

Diagnostic Mammography

Consumer Information

Contributors:

Dr Helen Frazer

MBBS, FRANZCR

A/Prof Liz Wylie, Ms Ann Revell, Dr Christine Walker,
A/Prof Stacy Goergen

What is Diagnostic Mammography?

A diagnostic mammogram is an X-ray examination of the breasts. This is performed when a person, their doctor or another health professional discovers unusual signs or symptoms in one or both breasts, i.e. a lump, tenderness, nipple discharge or skin changes. The mammogram confirms whether the changes are benign (non cancerous) and no treatment is needed, or whether the changes indicate breast cancer and further tests and treatment will be required.

How do I prepare for Diagnostic Mammography?

If you have menstrual or monthly periods it is best to have your diagnostic mammogram appointment one week after the start of your period. The breasts will not be as tender at this time and you will not feel as much discomfort or pain for the few seconds when the breasts are pressed between 2 plates to take the X-ray images.

If you have breast implants, please let the hospital, clinic or radiology practice know so they can schedule a longer appointment. This is because with the presence of implants, it takes more time to make sure clear images are taken.

Don't wear any deodorant, perfume, lotion or talcum powder on the day of your appointment because these substances may show up as shadows on your mammogram. Wear a two piece outfit so you only need to undress from the waist up. Bring any previous mammograms with you to your appointment so they can be compared with the diagnostic mammogram.

What happens during Diagnostic Mammography?

When you have undressed, a radiographer will explain the mammography procedure to you and ask a few questions e.g. "have you had a prior mammogram?", "do you have a family history of breast disease?". Your breasts will then be put, one at a time, between two special plates and compressed (pressed down) between the plates by the X-ray machine for a few seconds while X-rays are taken. Two views of each breast are performed as a minimum.

The mammography and the compression are performed by a specially trained **radiographer** or medical imaging technologist. While the compression may be uncomfortable and perhaps painful it lasts only seconds. Without compression, the X-rays would be blurry which makes it hard to see any abnormality. Compression also reduces the amount of radiation required for the mammogram.

Are there any after effects of Diagnostic Mammography?

After effects are rare. However, you may experience breast tenderness, bruising or splitting of the skin if your skin is fragile.

How long does Diagnostic Mammography take?

Standard Diagnostic Mammography takes between 10-15 minutes. Sometimes extra views are performed which take longer. If you have breast implants, the mammography will take longer (approximately 30 minutes) because it takes more time to make sure clear images are taken.

What are the risks of Diagnostic Mammography?

Like all X-rays, having a mammogram exposes you to some radiation, but only a small amount. Scientists estimate that there is less than a 1 in 25,000 risk of a mammogram causing breast cancer (see *Radiation Risk in Medical Imaging for Adults and Children*).

Such risk is far outweighed by the benefit of early detection of breast cancer, significantly reducing the death rate from the disease. The Health Protection Agency of the United Kingdom estimates the risk of an additional cancer in a life time from a single mammographic examination to be in the low risk range: 1 in 100,000 to 1 in 10,000 (http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947388410). The risk of developing cancer from a mammogram is no greater than developing cancer from exposure to the natural background radiation accumulated from the normal environment in 1 year.

If you have breast implants there is an extremely small risk of damage to the implant.

For women with a lump that can be felt, **it is important to note that mammography does not detect all breast cancers, even when the cancer has caused a lump that can be felt.** In such a circumstance, a normal mammogram does not mean that the lump can be ignored. In this situation, other diagnostic tests such as breast ultrasound and needle biopsy may be necessary to find out the cause of the lump

What are the benefits of Diagnostic Mammography?

The benefits of mammography far outweigh the risk. Multiple scientific studies have provided plenty of evidence that early diagnosis and treatment of breast cancer can save lives.

Early detection increases the likelihood of a cancer being successfully treated and often allows for greater treatment options.

Who does the Diagnostic Mammography?

The X-rays are taken by a [radiographer](#) or medical imaging technologist who has received specialist training in the field of mammography. The mammograms are then read and interpreted by a [radiologist](#) (a specialist doctor with training in breast imaging) who will provide your referring doctor with a report of the examination.

Where is Diagnostic Mammography done?

Diagnostic Mammography is performed in hospital radiology departments or private radiology practices.

When can I expect the results of my Diagnostic Mammography?

The time that it takes your doctor to receive a written report on the test or procedure you have had will vary, depending on:

- the urgency with which the result is needed
- the complexity of the examination
- whether more information is needed from your doctor before the examination can be interpreted by the radiologist
- whether you have had previous x-rays or other medical imaging that needs to be compared with this new test or procedure (this is commonly the case if you have a disease or condition that is being followed to assess your progress)
- how the report is conveyed from the practice or hospital to your doctor (in other words, email, fax or mail)

Please feel free to ask the private practice, clinic, or hospital where you are having your test or procedure when your doctor is likely to have the written report.

It is important that you discuss the results with the doctor who referred you, either in person or on the telephone, so that they can explain what the results mean for you.

Please note:

This information is of a general nature only and is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. It is recommended that any specific questions regarding your procedure be discussed with your family doctor or medical specialist

The QUDI Program is managed by the Royal Australian and New Zealand College of Radiologists and funded by the Australian Commonwealth Department of Health and Ageing.

Publication Date: May 1st 2009

The RANZCR is not aware that any person intends to act or rely upon the opinions, advices or information contained in this publication or of the manner in which it might be possible to do so. It issues no invitation to any person to act or rely upon such opinions, advices or information or any of them and it accepts no responsibility for any of them.

The RANZCR intends by this statement to exclude liability for any such opinions, advices or information. The content of this publication is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. Some of the tests and procedures included in this publication may not be available at all radiology providers.

The RANZCR recommends that any specific questions regarding any procedure be discussed with a person's family doctor or medical specialist. Whilst every effort is made to ensure the accuracy of the information contained in this publication, The RANZCR, its officers, councillors and employees assume no responsibility for its content, use, or interpretation. Each person should rely on their own inquiries before making decisions that touch their own interests.