Prostate Biopsy (saturation and regular)

A prostate biopsy is a procedure to remove samples of suspicious tissue from the prostate. The prostate is a small, walnut-shaped gland in men that produces fluid that nourishes and transports sperm.

During a prostate biopsy, also called a core needle biopsy, a fine needle is used to collect a number of tissue samples from your prostate gland. A prostate biopsy is performed by a doctor who specializes in the urinary system and men's sex organs (urologist). A saturation biopsy aims to obtain 20 or more samples of tissue.

Your urologist may recommend a prostate biopsy if results from initial tests, such as a prostate-specific antigen (PSA) blood test or digital rectal exam (DRE), suggest you may have prostate cancer.

Following a prostate biopsy, tissue samples from the prostate biopsy are examined under a microscope for cell abnormalities that are a sign of prostate cancer. If cancer is present, it is evaluated to determine how quickly it's likely to grow and spread and to determine your best treatment options.

Types of prostate biopsy procedures

Prostate biopsy samples can be collected in different ways. Your prostate biopsy may involve:

- **Passing the needle through the wall of the rectum.** This is called a transrectal biopsy, and it is the most common way of performing a prostate biopsy.

- **Collecting a tissue sample through the tip of the penis.** This way of performing a prostate biopsy is called a transurethral biopsy. A long, thin tube equipped with a camera is passed through the opening (urethra) at the tip of the penis in order to access the prostate.

- **Inserting the needle through the area of skin between the anus and scrotum.** This type of prostate biopsy involves making a small cut in the area of skin (perineum) between the anus and the scrotum. The doctor inserts the biopsy needle through the cut and into the prostate to draw out a sample of tissue.

What to expect during transrectal prostate biopsy

In most cases, the urologist performs a transrectal prostate biopsy. For this procedure, your doctor will start by having you lie on your side, with your knees pulled up to your chest. In some cases, you may be asked to lie on your stomach.

After cleaning the area and applying gel, your doctor will gently insert a thin ultrasound probe into your rectum. Transrectal ultrasonography is used to create images of your prostate using sound waves. Your doctor will use the images to identify the area that needs to be numbed with an anesthetic injection, if one is used. The ultrasound images are also used to guide the prostate biopsy needle into place.

In most cases, an injection of a numbing medication is used to reduce the discomfort associated with the prostate biopsy. A needle is used to inject the anesthetic at various points near the base of the prostate.

Once the biopsy device is situated, your doctor will retrieve thin, cylindrical sections of tissue with a hollow, spring-propelled needle. The procedure typically causes a very brief, uncomfortable sensation each time the spring-loaded needle takes a sample. Your doctor may target a suspicious area to biopsy or may take samples from several places in your prostate. In most cases, doctors will take 10 to 12 tissue samples. The entire procedure usually takes about five to ten minutes.

After the procedure

After a prostate biopsy, you will probably need to take an antibiotic for a few days. You may feel slight soreness and have some light bleeding from your rectum. You may have blood in your urine or stools for a few days. You may also notice that your semen has a red or rust-colored tint caused by a small amount of blood in your semen. This can last for several weeks.
Prostate Biopsy (continued)

Call your doctor if you have:

- Prolonged or heavy bleeding
- Pain that gets worse
- Swelling near the biopsy area
- Difficulty urinating

In rare cases, a prostate biopsy can lead to infection. If you have any signs of infection, call your doctor.

Signs and symptoms of infection include:

- Fever
- Pain when urinating
- Discharge from your penis

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