

MAMMOGRAPHY

Mammomat 1000 is one of the Department's recently acquired machine. It is a universal system for any diagnostic mammography and high volume screening.

Mammography or breast X-ray, is a safe, effective, and non-invasive examination of the breast. It is a radiological procedure available to detect breast cancer early enough so that it can still be cured. There are two(2) types of mammography; screening and diagnostic.

Screening mammography is a routine procedure that is used to examine women who have no evidence of breast cancer. It consists of two views of each breast taken at an angle to each other.

Diagnostic mammography is used to examine a specific area of the breast when an abnormality, such as a lump, has been found. Diagnostic mammography includes special views and additional angles. Other diagnostic procedures done under mammography includes

ductography, pre-operative needle wire localization of a lesion and post-operative specimen mammography, and lesion-directed biopsy.

MAGNETIC RESONANCE IMAGING (MRI)

Magnetom Concerto is the most recent machine of the Department. It is an open MR scanner that ensures maximum patient acceptance and delivers exceptional image quality.



MAXIMUM PATIENT ACCEPTANCE

Patient comfort at its best!

Magnetom Concerto provides maximum comfort for all patients with its:

- Open and pleasant magnet design (C-shaped magnet)- no more worries for claustrophobic patients
- Small, inviting appearance
- Quiet gradients (very low gradient noise) - patients will not notice the power of Magnetom Concerto's gradients.
- Reasonable examination times

EXCEPTIONAL IMAGE QUALITY

Magnetom Concerto is equipped with the high-field components necessary to achieve excellent image quality in very reasonable acquisition times through its:

- Very strong gradient performance
- Broad sequence selection with high-field applications
- High-field computer components
- Isocenter positioning for highest signal-to-noise ratio

Magnetom Concerto also provides 3D imaging as well as real-time 3D post-processing with high-field functionality:

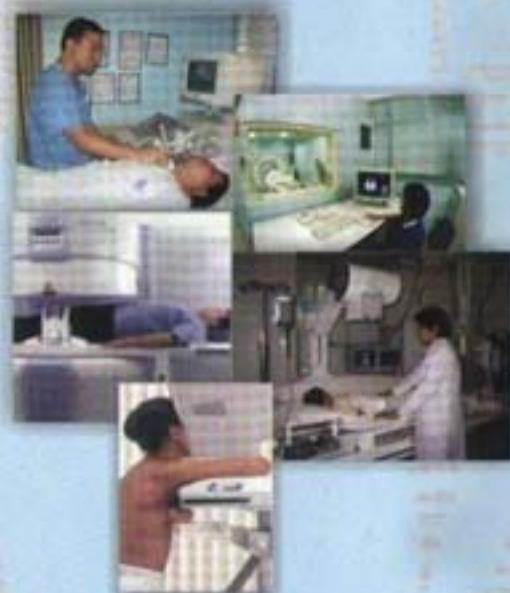
- MPR (Multi Planar Reconstruction) all orthogonal planes- oblique/double oblique, curve cuts and over contiguous reconstructions.
- MIP (Maximum Intensity Projection) for MR Angiography
- SSD (Shaded Surface Display) and volume rendering for 3D display of surfaces.

FOR MORE INFORMATION, PLEASE CALL THE RADIOLOGY DEPARTMENT at 9243601 local 1115 • Fax No: 9268934



**NATIONAL
KIDNEY AND
TRANSPLANT
INSTITUTE**

DEPARTMENT OF RADIOLOGY



X-RAY

The Department is duly licensed by DOH Office for Standards and Regulation. The service category is Level Three x-ray facility which is capable of performing examinations done in the primary and secondary categories and the following invasive procedures: sinography, fistulography, sialography, bronchography, lymphography/lymphangiography, tomography, pacemaker implants, retrograde cystography, cerebral angiography, and retrograde urography.



The other examinations in primary and secondary categories are also done such as intravenous pyelography,

GI series, small intestinal series follow-through, esophagogram, donor angiography, thoraco-abdominal angiography, angiography of the extremities, and fluoroscopic studies.



Conventional radiology still remains to be the initial modality as an approach to diagnosis of disease entities.

ULTRASOUND

Ultrasound is a safe and non-invasive imaging modality. The Department has six high-resolution ultrasound machines, two of which has Color Doppler capability.

Ultrasound is the preferred imaging modality for diagnosing and monitoring the course of pregnancy. Biophysical profile, fetal aging, fetal sex determination and screening for fetal anomalies are the usual requested procedures.



Aside from the routine diagnostic ultrasound of the abdominal structures (such as the liver, hepatobiliary tree, gallbladder, pancreas, aorta, inferior vena cava, kidneys, urinary bladder and adrenals), the machines are equipped with high frequency probes for imaging of small parts like the thyroid glands, testicles, breasts, etc.

Transrectal probes are available for ultrasound of the prostate gland with or without biopsy.

Color Doppler ultrasound is used for vascular imaging. It is also for non-invasive post-operative follow-up imaging of renal and hepatic grafts.

The radiologists are skilled in ultrasound-guided biopsies and interventional procedures like nephrostomy, percutaneous biliary drainage, thoracentesis, paracentesis and pericardiocentesis.



CT SCAN

The Siemens Somatom Emotion is a state-of-the-art computed tomographic scanner. It is a spiral, high resolution, fast imaging system with sub-second scanning and reconstruction time of two seconds. It can finish a whole abdominal study within a single breath hold.

Also, the CARE (Combined Application to Reduce Exposure) Bolus is a software program, which automatically triggers the spiral scan following contrast injection. The optimal contrast enhancement is achieved without additional administration of contrast medium.

There is a separate workstation with 3-D Virtuoso where all post-processing of the acquired images is done. It is capable of two-and three-dimensional reconstruction including CT Angiography, Flythrough (Virtual Endoscopy) of hollow organs and blood vessels.

With high-resolution features, CT-guided biopsies will have optimal yield and minimal complications.

