



## What is Digital Mammography?

**Mammography is the Gold Standard in breast imaging** for diagnostic and screening breast studies in addition to the assessment of breast implants. A mammogram is used in the detection of cancer or other breast problems before a lump becomes large enough to be felt, as well as assist in the diagnosis of other breast conditions. However, a biopsy is required to confirm the presence of any malignancy.



**Digital Mammography** is similar to conventional mammography in that x-rays are used to produce in depth images of the breast. The difference is that digital mammography is equipped with a digital receptor and generates computerised images immediately instead of a film cassette that needs to be developed into a film. Digitally enhanced breast images have outstanding clarity and contrast, leading to a quick diagnosis and quality patient care.

**Computer Aided Detection (CAD)** is a sophisticated computer program that is linked to the digital mammography system and that has been shown in studies to increase the accuracy of mammography by up to 20%.

After the Radiologist has processed the digital breast images on the monitor and done the interpretation, CAD is activated. The system scans the images and alerts the Radiologist to take a second look by flagging any potentially suspicious areas. The Radiologist then reviews these areas again to determine if they need further study. CAD is like having a second set of trained eyes reviewing every mammogram. By detecting early or subtle changes, CAD can allow for earlier intervention and greater chances for cure.

When it is time for your annual mammogram, make it digital. Digital mammography with Computer Aided Detection (CAD) is your strongest new ally in the fight against breast cancer.

Allied Medical Center is equipped with the latest **Digital Mammography**, featuring the most up to date **Computed Aided Detection (CAD)** technology for superior digital imaging; providing exceptional diagnostic detail at a significant low radiation dose and heightened image visualisation.

## What is screening mammography?

Screening mammography is used as a tool to detect early breast cancer in women experiencing no symptoms.

It plays a central part in early detection of breast cancers because it can show changes in the breast up to two years before a patient or Clinician can feel them. It is recommended to combine breast ultrasound with mammography for the 1st base line screening.

Screening mammography is recommended at least every 2 years for women, beginning at age 40. Research has shown that annual mammograms lead to early detection of breast cancers, when they are most curable and breast-conservation therapies are available.

Screening mammography is recommended prior to cosmetic breast enhancement to determine breast health.

## What is diagnostic mammography?

Diagnostic mammography is used to evaluate a patient with abnormal clinical findings—such as a breast lump or lumps—that have been found by the woman or her Clinician.

A diagnostic mammogram may also be required when a questionable area is found during a screening mammogram in order to evaluate the area of concern on the screening exam.

## How are screening and diagnostic mammograms different?

Diagnostic mammography takes longer than screening mammography because more x-rays are needed to obtain views of the breast from several angles. The Technologist may magnify a suspicious area to produce a detailed picture that can help the doctor make an accurate diagnosis.

## Am I a Candidate for a Mammogram?

Anyone (yes, men too) can have a mammogram.



## Patient Guide: Digital Mammography

For most women 40 years of age and older, a mammogram will be used together with ultrasound. For women 35-40 years of age, it is advisable to speak to your Clinician; imaging will be recommended based on your risk factors. For women over the age of 40, screening mammograms are recommended at least every 2 years.

Men may be required to have a mammogram to diagnose lumps or gynaecomastia.

### Can I have a screening mammogram without a referral?

It is always recommended to see your Clinician prior to any breast imaging.

Your Clinician will refer you for the best screening or diagnostic investigations based on your medical and family history, any findings or concerns discussed in your initial consultation and your breast anatomy.

After your breast imaging was performed, you should have a follow up consultation with your Clinician to discuss your results and if any treatment or follow up imaging is required.

If your Clinician is not located within the UAE, please make an appointment to consult with one of our Clinicians at Allied Medical Center prior to booking your mammogram.

### What does a Digital Mammography scanner look like?

A mammography unit is a rectangular box that houses the tube in which x-rays are produced. The unit is used exclusively for x-

ray exams of the breast, with special accessories that allow only the breast to be exposed to the x-rays. Attached to the unit is a device that holds and compresses the breast and positions it so images can be obtained at different angles.



### How do I prepare for my scan?

Your mammogram should be scheduled between day 1 and day 10 of your menstrual cycle. Day 1 being the first day you menstruate. If you are post-menopausal appointments can be made at your convenience.

It is very important to bring the request form from your Clinician as well as all previous breast imaging (previous MRI, mammogram and ultrasound) reports and CD images/films on the day of the exam for the Radiologist to review and compare.

**Do not wear deodorant, talcum powder or lotion under your arms or on your breasts on the day of**

**the exam.** These can appear on the mammogram as calcium spots which show up as fine, white specks, similar to grains of salt. Calcium spots or breast calcifications are calcium deposits in the breast tissue that are usually noncancerous, but certain patterns can be a sign of cancer.

To make your mammogram go as smoothly as possible, wear a 2-piece outfit so that you only have to remove your top when changing into the examination gown.

Please inform your Clinician and our Technologist if there is a possibility that you may be pregnant or if you are breast feeding as radiation is involved.

### How long will the scan take?

A mammogram should take about 30 minutes to complete.

### What can I expect during my scan?

You will be collected by one of our specially qualified female Technologists and will be asked to change into a comfortable gown. Trousers will be provided if required.

Prior to the exam you will be asked general and breast health questions by the attending Technologist which will be documented on a mammography screening form. This will be archived as part of your breast health records. Please describe any breast symptoms or problems to the attending Technologist.

The attending Technologist will position your breast in the mammography unit. Your breast will be placed on a special platform



and compressed with a paddle (often made of clear Plexiglas or other plastic). The Technologist will gradually compress your breast. You will feel pressure on your breast as it is squeezed by the compression paddle.

Over its history, mammography has developed a false reputation for being painful. There is no argument that the procedure can sometimes be uncomfortable, especially for women with sensitive breasts, but it should never be painful. One way to avoid discomfort during mammography is to schedule your appointment after your period when your breasts are less tender. Be sure to inform the Technologist if pain occurs as compression is increased. If discomfort is significant, less compression will be used.

The Technologist will stand behind a glass shield during the mammography exposure. You will be asked to change positions between images. The routine views are a top-to-bottom (Cranio-caudal or CC) view and an oblique side (Medio-lateral or MLO) view. The process will be repeated for the other breast.

You must keep very still and may be asked to hold your breath for no more than 5 seconds while the mammography picture is taken to reduce the possibility of a blurred image.

Digital mammography produces an image on a screen while you are still in position. The attending Technologist has the ability to review these images immediately to determine image quality. Although the Technologist can see the images on the computer screen, she is not at liberty to

discuss any of the results with you. However, the Technologist will answer any other questions that arise during the procedure.

Once completed, the breast images are sent to the Radiologists electronically at a reading station where they can manipulate, view and magnify areas of interest. When the examination is complete, you will be asked to wait until the Radiologist determines that all the necessary images have been obtained.

Additional images such as a spot compression or spot magnification view may be requested by the Radiologist.

Spot compression views apply the compression to a smaller area of tissue. By applying compression to only a specific area of the breast, the effective pressure is increased on that spot. This results in better tissue separation and allows better visualization of the small area in question.

Spot magnification views allow the acquisition of "zoomed in" images (2 times magnification) of the area of interest. Magnification views provide a clearer assessment of the borders and the tissue structures of a suspicious area or a mass. Magnification views are often used to evaluate micro-calcifications, tiny specks of calcium in the breast.

Please note that additional imaging to the routine views does not suggest that there is a problem, but would aid the Radiologist in finalizing any findings.

At Allied Medical Center, all Women's Breast Imaging is led by a sub-specialised Breast Radiologist and performed by an experienced female clinical team.

### Why is breast compression necessary?

**Breast compression is necessary in order to:**

- Even out the breast thickness so that all of the tissue can be visualised
- Spread out the tissue so that small abnormalities are less likely to be obscured by overlying breast tissue
- Allow the use of a lower x-ray dose since a thinner amount of breast tissue is being imaged
- Hold the breast still in order to minimise blurring of the image caused by motion
- Reduce x-ray scatter to increase sharpness of picture

### What happens after my scan?

You may eat and drink as usual and return to your normal daily routine straightaway.

### When will I get my results?

We strive to complete reports within 24-48 hours and a written report will be sent to your referring Clinician upon completion. You will be asked to wait a few minutes while we burn your images on a CD which will be given to you to take back to your Clinician at your follow-up appointment. Your Clinician will discuss the findings with you.

### Any other questions?

If you have any other questions, worries or doubts do not hesitate to ask one of our staff.

We want you to feel as comfortable as possible.