

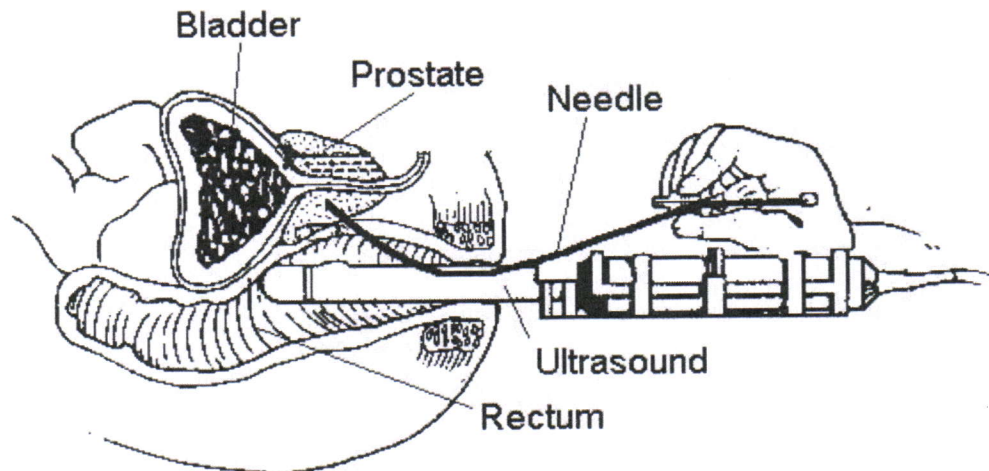
## FREQUENTLY ASKED QUESTIONS ABOUT ULTRASOUND GUIDED TRANSRECTAL NEEDLE BIOPSY OF PROSTATE

### What are the indications for a transrectal ultrasound guided prostate needle biopsy (also referred to as a TRUS)

A transrectal ultrasound guided prostate needle biopsy is done to check the prostate gland for the presence of cancer.

This is generally indicated when ANY of the following occur:

- Suspicion is raised by an abnormal prostate specific antigen (PSA) blood test
- Suspicion is raised by a rising prostate specific antigen (PSA) blood test
- By an abnormal digital (finger) examination of your prostate
- By a prior biopsy that showed cells that were not normal (atypia or what is referred to by urologists as PIN or prostatic intraepithelial neoplasia)



### What does a transrectal ultrasound guided prostate needle biopsy mean?

**Transrectal** means that the ultrasound and biopsy will be done through the rectal wall after the ultrasound device is placed through the anus into the rectum.

**Ultrasound** (or sonogram) is harmless sound waves used in a medical imaging device to give us pictures of certain body parts

**Ultrasound Guided** means that the biopsy will be guided to the area of concern by an ultrasound machine.

A **biopsy** is the medical term which describes the removal of a piece of tissue from the body for microscopic examination to check for the presence of disease.

A **needle biopsy** specifically refers to using a needle to obtain a small piece of tissue which can then be examined.

### What is the preparation for the biopsy?

A prostate needle biopsy is a minor procedure which takes only 15-20 minutes to perform, and is generally done in our office. However, some preparation is needed to ensure that the biopsy will go smoothly and safely.

***Please bring someone to drive you home!***

To ensure that bleeding risks are minimized **no aspirin products can be used for 7 days before the biopsy.** If you are taking any blood thinner, such as warfarin or Coumadin, we need to carefully plan a period of time off the drugs prior to the biopsy. **Non-steroidal anti-inflammatory medication such as ibuprofen or naprosyn and Vitamin E** should be stopped three days before the biopsy. Call us if you forget to stop your aspirin or blood thinners. We may want to re-schedule the biopsy.

A **Fleets enema** should be administered (by you) about two hours before the visit. Buy the enema at any drug store and follow the instructions on the package. This is done to cleanse the rectum of stool to allow us to get a clear view of the prostate with the ultrasound probe. As a reminder, you should also be taking your remaining antibiotic at about this time.

We will supply you with either samples or a prescription for an **antibiotic**. The pills must be started BEFORE the biopsy. Please read the instructions carefully. **The antibiotics will start the day before the biopsy and another pill will be taken on the morning of the biopsy. The best antibiotic levels are obtained if the second pill is taken approximately 2 hours before the biopsy.**

You must sign a **consent form** that declares that you understand the procedure and the risks involved. (If you forget your form at home, another will be provided)

Do not urinate completely within 15 minutes of your biopsy. It is okay to partially empty your bladder if you have a strong desire to urinate.

No dietary restrictions on the day of the procedure are needed.

### **What happens, step by step, during the biopsy procedure?**

#### **Arrival**

After arriving at the office, we will ensure that you have complied with pre-biopsy instructions and have signed the consent form. If you have not taken the antibiotics or not stopped your aspirin, we will reschedule your biopsy.

#### **Bathroom**

You may want to make a quick stop in the restroom after your arrive to partially empty your bladder if it is full. Do not empty your bladder completely as a small amount of urine in the bladder helps distinguish the prostate from the inside of the bladder.

#### **Changing room**

You will be then escorted to a changing room and given a paper gown to wear. You will need to undress completely except for your socks and undershirt and put on the gown so that it opens in the rear. You will then come into the biopsy room.

#### **Biopsy Room**

To perform the biopsy, you will be asked to lie down on your side on the exam table. When the ultrasound begins we will have you bend both knees towards your chest and hold them there until the examination is completed.

#### **Digital Rectal Examination**

We will begin in most cases by performing a digital (finger) rectal exam of the prostate and to ensure that the rectum is not full of stool and to re-examine the prostate gland for nodules or irregularities.

#### **Ultrasound Probe**

The ultrasound probe, which is somewhat wider than a finger, is lubricated and then gently inserted through the anus into your rectum until rests just behind your prostate (a matter of 2-3 inches).

Using ultrasound waves, we will see the inside of your prostate on a television monitor. First, we will scan the entire prostate and take measurements of the prostate size as well as any suspicious areas. These measurements will take about 4-5 minutes. Once these measurements are completed we are ready to biopsy the prostate.

#### **Biopsy of Prostate**

The ultrasound is also essential in guiding the placement of the needle into the prostate to obtain accurate biopsy tissue samples. After aiming the ultrasound probe at a certain area of the prostate the biopsy needle will be inserted through the ultrasound probe and placed through the rectal wall to reach your prostate.

The needle is relatively thin and you may feel a pinch or some pressure as it is inserted into your prostate. We use an automated spring-loaded needle firing mechanism which, when triggered, very quickly and relatively painlessly removes a small prostate tissue sample inside the needle. Local anesthesia (lidocaine or Novocain) may be used to reduce discomfort.

The automated spring mechanism makes a snapping or popping sound with each needle biopsy. We will warn you when the popping is to occur. The assistant will then take each specimen, label it and return the biopsy gun to the urologist to biopsy another area of the prostate.

#### **Number of Biopsies?**

We may take several biopsies from your prostate gland in this fashion, depending upon the situation. There is no minimum or maximum number of biopsies but the number of biopsies taken averages from six to twelve.

Using an automated biopsy needle with the guidance of ultrasound, six to twelve biopsies can easily be obtained in less than five minutes with only minimal discomfort to you. Again, generally, no anesthesia of any kind is required or needed.

In some circumstances we will also take biopsies using a finger guided method. The ultrasound probe is removed from the rectum and the urologist places a finger inside the rectum up to any suspicious area. Using the same biopsy gun and needle, additional biopsies will be taken.

#### **Procedure completed**

After the biopsies are completed you will turn onto your back and rest for a moment or two. Then you will be helped off the table and escorted back to the changing room. You can clean up and if needed you may want to empty your bladder before leaving. Note: You may see some blood in the urine, even a small clot. This is not unexpected.

#### **After the biopsy where should I go?**

You should head home immediately from the biopsy procedure. We suggest that you curtail your activity until the next day. If you see blood in the urine or stool, you must get off your feet and drink plenty of fluids. You may shower or bathe whenever you wish. You may resume regular activity the following day. If you see blood, however, you must again curtail activity until the day after the bleeding stops.

### **What are the complications of prostate biopsy?**

The complication rate after this form of biopsy is in the region of 2-4% (2 to four men out of 100).

Complications include bleeding, infection and inability to urinate.

### **Bleeding**

Occasionally after a prostate biopsy some bleeding may occur in the urine, stool or semen

Urine: You are likely to see some blood in the urine for the first few days. This bleeding might be noted at the beginning or end of urination or throughout the entire stream. Rarely, bleeding may persist for one to two weeks on and off. Exercise or sex may precipitate bleeding. If so, restrict these activities for a week. **Call us if you are unable to urinate at any time - bleeding or not.**

Semen: If you are sexually active, there is likely to be blood mixed with the sperm at the time of ejaculation. This is referred to as hematospermia or hemospermia by physicians. Hematospermia is not surprising as the prostate's main function is to produce semen, the fluid that is ejaculated with sexual intercourse. Traces of blood may persist for weeks (rarely, even months). Blood in the semen may be red or brown or a rusty color. Hematospermia is almost never serious and does NOT represent a threat to you or your partner. You do not need to restrict sexual activity if the only bleeding you see occurs with ejaculation.

Stool: The biopsy is done through the rectal wall. Therefore seeing blood in the stool is not surprising either. Rectal bleeding is actually rare other than some mild spotting for the first few days. Any significant bleeding that is noted after a week should be brought to our attention.

### **Infection:**

With any internal procedure, such as a biopsy, a small chance of infection exists. If infection is to occur, most likely it will be in the prostate or urinary tract. The use of antibiotics pre-biopsy reduces but does not eliminate this possibility.

A urinary tract infection can occur anytime within the first week or two after the biopsy but usually happens within two to three days. Symptoms that might be noted are from the lower urinary tract (bladder and prostate). Urinary frequency, burning with urination, sense of incomplete emptying of the bladder is the most common symptoms.

If the infection is severe it may reach the blood stream. Fevers, chills, shaking, sweating and lack of energy may be noted. A blood stream infection is very serious and even life threatening. If symptoms of a blood infection are seen you must contact us immediately. If you cannot reach us then you must contact your regular doctor or go to the emergency room.

For any infection we will start you on antibiotics. If we are not sure whether you have an infection, we often start antibiotics until the urine tests (and sometimes, blood tests) are completed. The most important test is called a urine culture and it determines whether an infection really exists in the urinary tract. Urine cultures take at least 48 to 72 hours to complete.

### **Urinary tract obstruction**

Occasionally there can be some swelling of the prostate gland after the biopsy, leading to difficulty in urination. If that happens, and you are unable to pass urine at all then you should telephone us for further advice. If you cannot reach us then you will need to come to the emergency room. It may be necessary to insert a small tube called a catheter through the penis and into the bladder to drain the urine out. How long the catheter remains in the bladder depends on a number of factors including how much urine was in the bladder at the time of catheterization and whether the patient has had any trouble passing urine prior to the biopsies being taken. If we did not place the catheter ourselves, you must call us the next day to discuss plans to have the catheter removed.

## **LEVOFLOXACIN OR LEVAQUIN OR CIPROFLOXACIN OR CIPRO XR**

Levaquin (levofloxacin) and Cipro XR (ciprofloxacin) are broad spectrum antibiotics commonly used to treat urinary tract infections and used as preventative medications for prostate biopsies.

### **Dosing instructions**

You will be given two pills of either Levaquin 500 mg or Cipro XR 1000. Please take the first pill the day prior to the biopsy, preferably later in the day. Please take the second pill early on the morning of the biopsy or at least two hours before the biopsy. You should use the Fleets enema to cleanse the rectum about the same time.

### **SPECIAL INSTRUCTIONS**

If you are using other prescribed medications you should inform your physician. Mineral supplements, vitamins with iron or minerals, calcium-aluminum or magnesium-based antacids, or sucralfate should not be taken within two hours before or after taking Levaquin. Take all the medicine prescribed even after you begin to feel better. If you have had no signs of improvement within three days, or still have signs of infection when the medication is completed, give us a call.

Rarely, Levaquin or Cipro causes dizziness or lightheadedness. Do not drive a car or operate machinery until you know how Levaquin will affect you.

### **What special dietary instructions should I follow while using Levaquin or Cipro XR?**

Drink at least eight glasses of water a day (other liquids are OK, water is best.) Do not take antacids such as Tums or Roloids or Maalox within two hours of Levaquin. Caffeinated beverages are OK to drink.

### **What side effects can Levaquin or Cipro XR cause? What can I do about them?**

Nausea and diarrhea can occur. If so, take Levaquin with a light snack or a meal.

Headache or restlessness. Contact us if these effects are severe or persist.

Skin rash. Stop taking Levaquin immediately and contact us or your regular doctor.

Other side effects rarely occur with Levaquin. If anything unusual is happening or persisting, please let us know.

### **What other precautions should I follow while taking Levaquin or Cipro XR ?**

Do not allow children to take this drug. Some patients can be sensitive to the sun and sunburn while taking this medication. Use a hat and sunscreen until this medication is completed.

### **What if I forget to take the drug?**

Call us to see if the procedure needs to be rescheduled

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# PROSTATE BIOPSY INSTRUCTIONS AND REMINDERS

### 7-10 DAYS PRE PROCEDURE

- o Aspirin, aspirin by-products (i.e., Excedrin, Ecotrin, St. Joseph Aspirin), blood thinners, anti-inflammatory medications (i.e., Motrin, Advil, Ibuprofen, Naproxen, Daypro, Plavix, Persantine) and mega dose Vitamin E ***must be discontinued 7-10 days prior to procedure as directed by your physician***
- o ***If you take Coumadin you must inform your physician.*** He / She will inform you if you need to discontinue this medication prior to your prostate biopsy.

### DAY BEFORE PROCEDURE

- o Start taking antibiotic the day before your procedure as directed by your physician.
- o Take one plain fleet enema the evening before the procedure.

### DAY OF PROCEDURE

- o Take antibiotic the day of your procedure as directed by your physician.
- o Take one plain fleet enema 2 hours before the procedure. *You may eat the morning of the procedure.*

### DAY AFTER PROCEDURE

- o Take antibiotic 1 day after procedure as directed by your physician.

### POST PROCEDURE INSTRUCTIONS

- o No heavy lifting for 24 hours.
- o Do not resume aspirin or non-steroidal anti-inflammatory medications for 3 days after procedure.
- o You must consult with your primary care physician, cardiologist or MIU physician for instructions on resuming your blood thinning medications.
- o Drink extra fluids for the next 24 hours.

### WHAT TO EXPECT AFTER THE PROCEDURE

- o Mild rectal discomfort for 24 hours.
- o Small amount of bleeding in the urine, from the rectum or in the ejaculate for 1 to 2 weeks.
- o Brownish ejaculate may occur for 1 to 2 months after the procedure.

### CONTACT THE OFFICE IF:

- o Fever (over 100.5) orally or severe chills.
- o Continuous, bright red blood from either the rectum or in the urine.
- o Difficulty urinating with or without blood clots.
- o Severe pain in the rectal area.