

A patient's guide to

undergoing investigations

This leaflet explains why you have been referred to us and what you should expect to happen whilst you are here. Please take a moment to read this information. If you have any questions, please contact your key worker/specialist nurse.

You have been referred to the Royal National Orthopaedic Hospital because you have a growth in your bone or soft tissues (muscle, fatty tissue etc). You will be asked to undergo a number of tests in order to find out the nature of the growth (tumour) and whether it is benign or malignant (cancerous). This is important to establish as it will determine the type of treatment that you will need. You may bring a friend or relative with you when attending the hospital for any tests or appointments.

Before deciding which investigations you will need, a team of professionals will meet together to discuss your case. This team is called a multi-disciplinary team (MDT) and consists of a range of staff members, who are experts in different areas of medicine, such as doctors, nurses, radiologists and pathologists. Following this meeting we will contact you by telephone to advise you of the investigations we plan to do.

If you need help getting to any of your hospital appointments, please contact the Transport Department on **0207 510 4637**.

You may have any of the following investigations:

Plain X-ray

This is a common and simple procedure which will give the doctors useful images of the growth. You will be positioned by the radiographer according to which body part is being x-rayed. The radiographer will then go behind the control panel and take the x-ray. The whole procedure will vary in time depending on the area under examination.

Radiation does carry a small risk, so we exercise strict protocols for your protection. Please inform the radiographer if you think you could be pregnant (for the wellbeing of your baby).

MRI (Magnetic Resonance Imaging)

An MRI scan uses magnetism to show us exactly where the growth is, and what anatomical structures are involved, for example, muscle, nerves and blood vessels. All metal objects should be removed from your body prior to the scan. For your safety, please make sure we know about pacemakers or other implants.

You will be asked to lie still on the machine couch and then moved into the middle of a magnetic cylinder where different sequences (and noises) are applied. The procedure can take up to an hour and is completely painless but rather noisy. If your tumour is painful, you may take painkillers beforehand.

Ultrasound scan

Ultrasound scans use sound waves, which are converted by a computer to produce pictures of soft tissues. You will be asked to lie on a couch and a jelly-like substance will be squeezed on to the part of your body to be scanned. A small hand-held ultrasound probe will be moved across your skin. The test only lasts a few minutes and will be painless.

CT (Computerised Tomography)

If we suspect that your tumour might be cancerous, you may have a CT scan of your chest to look for abnormalities. This is because some types of tumours can also show in your lungs.

A CT scan uses X-rays to take pictures of your body from different angles. A computer then puts these pictures together to give a series of cross sections or 'slices'. A CT scanner is a large machine shaped like a doughnut. You will be asked to lie on a couch that slides forwards and backwards through the scanner, while pictures are taken. At some point during the scan you may be asked to hold your breath for a few seconds.

Again, please inform the radiographer if you think you could be pregnant.

Biopsy

A biopsy involves removing a very small piece of tissue from the tumour, through a needle. The radiologist (doctor) uses ultrasound, CT or fluoroscopy to guide them to the most active part of the tumour, in order to obtain a representative sample of tissue. The biopsy will be performed either with local anaesthetic, or under a general anaesthetic (while you are asleep).

Please let us know if you take warfarin or any other medication that thins your blood. This may need to be stopped a few days before the biopsy and will have to be managed carefully. In order for the biopsy to be performed safely, your INR (measurement of blood clotting) must be 1.3 or below. Please get in touch with a specialist nurse to discuss this further.

If your biopsy is performed under local anaesthetic, you will be given an appointment time, and the procedure will take up to an hour. You will then be able to return home.

If your biopsy is performed under a general anaesthetic, you will be admitted to a ward and will remain in hospital almost the whole day. You will need to stop eating at midnight prior to the procedure and can drink clear fluid (no milk) until 6am. You will be asked to arrive at the hospital by 7am, so that you can meet the nurses and the anaesthetist prior to the procedure. You will have the opportunity to discuss the procedure further and will be asked to sign a consent form.

This biopsy procedure will take up to an hour and you will return to the ward afterwards to recover. Once you are eating and drinking, passing urine normally, and feeling well in yourself, you will be able to go home. It is advisable for someone to collect you and travel home with you. It is also advisable to have someone with you overnight in case you feel unwell.

It is normal for there to be some swelling and discomfort after the biopsy. This may last up to a week. The biopsy site will be covered with a small dressing. This should be kept dry, and ideally remain in place for five days.

Bone scan

A bone scan enables us to check the rest of your body for bone abnormalities. If your tumour only involves soft tissue you may not need this scan.

You will start by having a radioactive substance injected into your bloodstream, which travels through the blood and collects in your bones. You only need a small amount of this radioactive substance, not enough to do you any harm. After the injection, you will be asked to drink plenty of fluids and to keep emptying your bladder. After three hours, you will be asked to lie on an X-ray couch for the scan. A camera will then take pictures of the whole of your skeleton. The actual scan takes about 45 minutes.

Measurement films

This is a scan that is only necessary for patients who undergo surgery for a bone tumour. During the operation it is sometimes necessary to remove part of the bone along with the tumour. If this is the case, it MAY be replaced by an internal prosthetic (artificial) bone or joint, and this prosthesis may need to be custom made to fit you.

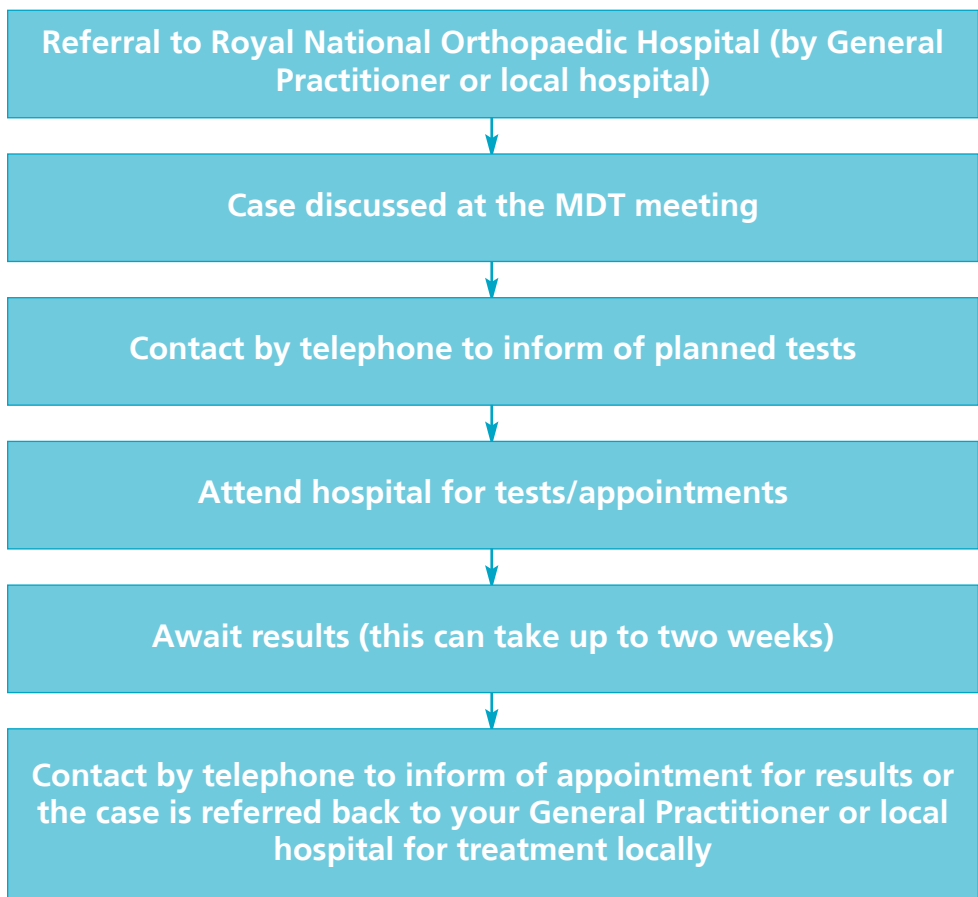
In order for the prosthesis to be made, accurate measurements are needed of your bones. This is achieved through a series of X-rays called 'measurement films'. The films are taken in the X-ray Department, and can take up to 45 minutes.

Waiting for results

The results of your tests can take up to two weeks to come through. When they are ready we will discuss your case in our MDT meeting to determine a plan for your treatment. Following the meeting, the recommendations are recorded in your notes and we will contact you by telephone. It is likely that an appointment will be made with your consultant and specialist nurse to discuss the plan with you. You may bring a friend or relative with you to this appointment. Please let us know if you need us to book an interpreter. In some cases it may be more appropriate to refer you to another specialist team, in which case we will write to you to advise you of this.

We understand that waiting for results can be an anxious time, so feel free to get in touch with one of the specialist nurses if you need to.

Referral pathway





Your notes

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If you have any comments about this leaflet or would like it translated into another language/large print, please contact the Clinical Governance Department on 020 8909 5439/5717.

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