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## Axillary Ultrasound

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Updated: 7/24/2020

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### **Indications:**

May include but not limited to investigating a palpable mass or axillary abnormality, call back or follow up to mass, follow up to prior ultrasound or call back from screening ultrasound, evaluation of axilla with suspicious breast mass.

### **Patient Preparation:**

There is no preparation for this exam.

### **Equipment Selection and Settings:**

The breast preset and a high frequency linear transducer of 10MHz or above should be used. A single focal zone at the area of interest must be used. Axillary subpreset should be utilized as needed.

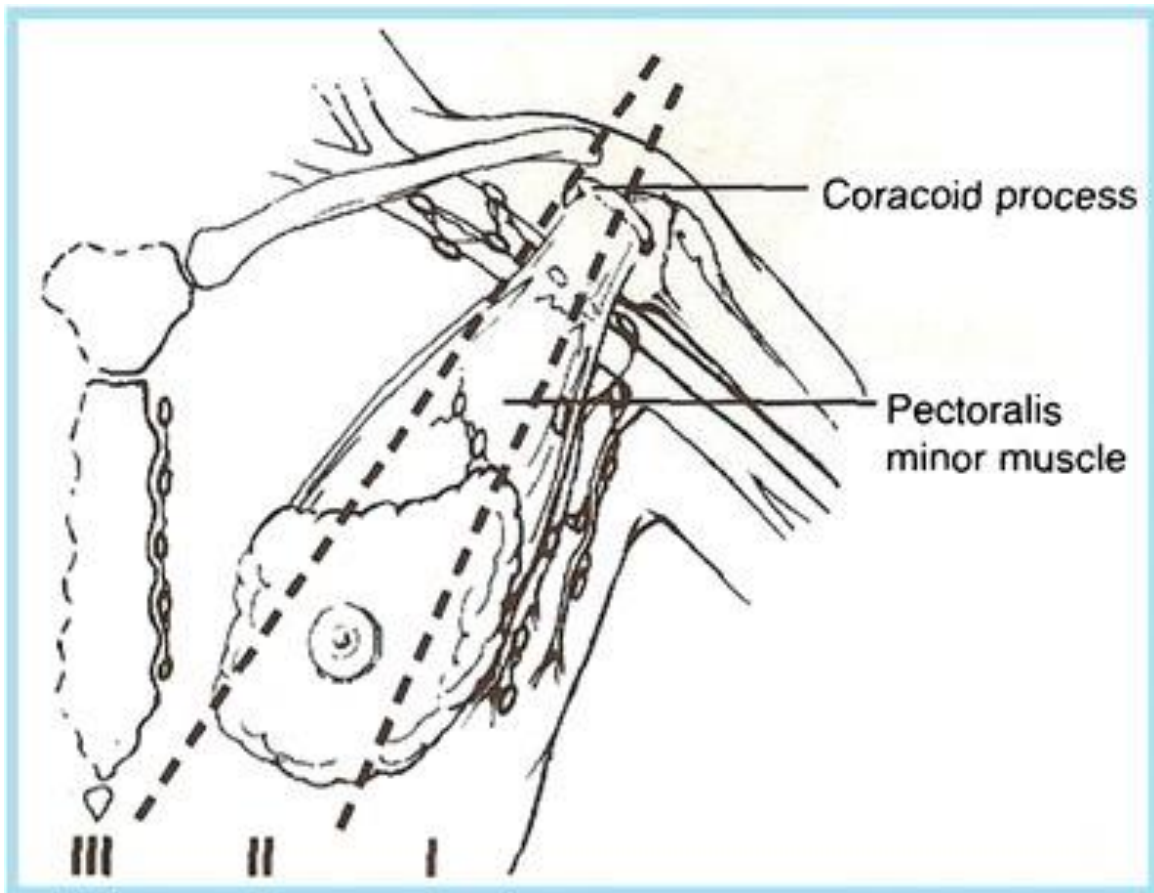
### **Patient Position:**

The patient should be propped up on an angle using a wedge with the ipsilateral arm raised above the patient's head.

### **Imaging:**

1. Patients with focal palpable mass
  - Targeted scan over area of concern in transverse and longitudinal
  - Measure any abnormal findings in 3 orthogonal planes, with and without calipers
  - Color Doppler (Use low wall filter and low frequency settings. Color gain should be high enough to detect subtle flow without causing noise artifact)
  - Annotate image as palp per patient/doctor
2. Patient with suspicious findings
  - Scanning must be performed broadly to include the entire extent of the axillary contents
  - Level I lymph nodes should be covered from the margin of the pectoralis muscles anteromedially to the latissimus dorsi and teres major margin posterolaterally
  - It is important to take care to include far inferiorly, down through the axillary tail, because sentinel node is usually the most inferior node we are able to see. It is best to start inferior and scan superiorly due to this reason

3. If abnormal lymph nodes are present
- Continue scanning the entire axilla in order to identify the number of abnormal lymph nodes that are present
  - Each abnormal lymph node should be measured for greatest cortical thickness. Pathologically enlarged lymph nodes (greater than 10 mm short axis dimension) should be measured in 3 orthogonal planes
  - Each lymph node should be numbered starting with the most inferior node as 1 and moving superiorly
  - Color Doppler image must be taken of each abnormal lymph node. (Use low wall filter and low frequency settings. Color gain should be high enough to detect subtle flow without causing noise artifact)
  - Abnormal lymph nodes are characterized by round shape, effaced hilum, absence of the fatty hilum, increase concentric or focal cortical thickening



The lymph node-bearing area is divided into three regions: level I: lymph nodes lateral and inferior to the pectoralis minor muscle; level II: lymph nodes under the pectoralis minor muscle; level III: lymph nodes deep and medial to the medial border of the pectoralis minor muscle