

Having a transperineal prostate biopsy

This leaflet should help to answer some of your questions about having a transperineal prostate biopsy. If you have any further questions, please speak to a doctor or nurse 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 is where small samples of tissue are taken 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 around three weeks 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:

- 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.
- You may have had a blood test showing a high level of prostate-specific antigen (PSA). PSA is a protein that is released into your blood from your prostate gland. High levels of PSA may indicate cancer.
- You may have had previous biopsy results that came back with no evidence of cancer but your PSA blood test is still suspicious.
- You may have a known diagnosis of prostate cancer that has not required treatment and your doctor/nurse specialist might want further information to plan for possible treatments or observation.

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 prostatic hyperplasia (enlargement of the prostate), prostatitis (inflammation of the prostate, usually 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?

The biopsy may be performed in one of two ways:

- **Transrectal biopsy:** You will be lying on your side, just as when you had your prostate examined by your urologist's finger. Using an ultrasound probe in your rectum (back passage) to guide us, a special needle is inserted into your prostate gland via your rectum to take the sample cells.
- **Transperineal template biopsy:** You will normally have had a transrectal biopsy before your doctor/nurse specialist suggests using the transperineal template technique. A transperineal template biopsy is used to gain further information about your prostate over and above the information provided by a transrectal biopsy. Using an ultrasound probe in your back passage, we take samples of the prostate from a different angle through the perineum (the skin between your scrotum and back passage the perineum).

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 100 patients. We give you antibiotics after your biopsy to reduce this risk. However, if you develop a fever, or have pain or a burning sensation when you pass urine, you may have an infection and should seek medical 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 two in every 100 cases and is more likely to happen in men who had difficulty passing urine before having the biopsy. 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, rivaraxoban 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?

Template biopsy is an additional diagnostic tool to give your doctor/nurse specialist more information. It is innovative and expanding in its areas of use. The results will guide your future treatment.

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, you may have 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.

What will happen on the day of my biopsy?

The biopsy is usually carried out as a 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 to the ward, 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 general anaesthetic 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.

If you are having a local anaesthetic 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 the back passage and use a special gel to relax your anus muscle. He will then further perfect 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 then use an antiseptic solution 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/nurse specialist can see your prostate. Your doctor/nurse specialist will use a grid (similar to a battleship grid) to map your prostate. Very fine needles are then passed through the numb skin taking biopsies of your prostate in a systematic fashion through the grid.

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 24 and 38 biopsies are taken. You may feel a brief, sharp pain as the biopsy needle is inserted into the prostate gland.

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, 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. You will need to take these for a minimum of three days.

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 non-alcoholic fluids while you have blood in your urine.

Please 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.

If you need to visit your local A&E, please ask them contact the on call Urology SHO at Guy's Hospital for advice. The number is 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 prostate clinic on a Tuesday morning, about three weeks after your biopsy.

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

Contact us

If you have any questions about this procedure or your results, please contact one of our **prostate cancer nurse specialists**, on **020 7188 7339** (Monday to Friday, 8am to 5pm). Out of these hours, contact **Florence ward** on **020 7188 8818**.

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



Dimbleby Cancer Care provides 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.

Dimbleby Cancer Care is located in the Welcome Village of the Cancer Centre at Guy's **t:** 020 7188 5918 **e:** DimblebyCancerCare@gstt.nhs.uk

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 9am to 5pm, Monday to Friday

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

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

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