

Overview

What is a TRUS biopsy?

This is an ultrasound examination performed through the rectum (back passage), looking at the prostate gland. During the examination, multiple biopsies (tissue samples) are taken from the prostate. The tissue samples we obtain during the procedure are later examined under the microscope for prostate cancer.

Why are we doing the biopsy?

Your urology doctor is concerned about cancer within the prostate gland. This may be because of a raised PSA level in the blood, or because the prostate felt abnormal during a rectal examination. An MRI of the prostate may also have shown some abnormal regions (which we may directly sample during the biopsy).

Preparing For The Procedure

In the weeks leading up to TRUS biopsy

If you are taking any blood-thinning medicines, you should let your doctors know - these will need to be stopped before the procedure. These medicines include aspirin, dipyridamole, Plavix (clopidogrel), blood-thinning injections (e.g. heparin, Clexane and Fragmin), warfarin and newer medicines such as rivaroxaban. If you are unsure please ask a doctor or nurse.

Some patients on blood-thinning medicines will need blood tests before the biopsy. Most patients however, will not require any blood tests.

You will be taking antibiotics to reduce the risk of infection from the procedure. Please make sure you have collected a 5-day course of ciprofloxacin (500 mg twice a day) from your pharmacist well in advance, ready to start the day before the biopsy. Your urologist or GP will give you a prescription for this.

The day before TRUS biopsy

To reduce the risk of infections, you should start the course of antibiotics the night before your biopsy. Therefore you should have had two doses (the night before and the morning of the biopsy) before the biopsy is performed. Infection is a serious complication of this procedure, and therefore it is very important that you take the antibiotics.

Remember:

- *You will need to stop blood-thinning medicines before the biopsy.*
- *You must take 2 doses of antibiotics before the procedure.*

On The Day Of TRUS Biopsy

Prior to the biopsy

You may eat as normal on the morning of the procedure.

As mentioned above, please ensure you have taken your morning dose of antibiotic (ciprofloxacin 500 mg).

Please arrive at the radiology department half an hour before your appointment. This will allow plenty of time to get changed and prepare for the procedure.

Once changed, you will be taken to the ultrasound room to meet the radiology doctor who will perform the TRUS biopsy. The radiology doctor will explain the procedure to you and discuss the benefits and risks, before asking you to sign a consent form. You will have time to ask any questions.

The procedure itself takes roughly 10 minutes, though you will be in the room for roughly 30 minutes, allowing time for preparation, explanation and consent.

What happens during the procedure?

You will be asked to lie down on your left side, on the examination couch. A small ultrasound probe will be placed into your rectum (back passage) - this may cause some discomfort including an urge to urinate, but is usually not painful. Local anaesthetic is injected through the rectum, around the prostate - this may sting slightly but the area will quickly become numb in preparation for the biopsy.

A small needle is used to take the biopsies - this makes a loud clicking noise each time a biopsy is taken, but the biopsy itself should not be painful. We will usually take between 8 - 13 biopsies.

The probe is then removed and antibiotic suppositories are placed in the rectum. These will be absorbed into the body over the next hour or so.

Benefits & Risks Of TRUS Biopsy

Benefits of TRUS biopsy

- **Detection of prostate cancer.** The tissue samples we obtain during the procedure are directly examined under a microscope to look for prostate cancer.
- **Grading of disease.** If we do find cancer in the tissue samples, it can be analysed to see how aggressive the disease behaves. This allows your doctors to tailor your treatment accordingly.

Risks of TRUS biopsy

- **Discomfort.** There may be some discomfort during the procedure (see above) but this is minimised by the use of local anaesthetic. There may also be mild pelvic discomfort following the procedure, but this usually settles with regular paracetamol.
- **Difficulty passing urine immediately following the biopsy (urine retention).**
- **Bleeding.**
 - Most patients will notice blood in their urine, especially just after the procedure, but this should settle by 5 days.
 - It is usual to see some blood or clots the first time you open your bowels after the biopsy, but this should not be too severe. Again this should settle within 5 days.
 - You may notice blood in your semen and this can last up to 6 weeks.
 - ***If any bleeding is particularly heavy or worsening (rather than improving), please contact a doctor urgently. Very rarely (under 1%), the bleeding may require hospitalisation and transfusion.***
- **Infection.**
 - Recent worldwide studies have shown that up to 4% of patients develop an infection following TRUS biopsy, but our own local data suggests a rate of 1-2%. It can occasionally be very serious, and deaths have been described (although this is exceedingly rare, under 1 in 10,000).
 - ***Therefore it is very important that you complete your course of antibiotics and also see a doctor urgently (within the same day) if you feel unwell / flu-like, develop a fever or have pain and burning when you urinate.***
 - In the majority of cases, treatment of infection requires only a change of antibiotics, but occasionally you will need to be admitted for intravenous antibiotics.

Following The Procedure

- You will be monitored in the department for 1-2 hours following TRUS biopsy. You will be asked to drink water to fill your bladder and then urinate – this is to ensure you do not have any problems passing urine, and that any bleeding is not too heavy. If all is well, you can then go home.
- We recommend you rest for the remainder of the day and avoid strenuous activity (e.g. going to the gym, straining or cycling) for 3 days.
- Please ensure you take your antibiotics twice a day (including that night) to complete the 5-day course. **This is very important.** Also please do not drink alcohol for 24 hours after biopsy as this interacts with the suppository antibiotic given at the end of the procedure.
- Please watch out for complications following the procedure (see section above on “Risks of TRUS biopsy”) and see a doctor if there are any problems.
- The results of the biopsy are normally available in 1-2 weeks. Please arrange to see your urologist after this time to discuss the results, if you do not already have an appointment.

Consult A Doctor Urgently If:

- ***Any bleeding is particularly heavy or worsening (rather than improving).***
- ***If you think you may be developing an infection (see above).***