prostate gland and therefore should not be considered a substitute for this examination.

However, not all cancers can be appreciated by rectal examination – this is especially true for small tumors and hence other methods of detection have been sought. Over the years, a variety of blood tests have proven only somewhat helpful in detecting this disease. For example, the PSA test has been developed, which greatly expands the ability to help diagnose prostate cancer in its infancy. PSA is the abbreviation for Prostate Specific Antigen.

This material is a protein produced by all types of prostatic tissue, especially cancerous or malignant tissue, which is then secreted into the blood stream. Thus, by testing your blood for abnormal levels of prostatic specific antigen (PSA), your doctor can far better determine the possibility that your prostate may or may not contain areas of cancer. It is generally recommended that men 50 years of age or older should have a PSA test yearly along with their digital rectal examination.

A third method of detecting prostate cancer is by using an ultrasound (or ECHO) study. A small probe is placed in the rectum, directly behind the prostate gland, and sound waves are utilized to produce an actual picture of the prostate on a television monitor. Your urologist studies these pictures, searching for areas that appear suspicious for cancer; any such areas can be immediately biopsied using a very small needle guided through the probe. While prostate ultrasound has proven to be quite simple, accurate and safe, nevertheless, it is more involved than simple digital examinations or PSA determinations; therefore, this study is usually restricted to men whose prostate glands feel abnormal on rectal examination or whose PSA levels are abnormal. >>

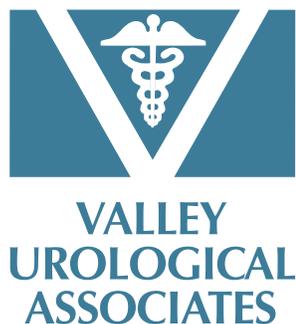
Conditions of the Prostate Gland *continued*

It is also very important to point out that neither the digital rectal examination, the PSA determination, nor the prostatic ultrasound study represent “stand-alone” tests in the early detection of prostatic cancer. None of the tests has proven to be overly accurate or helpful when performed alone; they are most beneficial when utilized by your physician in a combined, coordinated, logical manner.

A recommendation then for the earlier detection of prostate cancer is as follows:

- 1) A digital rectal examination plus a PSA for:
 - All men over 50 years of age
 - All men over 40 years of age with a close family history of prostate cancer
 - All African/ American males over 40 years of age
- 2) A prostate ultrasound study with possible biopsies for any men with abnormal rectal examinations or PSAs.
- 3) Appropriate treatment for the cancer if the biopsies prove to be positive for malignancy.
- 4) Repeated digital rectal examination and PSAs every six (6) months for those men undergoing ultrasound studies and biopsies in whom the biopsies do not detect cancer; this six (6) month program is continued until no change in the rectal examination or PSA is noted.
- 5) Repeat digital rectal examination and PSA yearly.

Prostate cancer is a serious medical concern. The important “takeaway” is that it is highly curable if detected early, and patients themselves must take responsibility for monitoring their health by following recommendations for early detection.



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