

Information: Transperineal Prostate Biopsy

Having a Transperineal Prostate Biopsy

This information sheet should help to answer some of your questions about having a transperineal prostate biopsy.

If you have further 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 located just below your bladder and in front of your rectum (back passage). 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.

Due to the special way in which the specimens are prepared for the histopathologist (specialist in examining the cells of the body) 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 requires 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 requires prostate biopsies.
- You may have a known diagnosis of prostate cancer that has not required treatment and has been on continued observation (surveillance) but the PSA has gone up or a follow up MRI scan has shown an abnormality in the prostate that requires a 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 his/her index finger.

The biopsy can find out whether 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 and across the other Hospitals of the South East London Cancer Network, including the HCA Facility at The Shard Diagnostic Centre we do prostate biopsies through the perineal skin, the area of skin between the anus and the scrotum. This is called a transperineal prostate biopsy, it is much cleaner and safer than the old fashioned approach, a trans rectal biopsy where the biopsy needle is passed through the anus and rectal wall (a dirty box) and in to the prostate (a clean box) risking a significant infection and possibly under sampling the prostate. A transperineal biopsy is recognised as a "better, safer biopsy".

Transperineal biopsy: Using an ultrasound probe (see below) placed in your back passage to visualise the prostate, we take biopsy samples of the prostate through the perineum (the skin between your scrotum and back passage the perineum), using a specially designed biopsy guide called the Precision Point Device.

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 then displayed on a screen. Because your prostate gland is in front of your rectum, a small ultrasound probe can be inserted into the rectum to create an image of your prostate gland. This is called a trans-rectal ultrasound or TRUS. This will help to guide your doctor or specialist nurse when he/she is performing the biopsy.

Giving my consent (permission)

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 can happen to one in 500 patients (0.2%). We may give you antibiotics after your biopsy to reduce this risk, but this is not always necessary because the biopsy is done through the skin, not through the rectum. However, if you develop a fever, or have pain or a burning sensation passing urine, you might have an infection and should seek attention from your nearest A&E department.
- **Blood when you pass urine:** This is not uncommon and can range from peachy coloured urine to rose or even claret coloured. It is rarely a sign of a serious problem. Increasing your fluid intake will usually help 'flush the system' and clear any bleeding. However, if there is persistent or heavy bleeding every time you pass urine you should go to your nearest A&E department.
- **Difficulty passing urine:** It is possible that the biopsy may cause an internal bruise that causes you difficulty passing urine. This can happen in less than 1 in every 200 cases (0.5%) and is more likely to happen in men who had difficulty passing urine before having the biopsy or have had a general anaesthetic or sedation. Should you have difficulty passing urine, you may require a catheter and you will need to go to your nearest A&E department for assessment. A catheter is a hollow, flexible tube that drains urine from your bladder
- **Allergic reaction:** It is possible that you may have an allergic reaction to the medication we give you. Although the risk of this 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 let the doctor or specialist nurse know if you:

- are taking any medications, particularly antibiotics or anticoagulants (medication that helps to prevent blood clots from forming), including aspirin, warfarin, clopidogrel, rivaroxaban or dipyridamole
- have allergies to any medications, including anaesthetic
- have or 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 of care 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 local or general anaesthetic. Local anaesthetic is a medication used to numb a specific area of your body. In some circumstances, particularly if you have found the simple finger examination of the prostate very uncomfortable, you may be recommended to have intravenous 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. We have found that over 80% of patients can have the 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 as an out-patient procedure or day case, which means you will be able to come in to 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 of your admission. Once you have been admitted/registered, you will see your Urologist, 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 neither 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 chair and your legs will be placed in supportive stirrups. Your doctor will examine your prostate with a finger in the back passage and use a special gel to relax your anus muscle. He will then further perfect your position you, 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 know.

An antiseptic solution will be used to clean the skin between your scrotum and your anus, which is the area through which the biopsies are taken.

You will then be given an injection of the 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 pain. The technique is about the same in terms of discomfort as the trans-rectal biopsy, which you may have had before.

The ultrasound probe is covered in gel to make the passage into the rectum easier. The probe will be in your rectum throughout the procedure so that your doctor can see your prostate. Your doctor will use a grid to target specific areas of your prostate and any abnormal areas seen on your MRI scan to map the

prostate.

The prostate biopsies are taken with a device that contains a spring-loaded needle. The needle is inserted into the prostate gland and removes a tissue sample very quickly. You will hear the click of the 'gun' as it is used to take the biopsy. Normally, between 12 to 24 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 inserted 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 prior to discharge.

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 to 48 hours to wear off, so please rest for this period of time. Before you leave, you may be given antibiotics to take at home to prevent infection. This will be decided by the doctor.

When you are at home

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

Please contact us or go to your local accident and emergency (A&E) department if:

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

Your results

Please make sure you have an appointment for the follow-up clinic before you go home. Usually this will be in our clinic the following week.

Further 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