

## Digital imaging in mammography helping enhancing the detection & diagnosis of breast lesions

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The medical imaging field has been considerably impacted in recent years by the emergence of digital imaging modalities, including **Computed Radiography (CR)** and **Digital Radiography (DR)**.

The similarities between CR and DR technology are the resultant image is in the digital format, the image formats are compatible for storage in the digital Picture Archiving and Communication System (PACS) and the appearance of the digital images can be manipulated.

Digital imaging permits computer-aided detection which provides a supportive role to Radiologist during diagnosis. Computer aided detection also commonly known as **Computed Aided Diagnosis (CAD)**, uses a computer program to detect features likely to be of clinical significance in images and highlights it. **Digital Breast Tomosynthesis** is a newly emerged digital mammography technique that produces a 3-dimensional image of the breast.

The high spatial resolution and wide acquisition angle results in the production of mammography images with unparalleled image quality which enables better analysis of the type and size of lesions as well as microcalcifications compared to conventional methods. **Contrast Digital Mammography (CDM)** It has been shown that the growth and metastatic potential of tumors can be directly linked to the extent of surrounding angiogenesis. This motivates the use of contrast medium uptake imaging methods to aid in the detection of cancer. The important advantages of digital imaging is an overall decrease of radiation dose to the patient, tolerance to over or under exposure, possibility to utilize post-processing techniques that can make the image diagnostically better.

### Biography

Dr Bhawna completed her graduation from Guru Nanak Dev University , Amritsar and her post graduation – M.D. Radio diagnosis from Sri Ramachandra University, Chennai India in the year 2000. She is presently working as Professor of Radiology in Sri Ramchandra University Chennai, India.

She has special interest in Oncology and is expert in performing non-vascular image guided interventions like radio frequency ablation , vertebroplasty & image guided biopsies may it be vertebral, muscular ,mediastinal structures , visceral organs or breast .

She is the co- founder & resource person for Indian Academy Of CT guided interventions "IACTI". She has been conducting various CME programmes and hand on workshops for years together.

She has multiple international & national publications to her credit. She has won numerous awards and has been a constant winner for Case of The day awards in RSNA.