

# Radiological Tests

## X-rays

To look at bones and the joints.

## MRI Scan

This scan provides detailed images of bone and soft tissues, such as lining of the joint, tendons and muscles. It shows up increased levels of inflammation and any tissue damage.

The scan takes approximately 20 minutes and requires the patient to lie still within the tunnel of the machine.

To avoid boredom and block out some of the noise, young patients often listen to music via headphones or chat to their parents who can sit at the end of the tunnel. Because of the need to lie very still young children will have this scan under a general anaesthetic.

There are no X-rays involved. Instead images are taken using magnets which means patients must not have metal objects with them. Sometimes a dye called gadolinium is injected via a cannula (tube) in to the vein to help show up inflammation.

[MRI information sheet](#) (pdf; 29 KB)

## Ultrasound Scan

This is the scan used in hospital to assess pregnant mothers, but can also be used to assess inflammation within joints or elsewhere.

It is a simple scan, often performed during clinic, that gives extra information about inflammation and any tissue damage.

A cold gel is applied to the area to be scanned and a probe is put on the skin to send sound waves into the tissues. A black and white fuzzy picture is produced on a TV screen which the radiologist (x-ray doctor) can interpret.

## Bone Scan

This is a scan used to look for increased bone turnover. It can be used to help assess if a replacement component is loose or possibly infected.

A small amount of radioactive material is injected into your vein. It is attached to a compound that is taken up by active bone cells. A special scanner takes pictures of you and highlights the areas of high bone turnover.

[Bone scan information sheet.](#)

## DEXA

This scan assesses the density or strength of bones. It may be used if:

- A patient has been on a lot of steroids
- There have been multiple fractures
- There are other reasons why reduced bone strength is suspected.

The patient needs to lie still within the scanner while several x-rays are used to measure the bone density.

## **Magnetic Resonance Angiography (MRA)**

Magnetic Resonance Angiography is a special form of MRI scan that looks at blood vessels.

A cannula (tube) is placed into the blood vessels via the groin and a special dye injected to show the outline of the vessels.

## **Angiography**

This is another scan to look at blood vessels. It uses x-rays.

A tube is inserted into the blood vessel in the groin and passed up to the blood vessels that need to be examined. A dye is injected to show the outline of the vessels.

## **CT scan**

This is a detailed scan similar to an MRI, but using X-rays.

It is used in rheumatology to assess inflammation of the lungs and sometimes the structure of the spine.