

Digital detectors are now available for nearly all radiographic procedures. The goal of this presentation will be to look at the types of digital detectors, how these detectors will impact the future practice of radiography and how these detectors will impact a PACS system. Detector types include phosphor/CCD, phosphor/flat panel, selenium/flat panel and others. The detector types and features will be reviewed. Digital mammography detectors with pixel sizes of 0.05 to 0.1 mm may contain up to 30 Mbytes per image. Digital chest and abdominal image detectors are larger in area but also have larger pixel sizes and may have up to 20 Mbytes per image. In cardiology, flat panel digital systems are now widely available and may soon replace image intensifier based systems. Flat panel systems for interventional and fluoroscopy are also under development. Coinciding with the shift to digital detectors is the ability to perform many new procedures. These new procedures may result in increased image production and storage requirements.

Educational Objectives:

1. Review digital image detectors available and under development
2. Discuss how these detectors will change the practice of radiology
3. Discuss the role of these detectors in a PACS system

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