



# TRANSPERINEAL ULTRASOUND-GUIDED BIOPSIES OF THE PROSTATE GLAND

Information about your procedure from  
The British Association of Urological Surgeons (BAUS)

This leaflet contains evidence-based information about your proposed urological procedure. We have consulted specialist surgeons during its preparation, so that it represents best practice in UK urology. You should use it in addition to any advice already given to you.

To view the online version of this leaflet, type the text below into your web browser:

[http://www.baus.org.uk/\\_userfiles/pages/files/Patients/Leaflets/Transperineal biopsies.pdf](http://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Transperineal%20biopsies.pdf)

## Key Points

- Transperineal ultrasound-guided biopsy of your prostate is done to check for prostate cancer
- There is, at present, no more reliable way than biopsies for checking your prostate
- The commonest side-effects are bleeding and reduced urinary flow, but infection is rare
- Many of the prostate cancers diagnosed are not life-threatening; they may require no active treatment, only careful monitoring

## What does this procedure involve?

Putting an ultrasound probe into your rectum (back passage) to scan your prostate. Guided by ultrasound, biopsies are taken from your prostate through your perineum (the skin between your scrotum and rectum). We use a special grid to standardise the biopsies, and we take between 24 and 50 samples, depending on the size of your prostate.

## What are the alternatives?

- **Observation with repeat blood tests** – repeating your blood tests and only investigating further if the tumour marker levels rise
- **[MRI scanning](#)** – using advanced multiparametric MRI scanning, it may be possible to detect tumour(s) in your prostate at an early stage

- **Transrectal ultrasound-guided prostatic biopsies** – usually taken under local anaesthetic with a biopsy needle passed through the ultrasound probe

## What happens on the day of the procedure?

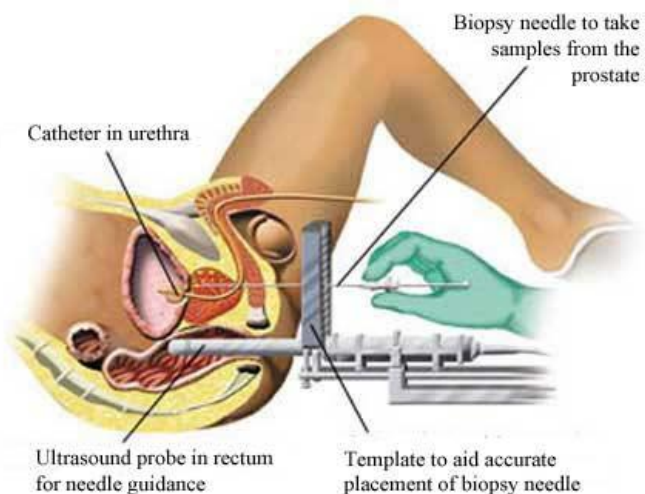
Your urologist (or a member of their team) will briefly review your history and medications, and will discuss the surgery again with you to confirm your consent.

An anaesthetist will see you to discuss the options of a general anaesthetic or spinal anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

We may provide you with a pair of TED stockings to wear. These help to prevent blood clots from developing and passing into your lungs. Your medical team will decide whether you need to continue these after you go home.

## Details of the procedure







- we normally carry out the procedure under a general anaesthetic (where you are asleep) or a spinal anaesthetic (where you are awake but can feel nothing below your waist)
- before the procedure, we will give you either an antibiotic tablet or an injection (depending on local infection control policy), after we have checked carefully for any allergies
- we position you in special supports which allow the surgeon to access the skin behind your scrotum
- we normally examine your prostate first, by rectal examination, before inserting the ultrasound probe
- we put a catheter through your urethra (waterpipe) into your bladder before the procedure; this is removed on the day of surgery or the morning after
- the probe is as wide as a man's thumb and approximately 10 cm (four inches) long
- to take biopsies from the prostate, we use a special grid so that all areas of the prostate can be included









- the biopsy needles are guided into position using the ultrasound scanner (pictured)
- we may get additional biopsy guidance by superimposing multiparametric MRI images on the ultrasound scans
- we take between 24 and 50 biopsy samples, depending on the size of your prostate
- we apply a firm dressing to your perineum which is held in place with a pair of disposable pants
- the procedure takes 30 to 45 minutes to complete
- you should expect to stay in hospital for one day

## Are there any after-effects?

The possible after-effects and your risk of getting them are shown below. Some are self-limiting or reversible, but others are not. The impact of these after-effects can vary a lot from patient to patient; you should ask your surgeon's advice about the risks and their impact on you as an individual:

After-effect	Risk
Blood in your urine for up to 10 days	 Almost all patients
Blood in your semen which can last up to six weeks (this poses no risk to you or your sexual partner)	 Almost all patients
Bruising in your perineal area	 Between 1 in 2 & 1 in 10 patients
Discomfort in your prostate caused by bruising from the biopsies	 Between 1 in 2 & 1 in 10 patients
Temporary problems with erections caused by bruising from the biopsies	 1 in 20 patients (5%)
Inability to pass urine (acute retention of urine)	 1 in 20 patients (5%)

Bleeding in your urine preventing you from passing urine (clot retention)	 1 in 50 patients (2%)
Failure to detect a significant cancer in your prostate	 Between 1 in 10 & 1 in 50 patients
Need for a repeat procedure if biopsies are inconclusive or your PSA level rises further	 Between 1 in 10 & 1 in 50 patients
Bleeding in your urine requiring emergency admission for treatment	 1 in 100 patients (1%)
Infection in your urine requiring antibiotics	 1 in 100 patients (1%)
Septicaemia (blood infection) requiring emergency admission for treatment	 1 in 1000 patients (0.1%)

## What is my risk of a hospital-acquired infection?

Your risk of getting an infection in hospital is approximately 8 in 100 (8%); this includes getting *MRSA* or a *Clostridium difficile* bowel infection. This figure is higher if you are in a “high-risk” group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- bladder removal;
- long hospital stays; or
- multiple hospital admissions.

## What can I expect when I get home?

- you will get some blood in your urine which may last several days, often with the occasional blood clot
- we advise you to drink plenty of fluid to help stop this bleeding
- you often see blood in your semen for up to six weeks
- you will be given advice about your recovery at home
- you will be given a copy of your discharge summary and a copy will also be sent to your GP

- you will normally be given antibiotics; any other tablets you may need will be arranged & dispensed from the hospital pharmacy
- if the bleeding in your urine does not stop, you should contact your GP or specialist nurse for further advice
- if you are unable to pass urine at all, you should contact your GP immediately or go to your local Emergency Department
- we will review the results of your biopsies in a multidisciplinary team (MDT) meeting within seven to 10 days
- we will let you and your GP know the results as soon as possible, and arrange an outpatient appointment for you to discuss what action is needed

## **General information about surgical procedures**

### ***Before your procedure***

Please tell a member of the medical team if you have:

- an implanted foreign body (stent, joint replacement, pacemaker, heart valve, blood vessel graft);
- a regular prescription for a blood thinning agent (warfarin, aspirin, clopidogrel, rivaroxaban or dabigatran);
- a present or previous MRSA infection; or
- a high risk of variant-CJD (e.g. if you have had a corneal transplant, a neurosurgical dural transplant or human growth hormone treatment).

### ***Questions you may wish to ask***

If you wish to learn more about what will happen, you can find a list of suggested questions called "[Having An Operation](#)" on the website of the Royal College of Surgeons of England. You may also wish to ask your surgeon for his/her personal results and experience with this procedure.

### ***Before you go home***

We will tell you how the procedure went and you should:

- make sure you understand what has been done;
- ask the surgeon if everything went as planned;
- let the staff know if you have any discomfort;
- ask what you can (and cannot) do at home;
- make sure you know what happens next; and
- ask when you can return to normal activities.

We will give you advice about what to look out for when you get home. Your surgeon or nurse will also give you details of who to contact, and how to contact them, in the event of problems.

### ***Smoking and surgery***

Ideally, we would prefer you to stop smoking before any procedure. Smoking can worsen some urological conditions and makes complications more likely after surgery. For advice on stopping, you can:

- contact your GP;
- access your local [NHS Smoking Help Online](#); or
- ring the free NHS Smoking Helpline on **0800 169 0 169**.

### ***Driving after surgery***

It is your responsibility to make sure you are fit to drive after any surgical procedure. You only need to [contact the DVLA](#) if your ability to drive is likely to be affected for more than three months. If it is, you should check with your insurance company before driving again.

### **What should I do with this information?**

Thank you for taking the trouble to read this information. Please let your urologist (or specialist nurse) know if you would like to have a copy for your own records. If you wish, the medical or nursing staff can also arrange to file a copy in your hospital notes.

### **What sources have we used to prepare this leaflet?**

This leaflet uses information from consensus panels and other evidence-based sources including:

- the [Department of Health \(England\)](#);
- the [Cochrane Collaboration](#); and
- the [National Institute for Health and Care Excellence \(NICE\)](#).

It also follows style guidelines from:

- the [Royal National Institute for Blind People \(RNIB\)](#);
- the [Information Standard](#);
- the [Patient Information Forum](#); and
- the [Plain English Campaign](#).

## **Disclaimer**

We have made every effort to give accurate information but there may still be errors or omissions in this leaflet. BAUS cannot accept responsibility for any loss from action taken (or not taken) as a result of this information.

### **PLEASE NOTE**

The staff at BAUS are not medically trained, and are unable to answer questions about the information provided in this leaflet. If you do have any questions, you should contact your urologist, specialist nurse or GP.