

Having a transperineal prostate biopsy

This leaflet will answer some of the questions you have about having a transperineal prostate biopsy. If you have more questions, please speak to one of our doctors or nurses caring for you.

What is prostate biopsy?

Prostate glands are only found in men and are about the size of a walnut. Your prostate gland is just below your bladder and in front of your rectum (bottom). Its function is to produce white fluid that becomes part of your semen.

A prostate biopsy involves taking small samples (biopsies) of tissue from your prostate gland. The samples are then sent to be examined under a microscope by a specialist.

Because of the special way the specimens are prepared for the histopathologist (specialist in examining body cells), the results take about a week to come back.

Why do I need a prostate biopsy?

There are a number of reasons why you might have been advised to have a prostate biopsy:

- A blood test showing a high level of prostate-specific antigen (PSA). PSA is a protein that is released into your blood from the prostate gland. High levels of PSA and a pre-biopsy MRI scan has shown an abnormality in the prostate that needs prostate biopsies.
- You may have had previous biopsy results that came back with no evidence of cancer, but your PSA blood test is still suspicious and/or an MRI scan has shown an abnormality in the prostate that needs prostate biopsies.
- You may have a known diagnosis of prostate cancer that has not needed treatment and has been on continued observation (active surveillance) but the PSA has gone up, or a follow-up MRI scan has shown an abnormality in the prostate that needs prostate biopsies.
- Your doctor/nurse specialist may have found a lump or abnormality during a digital rectal examination (DRE). A DRE is where a doctor feels your prostate gland through your rectum (back passage) with their index finger.

The biopsy can tell us if any of your prostate cells have become cancerous or, if you have pre-existing cancer, whether the cancer has changed. It can also diagnose other conditions such as benign (non-cancerous) enlargement of the prostate, prostatitis (inflammation of the prostate, sometimes caused by a bacterial infection), or prostatic intraepithelial neoplasia (PIN), which is a change in the cell type, but not cancer.

How is the biopsy done?

At Guy's Hospital we do prostate biopsies through the perineal skin. This is the skin between your bottom and the scrotum. This is called a transperineal prostate biopsy.

Using an ultrasound probe (see below) placed in your bottom to see the prostate, we take samples of the prostate through the perineal skin.

What is ultrasound?

Ultrasound is a way of seeing different body parts using high frequency sound waves to create images of your internal structures. The sound waves bounce off tissues and organs and are picked up and displayed on a screen.

Your prostate gland is in front of your rectum, so a small ultrasound probe can be put in your rectum to get an image of it. This is called a trans-rectal ultrasound (TRUS). This will help to guide your doctor or specialist nurse when they are doing the biopsy.

Consent – asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

What are the risks?

Although serious complications are rare, every procedure has risks. Your doctor will discuss these with you in more detail.

- **Infection:** This happens to one in 500 patients (0.2%). We may give you antibiotics after your biopsy to reduce the chance of infection, but this is not always needed because the biopsy is done through the skin, not through the rectum. If you develop a fever, or have pain or a burning sensation when passing urine (peeing), you might have an infection and should seek attention from your nearest Emergency Department.
- **Blood when you pass urine:** This is common and can range from peach coloured urine to rose or even deep red. It is rarely a sign of a serious problem. Increasing your fluid intake (drinking more water) will usually help 'flush the system' and clear any bleeding. If there is persistent or heavy bleeding every time you pass urine you should go to your nearest Emergency Department.
- **Difficulty passing urine:** It is possible that the biopsy can cause an internal bruise that makes it difficult for you to pass urine. This happens in less than 1 in every 200 cases (0.5%). It is more likely to happen in men who had difficulty passing urine before having the biopsy, or have had a general anaesthetic or sedation for the biopsy. If you have difficulty passing urine, you may need a catheter (flexible tube that drains urine from your bladder) and you will need to go to your nearest Emergency Department for assessment.
- **Allergic reaction:** You may have an allergic reaction to the medication we give you. Although this risk is low (less than one in 1,000 cases), you can reduce this risk by letting us know if you have had any previous allergic reactions to any medications or food.

Before the biopsy

Before you have a biopsy, you should tell the doctor or specialist nurse if you:

- are taking any medications, particularly antibiotics or anticoagulants (medication that helps to prevent blood clots from forming), including aspirin, warfarin, clopidogrel, rivaraxoban or dipyridamole
- have allergies to any medications, including anaesthetic
- have ever had bleeding problems
- have an artificial heart valve.

You should continue to take all of your medications as normal, unless you have been told otherwise by the doctor who organised your biopsy.

Are there any alternatives?

A transperineal biopsy is now our standard procedure for prostate cancer diagnosis. We no longer offer transrectal biopsies to any patients. We believe a transperineal biopsy is safer and more accurate than any other form of prostate biopsy, and we can do this safely and comfortably under local anaesthetic.

Will I have a local or general anaesthetic?

The biopsy can be taken using either a local or general anaesthetic. Local anaesthetic is a medication used to numb a specific area of your body. Sometimes, particularly if you have found the simple finger examination of the prostate very uncomfortable, you may be recommended to have intravenous (through a drip) sedation or a general anaesthetic. This causes you to become temporarily unconscious (asleep). Your doctor or specialist nurse will discuss the options with you before you have your biopsy. For more information, see our leaflet **Having an anaesthetic** – please ask a member of staff for a copy. Over 80% of patients can have biopsies done under local anaesthetic avoiding the risks and side effects of a general anaesthetic.

What will happen on the day of my biopsy?

The biopsy is usually carried out in clinic or as day case, which means you will be able to come into hospital, have the biopsy and leave on the same day. You will be sent a letter telling you when and where to come on the day for the biopsies. You will see your urology doctor/nurse specialist, who will go through the procedure again with you, and ask you to sign the consent form. You will be given the opportunity to ask questions.

If you are having a **local anaesthetic** biopsy, it is important to make sure that you are not hungry or thirsty, so you can eat and drink before the procedure. There is no need to starve at all. You will be asked to lie on the specially modified table and your legs will be placed in supportive stirrups. Your doctor/nurse specialist will examine your prostate with a finger in your bottom and use a special gel to relax your anus muscle. They will then adjust your position, taping your scrotum out of the way and lifting your legs so that your hips are bent as far as possible. If you find this position difficult, let the doctor/nurse specialist know.

The doctor/nurse specialist will use antiseptic to clean the perineal skin which is the area the biopsies will be taken through.

You will be given an injection of local anaesthetic, which will numb the treatment area so that you do not feel any pain during the procedure. The injection will sting for a few seconds at first (a bit like having an injection at the dentist). It is a three stage process and once the anaesthetic has had time to work, although you may find the procedure uncomfortable, you should not feel any pain.

The ultrasound probe is covered in gel to make putting it in your rectum easier. The probe will be in your rectum throughout the procedure so that your doctor/nurse specialist can see your prostate. Your doctor/nurse specialist will use a grid to map your prostate. Very fine needles are then passed through the numb skin and the grid to take biopsies of your prostate.

The biopsies are taken with a device that contains a spring-loaded needle. The needle is put into the prostate gland and removes a tissue sample very quickly. You may feel a brief, sharp pain as the needle is put in. You will hear the click of the 'gun' as it is used to take the biopsy. Normally, 24-28 biopsies are taken.

If you are having a **general anaesthetic** or **intravenous sedation** you will be told when to stop eating and drinking before the procedure. The anaesthetic will be given through a small needle into the back of your hand. This will make you sleep for the whole procedure, so you will not feel any pain or discomfort. You will wake up in the recovery room and your surgeon will see you before you are discharged.

After the biopsy

If you have had a local anaesthetic you can leave as soon you are passing urine normally. You will be asked to rest for about four hours at home after this.

If you have had a general anaesthetic or intravenous sedation, you will need someone to help you home, as your muscles may ache and you may feel woozy because of the anaesthetic. General anaesthetic takes 24-48 hours to wear off, so please rest for this time. Before you leave, you may be given antibiotics to take at home to prevent infection. You must complete the course as prescribed.

When you are at home

You may have mild discomfort in the biopsy area for 1-2 days. You may notice some blood in your urine for a few days. Your semen may be discoloured (pink or brown) for up to six weeks, and sometimes longer, after the biopsy. This is nothing to worry about. You should drink plenty of non-alcoholic fluids while you have blood in your urine.

Go to your local Emergency Department (A&E) if:

- your pain increases
- you have a fever higher than 100.4F (38C)
- you do not pass urine for eight hours
- you start to pass large clots of blood
- you have persistent bleeding.

If you need to visit an Emergency Department, please ask them to contact the on-call urology SHO at Guy's Hospital for advice, **t:** 020 7188 7188, bleep number 1228.

Your results

Please make sure you have an appointment for the follow-up clinic before you go home. Usually this will be in our histology clinic on a Monday afternoon, about one week after your biopsy.

Further sources of information

The Prostate Cancer Charity – Provides support and information for men with prostate cancer.
t: 0845 300 8383 **w:** www.prostate-cancer.org.uk

Macmillan Cancer Support (all numbers freephone)

t: 0808 808 2020 (information on living with cancer)

t: 0808 800 1234 (information on types of cancer and treatments)

t: 0808 801 0304 (benefits enquiry line) **w:** www.macmillan.org.uk

Dimbleby Cancer Care gives cancer support services for Guy's and St Thomas'. We have a drop-in information area staffed by specialist nurses and offer complementary therapies, psychological support and benefits advice for patients and carers. It is based in the Welcome Village of the Cancer Centre at Guy's, **t:** 020 7188 5918 **e:** DimblebyCancerCare@gstt.nhs.uk

Contact us

If you have any questions about this procedure or your results, please contact one of our prostate cancer nurse specialists, on **t:** 020 7188 7339, Monday to Friday, 8am-5pm.

Guy's and St Thomas' hospitals offer a range of cancer-related information leaflets for patients and carers, available at www.guysandstthomas.nhs.uk/cancer-leaflets. For information leaflets on other conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748, Monday to Friday, 9am-5pm

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch.

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

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