Multi-Parametric Mri (Mpmri)

What Is An Mri Scan?

Magnetic Resonance Imaging (MRI) is a non-invasive imaging technique that uses strong magnetic fields and radio waves to produce detailed 3D images of the internal structures of the body. Unlike X-rays or CT scans, MRI does not use ionising radiation, making it a safer option for many patients. MRI scans also provide more detailed images than X-rays and CT scans.

How Does An Mri Work?

Each type of body tissue (soft tissue, bones, blood vessels, and organs) contains different water and fat content. This affects how the atoms respond to the magnet in the MRI scanner. Some areas appear light, and others appear dark, creating a black-and-white image inside the body. A computer processes the images to create cross-sectional pictures of the area of interest. Sometimes, an injection of a dye called a contrast agent is used to help increase the contrast between similar tissues, making them easier to see.

What Can An Mri Look For?

MRI scans are a vital tool for diagnosing and monitoring a wide range of urological conditions. They provide high-resolution images of the prostate, kidneys, bladder, and surrounding tissues, offering detailed insights into your health.

Multi-Parametric Mri (Mpmri)

For prostate conditions, our consultants use multi-parametric MRI (mpMRI), which helps differentiate between an enlarged prostate and prostate cancer. An mpMRI combines several different images to create more detailed images than a regular MRI.

- **Enlarged prostate**: An MRI can help diagnose and measure an enlarged prostate to help plan the best treatment options for you. Enlarged prostate and prostate cancer show up differently on an MRI, helping your urologist decide on the most likely diagnosis.
- **Prostate cancer:** After a PSA test and prostate examination, you may be offered an mpMRI if prostate cancer is suspected. An mpMRI can help decide if a biopsy is necessary, ensuring that you only have this procedure if there is a high suspicion of prostate cancer. The mpMRI results can guide your biopsy, making sure targeted samples are taken from the areas most likely to have cancer. An MRI can also be used to check the stage of prostate cancer and how quickly it is growing.

What To Expect During An Mri

Before your MRI scan

Please inform your urologist and/or radiographer of any implants or medical devices you may have, as these can interfere with the imaging process. If you have a medical implant, like a pacemaker, you might not be able to have an MRI. A blood test to check your kidney function may be required if a contrast injection is planned.

Preparing for your MRI scan

You will be asked to remove some of your clothes and wear a hospital gown. As the MRI uses a very strong magnet, you will need to remove any jewellery, glasses, hearing aids, and any other metal on your body. You may be advised to have an injection of dye to help your organs show up more clearly on the scan. A small cannula may be inserted into an arm vein and contrast injected into the vein. Please tell the radiographer if you have any allergies to medications or if you have a history of asthma, diabetes, heart disorder, or kidney disease, as these conditions may increase the risk of an adverse reaction to contrast material.

During the MRI scan

The MRI scanner is a large unit with a hole running directly through its centre, resembling a doughnut. You will lie on a table that can move up or down and can slide into and out of the centre of the cavity. You will be asked to remain as still as possible and may be asked to hold your breath. It’s essential to stay still to ensure clear images. The machine will not touch you, and the procedure is painless, but it can feel a little claustrophobic. If this makes you nervous, tell your radiographer, who may be able to help you feel more comfortable. The MRI scanner is very noisy. The radiographer will offer you hearing protection or headphones to listen to music and eye patches if you wish. The scan takes around 30 minutes to an hour, including preparation time. The radiographer will be in another room with the computer monitor, but you can talk back and forth through an intercom. You also have a button to hold so you can call for assistance at any time during the scan.

Benefits Of Mri Scans

- **Highly detailed images:** MRI scans can detect abnormalities that might be missed by other imaging techniques.
- **Non-invasive:** Painless, with no need for surgical procedures or exposure to radiation.
- **Comprehensive evaluation:** Ideal for evaluating complex urological conditions, including prostate cancer, kidney stones, and bladder abnormalities.

Risks Of Mri Scans

There are no known risks associated with an MRI scan. However, if you have an injection of dye, you might temporarily feel dizzy, warm, or have a headache. Allergic reactions to the contrast dye are extremely rare. Please tell the radiographer if you have any allergies to medications or if you have a history of asthma, diabetes, heart disorder, or kidney disease, as you may be at higher risk of an adverse reaction to contrast material.

When Do I Get My Mri Scan Results?

MRI scans are reported by our specialist radiologists. The results are sent to your urologist usually within 3-4 days. Your consultant will contact you to explain the results and discuss the next steps.

Why Choose Birmingham Prostate Centre For My Mri Scan?

At Birmingham Prostate Centre, we have a team of leading urologists, radiologists, and oncologists who specialise in diagnosing and treating prostate, bladder, and kidney conditions. Our consultants use MRI scans at various stages of a patient's care pathway, from initial diagnosis to ongoing treatment. Our multidisciplinary team ensures a comprehensive approach to diagnosing and treating urological conditions, offering personalised care plans for each patient.

Contact us today if you have been advised to have an MRI scan or are experiencing symptoms that may require imaging, to book your appointment. Our expert team is here to provide you with the highest quality care and ensure you receive the most accurate diagnosis and effective treatment options.