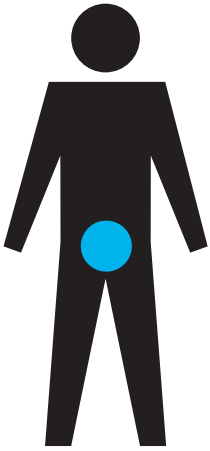
prostate scotland

SPOTLIGHT ON

Prostate biopsy



SPOTLIGHT ON

Prostate biopsy

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It is Prostate Scotland's aim to help all those affected by prostate disease and cancer, regardless of race, background, sexuality or gender identity.

This booklet is relevant for all patients who are wanting to learn more about prostate biopsies.

This will include men, trans women and some non-binary people, although we do use the terms man/men/male within this booklet.

The information that follows is meant as general guidance. As procedures may vary between health boards, ask for more advice from staff at the hospital you are attending. If you have been given specific guidance by the hospital, it is important that you follow their instructions.

The information contained in this leaflet has been developed by Prostate Scotland and reviewed by its advisory group of health professionals and patients. This leaflet is not intended to replace medical advice or seeing a doctor for specific illnesses or symptoms.

SECTION 1: INTRODUCTION

Please read this introduction first as it is relevant for all patients, regardless of which type of biopsy you will be having.

Once you have read this introduction you should turn to the section about the specific type of biopsy that you have been told you are having.

The aim of this booklet is to provide information about prostate biopsies, including why you might have been referred for one, different types of biopsies, what is likely to happen on the day and aftercare. This should help you feel more prepared for your procedure.

Section 4 on pages 11-13 contains important information that is relevant after any type of biopsy.

Undergoing investigations can be a time of uncertainty and worry for many people. It is normal to feel anxious both about the procedure itself and about the results. You can respond to that helpfully by trying to stay open and aware of your feelings; try not to bottle them up or ignore them. Talk to your partner, family or a friend about how you are feeling.

Some people also deal with this by reading about prostate disease and prostate cancer. Visit **www.prostatescotland.org.uk** to access our information resources.

What is the prostate?

The prostate is a small gland in the male reproductive system. Only those born biologically male have a prostate. It starts out about the size of a pea then slowly grows to the size of a walnut by adulthood. Around the age of 40, it may start to enlarge, and this may cause problems when passing urine.

Where is it?

The prostate is inside the pelvis, just below the bladder and in front of the rectum (back passage). It wraps around the urethra, a tube which allows urine to flow out of the bladder and semen to pass out through the penis. The prostate can't be seen or checked from outside the body.

What does the prostate do?

It supplies a thick, clear fluid that mixes with sperm to form semen. This fluid helps to nourish and protect sperm during sexual intercourse. The prostate also makes prostate specific antigen (PSA), a protein that makes semen more fluid and so helps sperm to move more easily.

Why has a prostate biopsy been suggested?

A prostate biopsy is usually done to help assess whether there is cancer in the prostate or not.

If cancer is found, the biopsy will also show how aggressive the cancer is and help the medical team decide on which treatment options may be suitable.

You have likely been referred for a prostate biopsy for one of the following reasons:

- **A raised PSA level**: It's normal to find PSA in blood as small amounts naturally leak out of the prostate. This is called your PSA level and can be checked by doing a simple blood test. Your GP will likely have taken two PSA blood tests. If your PSA level remains higher than expected it can suggest a problem in the prostate such as prostatitis, benign prostatic enlargement (BPE) or prostate cancer. An elevated PSA may not necessarily be due to cancer.
- **An abnormal digital rectal examination (DRE)**: Your GP, urologist or clinical nurse specialist (CNS) may have felt a hardened area, odd shape or unusual lump during a DRE of your prostate.
- **Previous biopsy results**: You may require a repeat biopsy to re-check results if your PSA continues to rise or if your previous biopsies showed abnormal but not cancerous cells.
- **An MRI scan has shown abnormal or equivocal areas within the prostate.** Equivocal means that the MRI has not been able to diagnose for definite whether there is cancer or not.
- **You are on active surveillance:** You may have been diagnosed with prostate cancer and have chosen to manage it with active surveillance. This may require a biopsy as part of your monitoring, along with regular PSA checks and possibly MRI scans.

What exactly is a prostate biopsy?

A prostate biopsy is a medical procedure which involves taking small samples of tissue from your prostate. These samples are then looked at carefully under a microscope in a laboratory.

Prostate biopsies are usually done in one of the following two ways:

- **Transrectal ultrasound (TRUS) prostate biopsy**: Small tissue samples are taken from your prostate by passing a needle through the wall of

the rectum, with the guidance of a small ultrasound probe placed in the rectum. This has historically been the most common way to have a biopsy in Scotland; however, transperineal biopsies are increasingly being adopted within various health boards as they reduce the potential for infection.

- **Transperineal (TP) prostate biopsy**: Small tissue samples are taken from your prostate by passing a needle through the perineum (the skin area between the scrotum and rectum). This approach also uses an ultrasound probe in the rectum to help guide the biopsy needle to the appropriate part of the prostate.

In most health boards it is standard practice to have an MRI or mpMRI scan before having a prostate biopsy. This scan can be used to target the biopsy to suspicious areas therefore making it as accurate as possible. This can be done with both TRUS and TP biopsies.

It's important to be aware that each type of biopsy may not be available in your health board area. In addition, there may be a clinical reason for your medical team to choose a particular type of biopsy.

Who does the prostate biopsy?

In some areas this will be done by a urologist or CNS. In many areas, the biopsy service is led by a CNS. Occasionally, a biopsy may be done by a radiologist (a specialist in medical imaging such as X-rays, CT and MRI).

Before having a prostate biopsy, it is important to tell the urologist or CNS:

- If you have any problems with bleeding.
- If you have an allergy to any medicines.
- If you are taking any medicines including:
  - Antibiotics.
  - Immunosuppressant drugs.
  - Blood thinning drugs, such as warfarin, clopidogrel, rivaroxaban, apixaban, edoxaban or dabigatran. You should be told to stop any blood thinners before the biopsy so you may want to ask when you can start taking these again. Only stop taking these drugs if specifically advised by the team doing the biopsy.
  - Aspirin, ibuprofen or other non-steroidal anti-inflammatory drugs.
  - Any other medicines, herbal pills or supplements.

- If you have been unwell with any other medical condition in the past few days.
- If you have an artificial heart valve.
- If you have epilepsy.
- If you have tendon problems or have previously experienced tendon pain or rupture after taking an antibiotic; this may affect which antibiotic can be safely prescribed.

Agreeing to have the biopsy

The urologist or CNS will explain more about the type of biopsy that you will have and what will happen during the biopsy.

You will have a chance to ask questions about the procedure, let them know if you have any worries and ask what the results might mean for you. You may wish to ask when you are likely to get the results and who you may need to get in touch with.

You may wish to audio-record the discussion you have before having the biopsy in case you want to check anything when you get home.

You must always get permission from your medical team before making a recording.

After agreeing to go ahead with the biopsy you will need to sign a consent form.

Now turn to the section about the biopsy you will be having:

- **TRUS prostate biopsy – page 5**
- **TP prostate biopsy – page 8**

SECTION 2: TRUS PROSTATE BIOPSY

This involves taking small tissue samples from your prostate with a needle through the wall of the rectum, with the guidance of a small ultrasound probe placed in the rectum. Anaesthetic is administered first.

Preparing for your biopsy

- You do not usually need to fast before a TRUS biopsy. You should have breakfast or lunch as usual.
- You can usually take your other medications as normal on the day of your biopsy, except those to thin your blood (see page 3 for more details). However, always check this with the team looking after you as you may be asked to stop other medications such as immunosuppressant drugs or other antibiotics.
- You will likely be told to stop taking your blood thinning medicine before your biopsy, but it's important that you don't stop taking these without first asking advice from your CNS, urologist or GP. Always follow their guidance.
- If you are unsure what type of medication you are taking, it may be helpful to write down a list and show it to the team performing the biopsy.
- You may be asked to give a urine sample before the procedure.
- To reduce the risk of infection, you may be given an antibiotic prior to the procedure. In some circumstances you may also be given antibiotics after the procedure or a short course of antibiotics to take at home afterwards.

Having your biopsy

- The procedure will usually be done in the day surgery unit or outpatient department of the hospital.
- You will be asked to lie on your left side with your knees bent up towards your chest. Try to relax as much as possible.
- The urologist or CNS will slide a gloved finger into your rectum to examine your prostate.
- In some health boards an iodine solution may be put into the rectum as it may lower the risk of infection (unless you have any allergies to this).
- A small ultrasound probe, about the size of a thumb and coated with gel, will be gently passed into your rectum. This instrument works by

releasing sound waves. The echoes from the sound waves give a clear image of the shape and size of your prostate on the ultrasound screen.

- An injection of local anaesthetic is given around the prostate to reduce pain and discomfort.
- The ultrasound image will help the urologist or CNS guide the biopsy device into the prostate to take small samples of tissue from your prostate. They may also use your previous MRI scan to guide the device.
- You might feel a short, sharp pain or stinging, although usually the local anaesthetic stops you feeling any pain. Tell the urologist or CNS if you are feeling very uncomfortable as they may be able to give you some additional local anaesthetic.
- You will hear a 'clicking' noise as the samples are taken.
- The amount of core samples taken will be decided by your urologist or CNS before the biopsy (a core sample means that a very fine hollow needle is gently pushed into the prostate; when it is pulled out, there will be a small prostate tissue sample inside the needle).
- The procedure usually takes between 10–20 minutes and you can expect to be in hospital for about 2 hours in total.

After your biopsy and before going home

- After the biopsy, you may feel lightheaded, so take your time and get up slowly. If you continue to feel faint or unwell, you should let the nurses know.
- You will likely go back to a waiting area and be given something to drink.
- Before you go home, you will be asked to go to the toilet to make sure that you can pass urine and that it's not too bloodstained.
- You may be given a date to come back to see the urologist or CNS for your results. If this isn't done you may wish to ask how you will get your results.
- If you have been told to stop taking your regular medication, check when you should start taking it again.
- You may be given a short course of antibiotics. Make sure you follow the instructions and finish the course.

Potential side-effects

Infection: There is a risk of developing an infection after a TRUS biopsy. There is more information about the signs of infection and what you can do on page 11.

Blood in your urine, semen and/or bowel movements: This is quite common and usually clears up within a few weeks. Semen may remain bloodstained for about 12 weeks.

Pain or bruising in the prostate, perineum and/or rectum: Your CNS or GP can advise on painkillers to help with this.

Urinary retention: If you are not able to pass urine at all (called retention of urine) get in touch with your GP, CNS or NHS 24. You may need to have a catheter for a short time.

Please now turn to pages 11-13 to read more about going home, aftercare, getting your results and why it might be necessary to have another biopsy in future.

SECTION 3: TP PROSTATE BIOPSY

This involves taking small tissue samples from your prostate with a needle through the perineum, with the guidance of a small ultrasound probe placed in the rectum. Anaesthetic is administered first.

TP biopsy is becoming an increasingly common way to have a biopsy as the chance of developing an infection is lower and it allows access to areas in the prostate that might be difficult to reach with the transrectal approach.

Preparing for your biopsy

- You do not usually need to fast when coming in for your TP biopsy if it's done under local anaesthetic. You should have breakfast or lunch as usual.
- If your procedure is to be done under a general anaesthetic you will need to follow the guidance on fasting from your medical team.
- You can usually take your other medications as normal on the day of your biopsy, except those to thin your blood (see page 3 for more details). However, always check this with the team looking after you as you may be asked to stop other medications such as immunosuppressant drugs or other antibiotics.
- You will likely be told to stop taking your blood thinning medicine before your biopsy, but it's important that you don't stop taking these without first asking advice from your CNS, urologist or GP. Always follow their guidance.
- If you are unsure what type of medication you are taking, it may be helpful to write down a list and show it to the team performing the biopsy.
- You may be asked to give a urine sample before the procedure.
- Your medical team will decide if you need to have an antibiotic before or after the procedure.

Having your biopsy

- The procedure will usually be done in the day surgery unit or outpatient department of the hospital.
- You will be asked to lie on a couch with your legs apart and slightly raised with special supports. This is to give the urologist or CNS access to your perineum.

- Your scrotum may be taped up and away from your perineum.
- The urologist or CNS will slide a gloved finger into your rectum to examine your prostate.
- A small ultrasound probe, about the size of a thumb and coated with gel, will be gently passed into your rectum. This instrument works by releasing sound waves. The echoes from the sound waves give a clear image of the shape and size of your prostate on the ultrasound screen.
- You will likely be given local anaesthetic in 2 stages: a 1st injection into the skin of your perineum and a 2nd injection to numb the nerves around your prostate. You might find that these will sting for a short time but very quickly the area will be numbed.
- The ultrasound image will help the urologist or CNS guide the biopsy device through the perineum and into the prostate to take small samples of tissue from your prostate. They may also use your previous MRI scan to guide the device.
- You might feel a short, sharp pain or stinging, although usually the local anaesthetic stops you feeling any pain. Tell the urologist or CNS if you are feeling very uncomfortable as they may be able to give you some additional local anaesthetic.
- You will hear a 'clicking' noise as the samples are taken.
- The amount of core samples taken will be decided by your urologist or CNS before the biopsy (a core sample means that a very fine hollow needle is gently pushed into the prostate; when it is pulled out, there will be a small prostate tissue sample inside the needle).
- The procedure usually takes between 20–30 minutes and you can expect to be in hospital for about 2–3 hours in total.

After your biopsy and before going home

- After the biopsy, you may feel lightheaded, so take your time and get up slowly. If you continue to feel faint or unwell, you should let the nurses know.
- You may notice some very slight bleeding where the device went through the perineum. You may be given a pad to put into your underwear for this.
- You will likely go back to a waiting area and be given something to drink.

- Before you go home, you will be asked to go to the toilet to make sure that you can pass urine and that it's not too bloodstained.
- You may be given a date to come back to see the urologist or CNS for your results. If this isn't done you may wish to ask how you will get your results.
- If you have been told to stop taking your regular medication, check when you should start taking it again.
- You may be given a short course of antibiotics. Make sure you follow the instructions and finish the course.

Potential side-effects

Infection: A very small number of men are at risk of developing an infection after TP biopsy. There is more information about the signs of infection and what you should do on page 11.

Blood in your urine, semen and/or bowel movements: This is quite common and usually clears up within a few weeks. Semen may remain bloodstained for about 12 weeks.

Pain or bruising in the prostate, perineum and/or rectum: Your CNS or GP can advise on painkillers to help with this.

Urinary retention: If you are not able to pass urine at all (called retention of urine) get in touch with your GP, CNS or NHS 24. You may need to have a catheter for a short time.

Please now turn to pages 11-13 to read more about going home, aftercare, getting your results and why it might be necessary to have another biopsy in future.

SECTION 4: IMPORTANT INFORMATION AFTER ANY TYPE OF BIOPSY

Possible complications

Infection

After any type of biopsy, you may be at risk of developing an infection. This is less likely if you have had a TP biopsy.

Any kind of infection needs treatment, so it is important that you contact your GP, CNS or NHS 24 urgently if you have any of the following symptoms:

- A burning feeling when passing urine or a sense of wishing to pass urine more frequently than usual.
- Cloudy urine with an unpleasant smell.
- Severe pain.
- A high temperature over 37.5°C.
- Feeling hot, cold, shivery, or achy.
- Feeling unwell like you are coming down with flu.

Urinary retention

You should contact your GP, CNS or NHS 24 urgently if you are having difficulty passing urine or are unable to pass urine at all (this is called urinary retention).

Significant bleeding

Some bleeding is normal following a biopsy, but you should contact your GP, CNS or NHS 24 urgently if you:

- Pass a lot of blood from your rectum.
- Pass a lot of blood clots in your urine or semen.

Going home

- As you might feel uncomfortable or lightheaded, it is advised to have someone else drive you home following your biopsy.
- If you have had a general anaesthetic, ask the urologist, CNS or ward staff for advice on driving. You may need to check with your insurance company about your cover after an anaesthetic.
- If you are given antibiotics to take at home, it's important that you read the instructions carefully and make sure that you finish the full course of tablets.

- If you are in pain, you may be able to take over-the-counter painkillers such as paracetamol. Ask the urologist, CNS or pharmacist if you are unsure what you can take.
- If you are on any blood thinning tablets, ask the urologist, CNS or GP when you can start taking these again.
- Take it easy for the rest of the day.
- Keep well hydrated after your biopsy, unless you have been advised to restrict your fluid intake. This may help make passing urine more comfortable.
- Get back to your normal activities as soon as you feel up to it, although you may be advised to avoid energetic exercise and heavy lifting for the first few days.
- You can probably return to work the following day, unless you have a very strenuous job, or a job that requires heavy lifting. You should inform the team so a sick line can be provided where necessary.
- You can return to sexual activity after a few days depending on pain, bleeding, bruising and individual comfort. Ejaculation may be painful to start with, and semen may remain bloodstained for about 12 weeks.
- If you receive anal sex, you may want to consider the following guidelines after checking with your medical team and depending on pain, bleeding, bruising and individual comfort:
    - Waiting for 2 weeks after a TRUS. Having anal sex within this time may cause bleeding, pain or increase the risk of infection.
    - Waiting for 1 week after a TP biopsy. Having anal sex within this time may not allow bruising to settle and potentially make intercourse painful.

If you have any worries following your biopsy speak to your urologist, CNS or GP for more guidance.

What happens after the biopsy?

The samples of tissue are sent to a laboratory to be carefully examined for any signs of prostate cancer.

The results will usually be sent to your urologist, CNS or GP within 1–3 weeks. This may vary between health board areas so ask the urologist or CNS who did the biopsy when you are likely to get your results. If you don't

hear after 3 weeks, you may wish to phone the CNS at the hospital to ask about your results.

This may be an anxious time both for you and your family. You can respond to that helpfully by trying to stay open and aware of your feelings; try not to bottle them up or ignore them. Talk to your partner, family or a friend about how you are feeling.

Some men deal with this by reading about prostate disease and prostate cancer. Visit **www.prostatescotland.org.uk** to access our information resources.

After getting the results, you will likely be given an appointment to see your urologist or CNS to discuss a possible diagnosis and the next steps.

Future biopsies

Some men only need one prostate biopsy, but in some circumstances, it may be necessary to have another one. For example:

- Your biopsy didn't show any cancer, but your DRE found that your prostate was not a normal shape or size or there were some hardened areas or lumps.
- Your biopsy didn't show any cancer, but your PSA level is continuing to rise.
- You may have a TP biopsy if you have already had one or more TRUS biopsies and these have not shown why your PSA is raised.
- You are being closely monitored because of a family history of prostate cancer.
- Abnormal, but not cancerous cells, have been found in your prostate during your biopsy.
- You are on active surveillance to manage your prostate cancer, so that any cell changes in the prostate can be picked up. Your urologist or CNS will also request that you have regular blood tests; they will discuss the frequency of these with you.
- Your biopsy did not show cancer, but the MRI showed suspicious areas.

If you have any questions or concerns about your biopsy and what your results mean speak to your GP, urologist or CNS.

PROSTATE SCOTLAND

Our Work

All our awareness materials, introductory guides, explanatory guides and 'Spotlight on' guides are available free of charge to patients and their families and all healthcare settings. If you found the booklet helpful, you can help us reach many more people with awareness and information about prostate disease and prostate cancer by:

- Obtaining and wearing a Prostate Scotland badge.
- Volunteering some of your time.
- Taking part in or organising a fundraising event or donating.

This booklet has been produced by Prostate Scotland with input and advice from its expert advisory group PAGES. All PAGES members have been asked to declare any potential conflict of interests. Further details can be requested be emailing jennifer.fallon@prostatescotland.org.uk.

PAGES members:

Susan Adamson, Advanced Practitioner Radiographer, Western General Hospital, Edinburgh.

David Astill, Patient Representative.

Derek Brown, Patient Representative.

Brian Corr, Clinical Nurse Specialist, Raigmore Hospital, Inverness.

Andrew Dunlop, GP Principal, East Calder Medical Practice.

David Gillanders, Senior Lecturer, Clinical & Health Psychology, University of Edinburgh.

Camila Gonzalez, Advanced Physiotherapist Practitioner, Western General Hospital, Edinburgh.

Stephanie Guillaumier, Consultant Urologist, NHS Fife.

Sioned Hancock, Advanced Physiotherapist Practitioner, Western General Hospital, Edinburgh.

Raymond Kabalo, Patient Representative.

Angus Killean, Consultant Oncologist, Western General Hospital, Edinburgh.

Scott Little, Clinical Nurse Specialist, Western General Hospital, Edinburgh.

Leann McLaughlin, Clinical Nurse Specialist, Inverclyde Royal Hospital, Greenock.

Jacqueline Pursey, MRI Radiographer, NHS Glasgow.

Bill Taylor, Advanced Practice Physiotherapist, Taylor Physiotherapy, Edinburgh.

Ben Thomas, Consultant Urologist, Western General, Edinburgh / Borders General Hospital (Chair of PAGES)

Prostate Scotland staff:

Jennifer Fallon, Information Coordinator; Alison Wright, CEO.

Contact Us

Prostate Scotland, 89-91 Morrison Street, Edinburgh, EH3 8BU

Tel: 0131 603 8660

Email: info@prostatescotland.org.uk

www.prostatescotland.org.uk

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