

# BREAST ULTRASOUND PROTOCOL



Updated: 4-22-24 (radial/ anti-radial)

Reviewed: 1/5/2026; 1/10/2025; 01/12/23; 06/22/22; 01/29/22; 10/30/20

<b>Indication</b>	Breast pain, breast lump/mass, nipple discharge, galactorrhea (not associated with birth), nipple discharge, diffuse cystic mastopathy, abnormal mammogram, abnormal finding on another radiology exam of the breast.
<b>Prep</b>	Place patient supine, with shoulder and upper torso mildly elevated by pillow or foam wedge. The patient’s arm should be positioned over the head, or on the hip with the elbow pointed back. (Depending on the size of the breast, multiple scanning positions may be required). Patient should point out any palpable mass or area of pain
<b>Procedure</b>	<ul style="list-style-type: none"> <li>a) Check prior breast imaging films - both mammogram and ultrasound.</li> <li>b) Perform a general scan of breast tissue to relate normal tissue with any area that may be different sonographically.</li> <li>c) Place transducer at the area of question.</li> <li>d) Each image must be labeled according to the mammographic “clock”, along with which breast is being imaged, and distance from the areola margin.</li> <li>e) If a focal lesion is seen, document the images for the permanent record. The mass should be scanned with Ultrasound ‘sweeps’ through the entire lesion in multiple planes.</li> <li>f) Images of the lesion in radial and anti-radial views should be captured and annotated with ‘right’ or ‘left’ clock face position, and centimeters from the nipple.</li> <li>g) Radial and anti-radial scanning planes are preferred over standard transverse and sagittal scanning planes because scanning the breast along the normal axis of the mammary ducts and lobar tissues allows improved understanding of the site of lesion origin and better visualization of ductal extensions and helps to narrow the differential diagnosis.</li> <li>h) Images should be captured with and without calipers to allow margin assessment on static images.</li> <li>i) Lesion size should be measured in three dimensions, reporting the longest horizontal diameter first, followed by the anteroposterior diameter, then the orthogonal horizontal.</li> <li>j) If focal lesion is noted, a scan of patient's <b>axillary</b> region <b>MUST</b> be completed.</li> <li>k) Apply Doppler to any measured lesion             <ul style="list-style-type: none"> <li>a. Doppler signals obtained in a questionable area should be compared to those obtained in the contralateral area.</li> </ul> </li> <li>l) If no focal lesion is seen, document images of the area in radial and anti-radial.</li> </ul>
<b>NOTE:</b>	- <b>For male sonographers</b> : Do <b>NOT</b> preform the breast ultrasound without a facility employed female chaperone in the room.