



## PROSTATE BIOPSY (with ultrasonic guidance)

### Introduction

Prostatic ultrasound is a very safe and simple method of obtaining images or pictures of the prostate gland and its adjacent structures. While the technique of ultrasound itself is not necessarily new, it was not until the relatively recent past that enough knowledge and experience had been generated regarding prostatic ultrasound to make this test of practical importance to large numbers of male patients. While this study is frequently utilized by urologist to detect and evaluate a variety of non-malignant diseases of the prostate gland such as infections, calculi (stones), and/or blockages, an increasingly important role for ultrasound lies in the early detection of small, curable prostate cancers. Further

more, a refinement of ultrasound technology has improved the ability of the urologist to perform a biopsy of an abnormal prostate gland and thus more accurately diagnose or exclude the diagnosis of cancer.

Prostatic ultrasound and prostatic biopsy can best be performed in a urologist's office with limited patient preparation. The procedures are minimally uncomfortable and are easily tolerated by the vast majority of patients. Anesthesia is neither required nor necessary for either procedure and patients may return to regular activity at the completion of the tests. Most studies require no more than fifteen to twenty minutes.



### About 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)

Apparently 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.

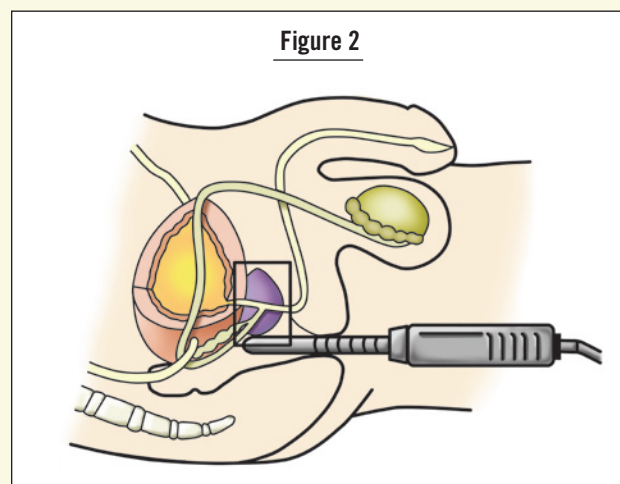
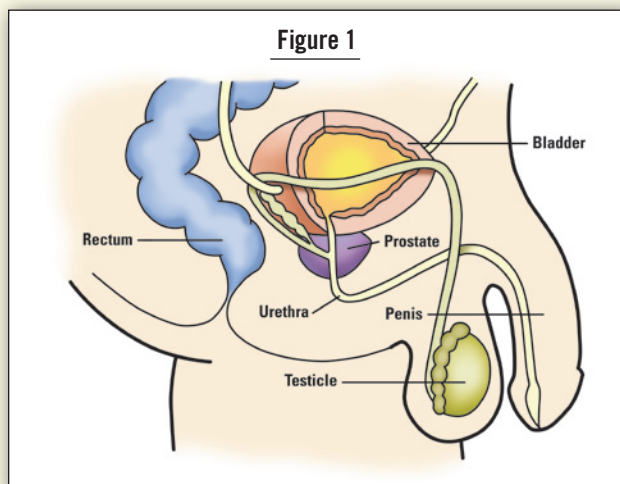
There are generally three major disturbances that can affect the prostate gland:

- 1.) Infection (prostatitis)
- 2.) Non-cancerous enlargement of the prostate (*Benign Prostatic Hyperplasia or BHP*)
- 3.) Prostatic cancer

### During The Procedure

The ultrasound study is performed in a routine examination room. Your physician performs the actual test, with a nurse or technician assisting. You will be asked to lie on a comfortable position on your left side. The lubricated ultrasound probe will be gently inserted into the rectal channel and will remain in this position for approximately five to seven minutes, being carefully rotated from side to side until all aspects of the prostate gland have been visualized and the test has been completed. (See Figure 2)

If an abnormality is detected within the prostate, a biopsy will be performed. A very fine biopsy "needle" will be inserted into the probe and placed adjacent to the area of concern. The "needle" utilizes an automatic apparatus, which is then quickly advanced into the prostate gland, removing a tiny specimen of tissue for microscopic examination; since the wall of the rectal channel contains very few nerve fibers, and since





the “needle” apparatus is advanced and withdrawn so rapidly (a fraction of a second), the vast majority of patients report this process to be essentially painless. If necessary, several biopsies may be taken with great patient safety and comfort.

Once all areas of the prostate gland have been examined, and the biopsies performed, the probe will be withdrawn, completing the test.

#### **After The Procedure**

Patients may return to essentially normal activity immediately after the study, remembering the following:

- A.) Avoid “extremes” of physical (jogging, motorcycle riding, etc.) for two (2) days.
- B.) Take the remaining antibiotic pills as prescribed by your physician.
- C.) Continue to take any other medications, which have been previously prescribed for you.
- D.) Resume your anticoagulants (blood thinners) the day following the study.
- E.) Do not be concerned if you notice a small to moderate amount of blood in your bowel movements, on the toilet tissue, in your urine, or in the semen during ejaculations; all of no significant concern. If these events persist or alarm you, do not hesitate to contact your physician.

#### **Possible Complications**

Virtually all medical tests or studies carry some risk of complications; fortunately with prostatic ultrasound/biopsy, such risk has proven to be extremely small and probably compares in magnitude to the risk of complications associated with a tooth extraction. For example, on very rare occasions, patients experience significant rectal or urinary bleeding, temporary inability to urinate, or prostatic infection; almost always, these problems are easily corrected and the patient

quickly returns to normal activity. On balance, the information gained by your urologist during these studies, far outweighs the risks of possible side effects.

#### **Preparation For The Test**

There is actually very little special preparation prior to a prostatic ultrasound/biopsy; however, the following points should be stressed.

- A.) You should eat only a light breakfast on the day of the study; if the study is scheduled for the afternoon, a light lunch is also acceptable.
- B.) In an effort to cleanse your lower bowel, you should administer a Fleet enema to yourself approximately two (2) hours prior to the test; your local pharmacy can supply the Fleet enema “kit” without a prescription.
- C.) You will have been given a prescription for three antibiotic pills. So that the risk of infection may be minimized, you should take one of these pills approximately one (1) hour before the scheduled study; the remainder of the pills will be taken during the two (2) days subsequent to the test and further instructions regarding these pills will be issued to you at the completion of the procedure.
- D.) You must avoid any anticoagulants (blood thinners) such as Coumadin, Persantine, aspirin or aspirin-containing products, for five (5) days prior to the scheduled test.
- E.) On the day of the procedure, you should take any other regularly prescribed medications.

---

#### **Obtaining Results**

Once the test is completed, your physician will be able to immediately discuss the results of the ultrasound study itself. Microscopic interpretation of the biopsy material will take three to five days; your particular physician will discuss with you exactly how this information will be relayed to you.