Having a transrectal ultrasound scan and biopsy

Information for patients

What is an ultrasound scan?

Sound travels in waves. Ultrasound is sound that travels at a higher frequency than we can hear. Ultrasound examinations (scans) are done by building up pictures from the return of sound waves as they bounce back from any resistance they meet. The sound waves can be directed to and bounced back from the surfaces of various structures within the body to form pictures on a television screen.

The ultrasound waves are sent to and from the body by moving a hand-held sensor (similar to microphone) over the surface of the skin of the area to be examined. Images (pictures) are taken for interpretation by doctors and senior radiographers trained in this speciality.

Ultrasound scans can be used to diagnose a variety of conditions. They are commonly used to scan babies during pregnancy. Ultrasound scans do not involve x-rays.

Many hospitals are using transrectal ultrasound scanning of the prostate (also known as ‘TRUSP’) to scan the prostate. Much clearer pictures are obtained using this method and a more accurate diagnosis can then be made.

The doctor will place a transrectal ultrasound probe into your back passage. Images (pictures) of the prostate are taken for interpretation by doctors and senior radiographers trained in this speciality.

Why do I need to have this done?

You may have had a special blood test which has found higher than the ‘normal’ level of prostate specific antigen (PSA). PSA is a protein that is produced by the prostate. The PSA test is used to try to detect early prostate cancer. However, a raised PSA test result may also be due to other causes, including an enlarged prostate due to ageing, a urine infection or a prostate infection.

You may also have had an examination of the prostate by your doctor via your back passage and your prostate may have felt abnormal. This can sometimes indicate prostate cancer or may be due to harmless conditions such as infection or stones in the prostate.
What is the biopsy for?

It is sometimes necessary to take a biopsy (tissue sample) from the prostate to help with the diagnosis. This is done using the ultrasound probe to guide the special biopsy needle to the correct part of the prostate.

What are the risks and benefits associated with these tests?

The benefit of an ultrasound scan is that it is a relatively quick procedure, which gives your doctors detailed information about the area being examined. As ultrasound is made up of sound waves. There are no risks or side effects associated with this test, even if you have a pacemaker or other electronic implant.

The benefit of a biopsy is that it is a very safe and quick procedure, which will often provide important information about your condition. As with any biopsy, there are some risks and complications that can arise:

- 50 per cent risk of haematuria (blood in the urine) – this should be light and last up to 48 hours
- 20 per cent risk of haemospermia (blood in the semen) – this may last for a few weeks
- 2.5 per cent risk of temporary problems passing urine
- one per cent risk of bleeding from the rectum (back passage) – this should be light and last up to 48 hours
- Less than one per cent risk of urine retention
- Less than one per cent risk of infection

The doctor performing the procedure will discuss these risk factors with you before starting and will be happy to answer any questions you may have.

Are there any alternatives to these tests?

An ultrasound scan with or without biopsy will only have been requested by your doctor if they feel that this is the best way to find out more information about your condition.

Other tests, such as CT or MRI scans, can also give information, but a CT scan requires x-rays which can be harmful. An MRI scan is not always suitable for all patients.

Will it hurt?

No. However, if you feel any discomfort, please tell the person doing the scan.

Is there anything I need to do before my appointment?

If you are having a biopsy, the hospital doctor who requested it will have already prescribed a short course of antibiotics to help reduce the risk of infection caused by the biopsy. Please note that if you do not take the first dose of your antibiotics as instructed, we will cancel your appointment.
What if I cannot keep my appointment?

Please contact us as soon as possible. We can then offer this date to another patient and agree
a new appointment date and time with you.

You will find the appropriate telephone number on your appointment letter.

What happens on the day of my appointment?

Your doctor should have prescribed you a five-day course of antibiotics to help protect you
against infection. You should take the first dose three hours before your appointment time.

If you are already staying in hospital as an inpatient, you will be brought down from the ward to
the imaging (x-ray) department. If you are having the scan as an outpatient, we will ask you to
come straight to the imaging department and report to the reception desk.

We will discuss the procedure with you in detail and ask you to sign a consent form. This is to
make sure you understand the risks and benefits of having the procedure.

You may be asked to undress and change into a hospital gown. There is no need to remove
jewellery. We will ask you to lie down on an examination couch on your left side, with your
knees drawn up. The lights will be dimmed so that the pictures on the television screen can be
seen more clearly.

The doctor will first examine you internally and then insert a special sensor (known as a
‘transrectal ultrasound probe’) into your rectum (back passage). The sensor is about the same
width as a finger, but is longer. For reasons of hygiene, it is covered with a disposable latex
sheet (similar to a condom) and lubricating jelly is placed onto it to reduce discomfort.

Please let us know if you have a latex allergy, so that we can use an alternative probe cover if
necessary.

The sensor is inserted about two inches into the rectum and then turned gently from left to right
to help produce better pictures. This part of the scan usually takes about ten minutes and most
men do not find it painful or uncomfortable.

If you are having the biopsy as well as the scan, the doctor will then take 6 to 12 samples of
tissue from your prostate using a special needle attached to the probe.

The biopsies are performed under local anaesthetic which is given via the probe. The local
anaesthetic may cause a brief stinging sensation as it is given. When the anaesthetic wears off
(three to four hours later) you may experience a dull ache around the back passage.

What happens afterwards?

The sensor will be gently removed and you will be able to get dressed. If you had the scan only,
you will be able to go home.

If you had a biopsy, it is very important that you complete the course of antibiotics that the
hospital doctor prescribed for you as this will help prevent infection.

You may wish to take things easy for the rest of the day, but should be able to resume your
normal activities after the test. Please drink plenty of water (at least two or three pints) for the
rest of the day, and three to four pints of water for the next two days. This will also help prevent infection.

Any pain or discomfort you experience after your appointment can be treated with simple painkillers, such as paracetamol. Please avoid taking painkillers such as aspirin or ibuprofen (Nurofen®) as they may cause bleeding.

If your scan was done as an outpatient appointment, you will be allowed to go home. You will get the results of the scan when you next see the hospital doctor.

If your scan was done as an inpatient, we will take you back to the ward.

The person doing the scan is not always able to give you the results immediately. The results of the scan and biopsy take up to one week to process and your doctor will discuss them with you at your next appointment in the urology outpatient clinic.

Is there anything I need to watch out for at home?

After the scan, you may notice blood in your urine or from your back passage for the next few days. This is normal and nothing to worry about. You may also notice blood in your semen, which may take a few weeks to clear. Please contact your GP for advice if you still have blood in your urine, from your back passage or in your semen after this time.

If the bleeding becomes heavy or you notice blood clots, please either contact your GP or go to your nearest accident and emergency (casualty) department.

If you get any pain or burning when you pass urine, you may have a urine infection and will need to see your GP for some extra antibiotics.

If you become shivery, have a fever or high temperature, or feel generally unwell, please contact your GP or go to your nearest accident and emergency (casualty) department immediately as you may have an infection.

The scan and biopsies may cause slight inflammation of the prostate gland, making it difficult for you to pass urine. This should get better within a few days. If you are unable to pass urine at all, please go to your nearest A&E department as soon as possible.

Contact details

Please do not hesitate to contact our imaging departments if you have any queries or concerns:

- **Charing Cross Hospital**: Fulham Palace Road, London W6 8RF
  Telephone: 020 3311 1863

- **Hammersmith Hospital**: Du Cane Road, London W12 0HS
  Telephone: 020 3313 3389

How do I get to the hospital?

You are advised to travel, if possible, by public transport when visiting our hospitals. Car parking is severely limited and it may be difficult to find a place to park near the hospital.

The nearest tube stations to Charing Cross Hospital are Hammersmith (District, Piccadilly and Hammersmith and City lines) and Barons Court (District and Piccadilly lines). Buses that stop outside the hospital are numbers 190, 211, 220 and 295.
The nearest tube stations for Hammersmith Hospital are East Acton and White City (both on the Central Line) and Wood Lane (Hammersmith & City Line). Buses that stop outside the hospital are numbers 7, 70, 72, 272 and 283.

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any suggestions or comments about your visit, please either speak to a member of staff or contact the patient advice and liaison service (PALS) on 020 3313 0088 (Charing Cross, Hammersmith and Queen Charlotte’s & Chelsea hospitals), or 020 3312 7777 (St Mary’s and Western Eye hospitals). You can also email PALS at pals@imperial.nhs.uk. The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to express your concerns in writing to:

Complaints department
Fourth floor
Salton House
St Mary’s Hospital
Praed Street
London W2 1NY

Alternative formats

This leaflet can be provided on request in large print, as a sound recording, in Braille, or in alternative languages. Please contact the communications team on 020 3312 5592.

Wi-fi

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Imaging department
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