



## TRANSRECTAL 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.



<http://rb.gy/bgelv>

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### KEY POINTS

- Transrectal ultrasound-guided biopsy of your prostate is done to check for prostate cancer
- There is, at present, no more reliable way than biopsy for checking your prostate
- The commonest side-effects are bleeding and infection
- 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 rectum (back passage). This is usually performed using local anaesthetic, as an outpatient procedure. Sometimes, we do it under a spinal or general anesthetic in theatre.

You will often have an MRI scan first, to see if you need a biopsy, and to guide where we need to take samples from if biopsies are needed.

## What are the alternatives?

- **Observation with repeat blood tests** – repeating your blood test and only investigating further if your prostate specific antigen (PSA) blood test level rises
- **Transperineal ultrasound-guided prostatic biopsies** – taking multiple biopsies under either local or general anaesthetic, using a biopsy needle passed through your perineum (the skin between your scrotum and anus) guided by ultrasound; this has a lower risk of infection

## 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.

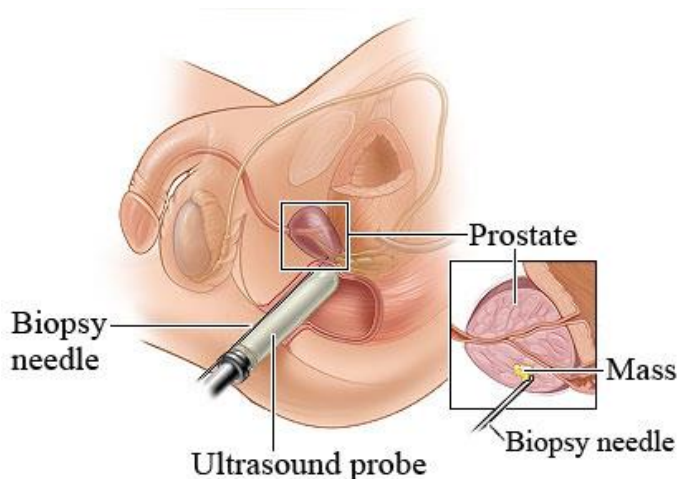
We do almost all transrectal prostatic biopsies under local anaesthetic. If, for any reason, your procedure needs to be done under a general anaesthetic, an anaesthetist will see you to discuss the type of anaesthetic. The anaesthetist will also discuss pain relief after the procedure with you.

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

## Details of the procedure


- we normally carry out the procedure under local anaesthetic although, occasionally, we do it under a brief general anaesthetic
- 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 ask you to undress, change into a gown and lie on a couch on your left side, with your knees drawn up to your chest











- we normally examine your prostate first, by rectal examination, before inserting the ultrasound probe
- the probe is as wide as a man's thumb and approximately 10 cm (four inches) long
- you may feel some vibration from the probe whilst it is scanning
- in most patients, we take biopsies from the prostate by passing a special biopsy needle through the ultrasound probe (pictured)
- before we take any biopsies, we inject local anaesthetic around your prostate to reduce any discomfort
- the biopsy needle is a spring-loaded device which makes an audible "click" each time it is activated
- we normally take 10 to 18 biopsy samples
- at the end of the procedure, your prostate may feel "bruised"
- the procedure takes 20 to 30 minutes to perform
- you should expect to go home on the same day as your biopsies, or within 24 hours if you have a general anaesthetic



### 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. We have not listed very rare after-effects (occurring in less than 1 in 250 patients) individually. 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	 Almost all patients

Blood in your semen which can last for up to six weeks (this poses no problem for you or your sexual partner)	 Almost all patients
Blood in your stools (from your bowel)	 Almost all patients
Discomfort in your prostate from bruising due to the biopsies	 Between 1 in 2 & 1 in 10 patients
Infection in your urine requiring antibiotics	 1 in 10 patients (10%)
Temporary problems with erections caused by bruising from the biopsies	 1 in 20 patients (5%)
Bleeding which makes you unable to pass urine (clot retention)	 1 in 50 patients (2%)
Septicaemia (blood infection) requiring emergency admission for treatment	 Between 1 in 50 and 1 in 100 patients (1-2%)
Failure to detect a significant cancer in your prostate	 Between 1 in 10 & 1 in 50 patients
Bleeding in your urine or bowel requiring emergency admission for treatment	 1 in 100 patients (1%)
Need for a repeat procedure if biopsies are inconclusive or your PSA level rises further	 Between 1 in 50 & 1 in 250 patients

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

Your risk of getting an infection in hospital is between 4 & 6%; this includes getting *MRSA* or a *Clostridium difficile* bowel infection. The risk is lower for

“outpatient” procedures but higher if you are in a “high-risk” group of patients such as patients who have had:

- long-term drainage tubes (e.g. catheters);
- 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
- we advise you to drink plenty of fluid to help stop this bleeding
- the bleeding from your back passage may go on for several days, but if you have continual dripping of blood, you need to come and see us urgently
- 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 or bowel 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
- if you have a temperature, feel unwell with flu-like symptoms or shivers/shaking, you should go straight 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 (e.g. warfarin, aspirin, dipyridamole, clopidogrel, rivaroxaban, 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 Smoke-Free National Helpline on **0300 123 1044**.

### ***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

Whilst we have made every effort to give accurate information, 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 have any questions, you should contact your Urologist, Specialist Nurse or GP in the first instance.