Prostate Biopsy

What is a prostate biopsy?

The prostate is a gland in men which sits beneath the bladder and encircles the urethra (waterpipe). Its function is to make some of the fluid in semen.

There are several common diseases which can affect the prostate, including:

- Prostate cancer.
- Benign (non-cancerous) prostate enlargement.
- Infection (prostatitis).

A prostate biopsy is a procedure to sample tissue from the prostate to diagnose or exclude a prostate cancer.

Bladder Prostate Needle Ultrasound Rectum

Transperineal Prostate Biopsy

Why is a prostate biopsy required?

A prostate biopsy may be required if you are suspected of having prostate cancer, because of:

- An abnormal feeling prostate on examination.
- An abnormal prostate specific antigen (PSA) blood test.
- An abnormality on an MRI scan of the prostate.
- A strong family history of prostate cancer.

In men who are known to have low-risk prostate cancer and are being managed with 'active surveillance', a prostate biopsy may be required to make sure the cancer has not become more aggressive.

What does a prostate biopsy involve?

There are three ways a prostate biopsy can be performed:

- Transrectal ultrasound guided (TRUS) biopsy of the prostate.
- Transperineal (TP) biopsy of the prostate.
- MRI guided biopsy of the prostate.

TRUS biopsy of the prostate: The procedure is performed with a sedation anaesthetic. An ultrasound probe is inserted into your rectum (back passage) to visualise your prostate. A needle is passed through your rectum into the prostate in multiple places to take samples of tissue. TRUS biopsy is the quickest and simplest way to biopsy the prostate.

TP biopsy of the prostate: The procedure is performed with a general anaesthetic. An ultrasound probe is inserted into your rectum (back passage) to visualise your prostate. A needle is passed through your perineum (the skin between your scrotum and anus) into your prostate in multiple places to take samples of tissue (pictured). TP biopsy allows for accurate targeting of abnormalities seen on an MRI scan. It has the lowest risk of infection.

MRI guided biopsy of the prostate: The procedure is performed with a light sedation anaesthetic while you are inside an MRI machine. A biopsy probe is inserted into your rectum. An MRI scan is performed to visualise your prostate. A needle is passed through your rectum into your prostate to take samples of tissue. MRI guided biopsy is used to sample small or hard to reach abnormalities.

The samples are sent to the laboratory for testing. The results are available within a few days.

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What is the recovery after a prostate biopsy?

A prostate biopsy is usually performed as day surgery. You can go home on the same day of the surgery as long as you are accompanied by a responsible adult.

You may have some mild bladder/prostate discomfort and burning/stinging when passing urine for a few days.

You may have mild bruising of your perineum, scrotum and penis. This may take a few weeks to clear.

You may notice blood in your urine, semen, and your bowel motions. Blood in your urine and bowel motions will usually clear within a few days. Blood in your semen may take a few months to clear.

You can return to sedentary work the day after your biopsy. If your job involves physical work, you may wish to return to light work for a few days.

It is usually safe to drive 24 hours after the anaesthetic.

You can return to sexual activity immediately after the biopsy.

What are the risks of a prostate biopsy?

Difficulty passing urine after the procedure due to swelling of your prostate or blood clots forming in your bladder. This will require insertion of a catheter to drain your bladder for a few days. (<1/20 risk with TP biopsy. 1/100 risk with TRUS or MRI guided biopsy.)

Prostate or bladder infection. Sometimes infection can spread to the kidneys, testes, or blood stream (sepsis). Rarely this can be a life-threatening infection. (1/100 risk with TRUS and MRI guided biopsy. 1/500 risk with TP biopsy)

Severe bleeding requiring a blood transfusion or another procedure to correct. (<1/5000 risk.)

Temporary difficulty getting an erection. This will usually improve within a few weeks. (1/20 risk with TP biopsy. Very rare with TRUS or MRI guided biopsy.)

A 'false negative' result - failure to detect a significant cancer in your prostate. (1/20 risk with TP and MRI guided biopsy. 1/10 risk with TRUS biopsy.)

Other uncommon or very uncommon risks of surgery and anaesthesia include:

- Blood clots in the legs (Deep vein thrombosis (DVT)) or lungs (Pulmonary embolus).
- Chest infection (Pneumonia).
- Heart attack.
- Stroke.
- A serious allergic reaction (Anaphylaxis).
- Death.

What are the alternative treatment options?

The alternative to having a prostate biopsy is to have surveillance with repeat PSA blood tests, examinations of the prostate, and/or MRI scans. Depending on the likelihood that you have a prostate cancer, this may or may not be a safe option for you.

This is general information only. Please consult your doctor for more information and treatment options.

For appointments and enquiries please contact 07 3830 3300.

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