

Transperineal prostate biopsies using MRI and transrectal ultrasound fusion

What is the evidence base for this information?

This leaflet includes advice from consensus panels, the British Association of Urological Surgeons, the Department of Health and evidence-based sources; it is, therefore, a reflection of best practice in the UK. It is intended to supplement any advice you may already have been given by your GP or other healthcare professionals. Alternative treatments are outlined below and can be discussed in more detail with your Urologist or Specialist Nurse.

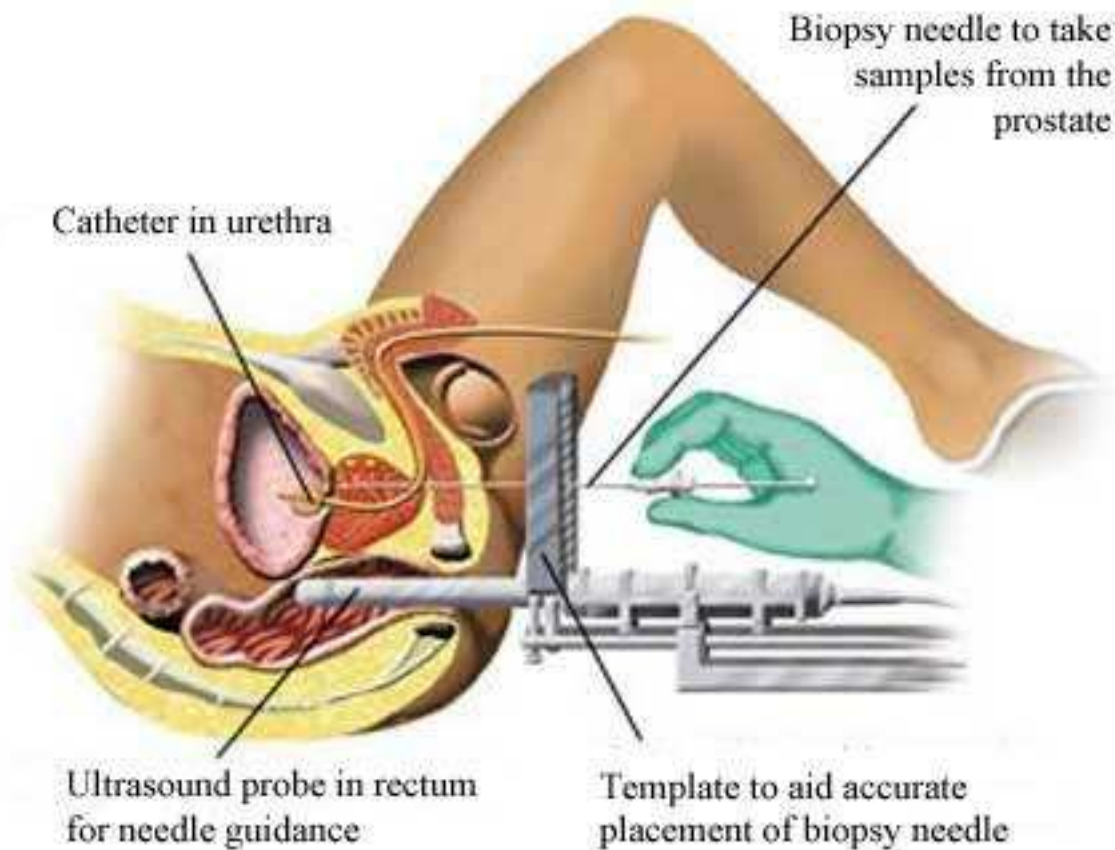
What does the procedure involve?

This procedure involves using an ultrasound probe, inserted via the back passage, to scan the prostate. Overlaying a previously taken high-definition image (MRI) onto the live ultrasound image biopsies are taken through a special grid and the skin behind the testicles (the perineum). The sampling is targeted and the number of samples taken depends on the size of the prostate, usually ranging from 24 to 36 samples.

The reason this approach is adopted is because it allows access to the entire prostate through a clean area. Transrectal biopsies, as you may have had done before, carry a greater risk if performed in this number.

What are the alternatives to this procedure?

Observation with repeat blood tests but without biopsies



What should I expect before the procedure?

You will usually be admitted on the day of your surgery. You will normally receive an appointment for pre-assessment, approximately 14 days before your admission, to assess your general fitness, to screen for the carriage of MRSA and to perform some baseline investigations. After admission, you will be seen by members of the medical team which may include the Consultant and your named nurse.

If you are taking Warfarin, you must inform the clinic staff at your pre- assessment visit so that you are advised when to stop your Warfarin prior to the procedure. Usually you are asked to withhold Warfarin for 3 days. A blood test, INR, will be performed prior to your biopsy. If you are taking Aspirin, you do not need to stop these. If you are taking Clopidogrel, you must inform the medical staff because the biopsy may need to be postponed or alternative arrangements made.

You will be asked to insert a suppository to clean your bowel on the morning of the procedure.

After checking for allergies, you will normally be given an oral antibiotic to be taken about an hour before going to theatre and an intravenous injection of antibiotic at the time of your anaesthetic.

Please be sure to inform your Urologist in advance of your surgery if you have any of the following:

an artificial heart valve a coronary artery stent a heart pacemaker or defibrillator an artificial joint an artificial blood vessel graft a neurosurgical shunt any other implanted foreign body a prescription for Warfarin, Aspirin or Clopidogrel (Plavix®) a previous or current MRSA infection high risk of variant CJD (if you have received a corneal transplant, a neurosurgical dural transplant or previous injections of human-derived growth hormone)

What happens during the procedure?

After the general or spinal anaesthetic has been given your legs will be placed in special supports so that the surgeon can gain access to the skin behind the testicles and insert the ultrasound probe into the rectum. The doctor will examine the prostate through the back passage (anus) before inserting the ultrasound probe. This probe is as wide as a man's thumb and approximately 4 inches long.

In order to take samples (biopsies) of the prostate, a special grid is used so that all areas of the prostate can be covered. The biopsy needles are inserted into the prostate through the skin of the perineum, guided by the ultrasound probe. After the sampling has been completed, a dressing will be applied to the perineum and held in place with a pair of disposable pants.

What happens immediately after the procedure?

You will normally be able to go home later the same day after check have been made to ensure that you are passing urine normally.

Following this type of biopsy, blood in the urine is common for 2-3 days, with the occasional blood clot, but this should clear quickly if you increase your fluid intake. You may expect to see blood in the semen for up to 6 weeks.

You will be given antibiotics to take home for a 3-day period . The average hospital stay is 1 day.

Are there any side-effects?

Most procedures have a potential for side-effects. You should be reassured that, although all these complications are well-recognised, the majority of patients do not suffer any problems after a urological procedure.

Please use the check boxes to tick off individual items when you are happy that they have been discussed to your satisfaction:

Common (greater than 1 in 10)

- Blood in the urine for up to 10 days
- Blood in the semen – this may last for up to 6 weeks but is perfectly harmless and poses no problem for you or your sexual partner
- Bruising in the perineal area
- Sensation of discomfort from the prostate due to bruising

Occasional (between 1 in 10 and 1 in 50)

- Inability to pass urine (retention of urine)
- Urinary infection (5% risk)
- Blood infection (septicaemia) requiring hospitalisation (<1% risk)
- Haemorrhage (bleeding) requiring hospitalisation (<1% risk)
- Failure to detect a significant cancer of the prostate
- The procedure may need to be repeated if the biopsies are inconclusive or your PSA level rises further at a later stage

What should I expect when I get home?

When you leave hospital, you will be given a discharge summary of your admission. This holds important information about your inpatient stay and your operation. If, in the first few weeks after your discharge, you need to call your GP for any reason or to attend another hospital, please take this summary with you to allow the doctors to see details of your treatment. This is particularly important if you need to consult another doctor within a few days of your discharge.

It is important that you:

- sit quietly at home for the first 48 hours after the biopsies
- drink twice as much fluid as you would normally for the first 48 hours after the biopsies
- maintain regular bowel function
- avoid physically-demanding activities
- complete your 3-day course of antibiotics

Any discomfort can usually be relieved by simple painkillers.

What else should I look out for?

If you experience a fever, shivering or develop symptoms of cystitis (frequency and burning on passing urine), you should contact your GP. If there is a lot of bleeding in the urine, especially with clots of blood, you should contact the Urology Department.

If you develop a fever outside surgery opening hours, you must telephone the emergency number at your GP surgery so that a doctor can assess your condition.

Are there any other important points?

You will receive an appointment for discussion of the biopsy results at the time of your examination. It will be at approximately 14 days before the pathology results on the tissue removed are available. It is normal practice for the results of all biopsies to be discussed in detail at a multi-disciplinary meeting before any further treatment decisions are made. You and your GP will be informed of the results after this discussion. We sometimes need to order additional tests as a result of the discussion at this meeting and, as a result, you may receive appointments for a bone scintigram, CT scan or MRI scan before you are seen again in outpatients.

Driving after surgery

It is your responsibility to ensure that you are fit to drive following your surgery. You do not normally need to notify the DVLA unless you have a medical condition that will last for longer than 3 months after your surgery and may affect your ability to drive. You should, however, check with your insurance company before returning to driving. Your doctors will be happy to provide you with advice on request.



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