

Breast Imaging

San Radiology & Nuclear Medicine



breast MRI patient information

SO YOU NEED A BREAST MRI. YOU MAY LIKE TO KNOW...

Magnetic Resonance Imaging (MRI) uses very strong magnets and radiofrequency pulses to produce images of the breasts or various other parts of the body. Unlike mammography, there is no radiation involved in an MRI.

WHY DO I NEED AN MRI?

MRI of the breast is used in a number of circumstances. It can be used to screen women deemed at high risk for breast cancer. It is particularly useful in younger women with a strong family history or a genetic mutation such as the BRCA1 or BRCA2 gene for example. In younger women with these genetic factors, or in women who have been treated with chest irradiation for lymphoma, MRI is preferred over mammography as it avoids the use of radiation to the breast.

It can also be used to evaluate the extent of disease in women who are diagnosed with a cancer or a precancerous condition. It can also be helpful in evaluating a woman who has an abnormal lymph node in the armpit when a breast cancer is suspected and when seeking to explain clinical or imaging questions that have been raised.

MRI is highly valuable for looking at breast implants to check whether they have ruptured and to look at areas of the breast which may be hidden by breast implants on other imaging tests such as ultrasound and mammography.

HOW IS AN MRI PERFORMED?

Specially trained medical technicians known as radiographers will perform your MRI. A nurse may also be involved depending on your needs and the type of breast MRI you are having.

An MRI involves you lying on a sliding bed that passes into a magnet. For breast imaging you will be positioned lying on your tummy so that your breasts are hanging. Your head is supported. **It is important to stay still.** Both ends of the magnet tunnel are open and there is light. You may be given headphones to listen to music and you will have a buzzer in your hand to press at any time if you require help. The radiographer will be talking to you at times during the examination and they can see and hear you the entire time.

What preparation is required for an MRI?

If you are still having periods and the test is not urgent, it is ideal to schedule your MRI during the earlier part of your cycle from day 6 to 12. This is because the hormonal influences on the breast are less pronounced at this time, making interpretation of the images easier.

If you are on HRT (hormone replacement therapy) it is ideal to cease the medication for 4 to 6 weeks if the tests are not urgent, as HRT can also make interpretation more difficult.

Whilst an MRI will not be performed if you are pregnant, it is safe if you are breastfeeding. If you are currently breastfeeding please let our staff know when booking your appointment and we will provide you with more information.

Before your MRI you will be asked a series of detailed questions to ensure you will be safe in a room where there are very strong magnets. On occasion, a person will not be allowed to enter the room due to safety concerns including the presence of medical devices containing metal or the presence of foreign bodies in or near vital structures within their body. We are very careful to ask you all the relevant information in order to avoid adverse outcomes such as serious harm or even death, which can occur if safety issues are not appropriately managed. Please answer all our questions as accurately as possible.

You will be given a gown to wear and somewhere to place your belongings. You will need to take off your jewellery, bra and any other clothing items that contain metal, such as zippers or metal buttons. Do not take any watches or any card with a magnetic strip (such as a credit card) into the MRI machine, as they may not work once exposed to the magnetic field.

You may require an injection of contrast (gadolinium) as part of your study. A cannula (plastic tube) will be inserted into a vein in your arm before you enter the MRI room.

The radiographer will help you on to the examination couch and position you on your tummy. Once you are in position, your breasts are covered. The MRI procedure is not painful, however MRI is very sensitive to movement. **Any movement during a scan may produce blurry images,** therefore you will be asked to try and relax and keep still during the examination.

Please let us know before your MRI if you are claustrophobic, and talk to your referring doctor. Your doctor can prescribe a mild sedative to help. If this is required you may need to stay longer following your examination for observation and you will need to have someone with you to take you home.

Please bring all previous and relevant breast imaging studies with you. Please arrive half an hour before your appointment in order to complete all the necessary paperwork. Your safety is of the utmost importance to us and we need your time to ensure we are able to look after you.

What happens during the MRI?

The machine makes very loud noises including knocking and buzzing sounds intermittently during the examination. The radiographer will explain this to you throughout the test. You may feel warmth in your body during the test. This is usually normal.

The test usually lasts about 30 to 40 minutes, however your entire appointment will take longer when you include arrival, completing forms and getting changed.

After the study you will be able to leave unless you have needed sedation. In that case, we need you to stay for a short time to make sure you are okay and you will need someone to drive you home.

WHAT ARE THE RISKS WITH AN MRI?

The MRI examination poses almost no risk to the average patient when appropriate safety guidelines are followed. Complications can occur when safety guidelines are not observed. Although the strong magnetic field is not harmful in itself, medical devices containing metal may malfunction or cause problems during an MRI examination, which is why we ask you questions as part of the safety questionnaire before your test. Walking in to the room with metal that is attracted to the magnet can result in that object becoming a projectile, flying into the magnet. This is extremely dangerous for all involved.

Some metals can heat up to the point where they can burn you. Please remove all jewellery. If this is not possible be sure to tell the radiographer about it for your own safety.

If you require an injection of the contrast MRI dye you will be given gadolinium. The injection is administered via a pump. It may feel cold up your arm as it is injected. Whilst extremely uncommon, a patient may experience an allergic reaction to the drug. Minor reactions occur in about 1 in 1,000 people, and may present as hives or itchy eyes requiring treatment with antihistamines.

More severe reactions such as severe breathlessness or collapse occur in approximately 1 in 10,000 people. Like any serious allergic reaction, this can require treatment with fluids and intravenous drugs, with admission for observation for some hours.

If you have kidney disease you will need to have a blood test as there is a rare but real risk of a serious complication called nephrogenic systemic fibrosis. This is a process associated with poor kidney function which results in thickening of the skin and soft tissues with associated damage to the heart and kidneys.

WHAT HAPPENS AFTER MY MRI?

One of our radiologists with specialist breast interest will provide a report on your examination at their earliest convenience. Please inform the radiographer as to when you are going back to see your doctor to ensure timely reporting.

Sometimes patients may be asked to return for further imaging such as an ultrasound or mammogram to clarify the MRI findings. Please do not be alarmed if this occurs. MRI is very good at picking up processes in the breast, however some require a little time to sort out and not all are malignant. Our staff will keep you informed if additional imaging is considered necessary.

Occasionally we will need to perform a biopsy after an MRI to clarify our findings. We may be able to do this with ultrasound or mammography, but on occasion, we need to do this with MRI guidance. The biopsy process is fairly similar regardless of the imaging technique used and if this is needed, it will be discussed with you in detail.

Also, on occasion, we may recommend a follow-up MRI in 6 months. This is recommended if there is an area that is standing out but thought most likely to be due to normal (physiological) changes in the breast or other benign processes. We can confirm this with a follow-up MRI when we feel a biopsy is not indicated. Again, this will be discussed with you if appropriate.

FURTHER INFORMATION

Please contact San Radiology on **(02) 9480 9850** if you have any questions or to make an appointment.

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