Digital Tomosynthesis

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Digital tomosynthesis is an imaging method in which multiple X-ray images are taken of a stationary, compressed, breast. Each image is taken at a slightly different angle, producing a series of 'slices' that can be viewed individually or one after another as a kind of movie. This technique allows clinicians to get a more three dimensional view of the breast being examined and provides more information than a standard mammogram.[1], [2], [3]

An animation depicting digital tomosynthesis of a breast:

More information on this topic may be found in Chapter 16 of The Biology of Cancer by Robert A. Weinberg.

1 Niklasan LT, Christian BT, Niklason LE, Kopans DB, Castleberry DE, Opsahl-Ong BH, Landberg CE, Slanetz PJ, Giardino AA, Moore R, Albagli D, DeJule MC, Fitzgerald PF, Fobare DF, Giambattista BW, Kwasnick RF, Liu J, Lubowski SJ, Possin GE, Richotte JF, Wei C-Y, Wirth RF. 1997. Radiology 205(2);399-406 [PUBMED]
2 Smith AP, Hall PA, Marcello DM. Emerging technologies in breast cancer detection. 2004. Radiologic Management 26(4):16-24 [PUBMED]
3 Lewin JM, D'Orsi CJ, Hendrick PE. 2004. Radiologic clinics of North America 42(5) 871-874 [PUBMED]