

PROBE PLACEMENT

1

Transducer: Linear/Curved

Depth: 2-4 cm

Increase gain and turn off tissue harmonics for better image.



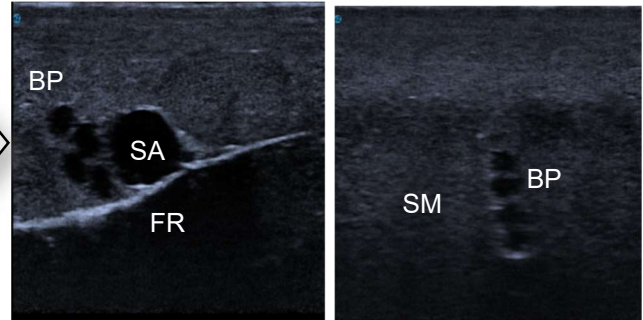
Place the transducer in the supraclavicular fossa just superior to the clavicle. Adjust the position of the probe (lateral/medial) until the first rib and subclavian artery are clearly visible. Aiming the beam slightly under the clavicle will help visualize the first rib and artery.

ANATOMY

2

- Middle/Anterior Scalene Muscles (SM)
- First Rib (FR)
- Subclavian Artery (SA)
- Brachial Plexus (BP)

Lateral



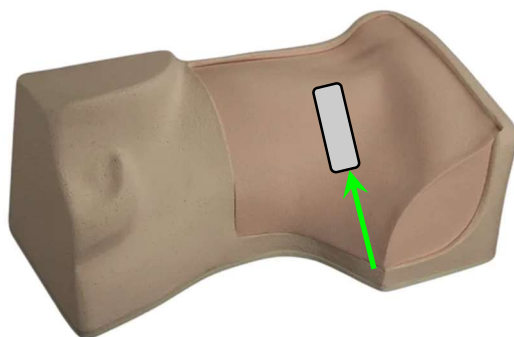
The brachial plexus is immediately adjacent and lateral to the subclavian artery. Slide the probe slowly up the neck 3-5 cm while observing the brachial plexus until it sits in a vertical pattern (traffic light) between the scalene muscles.

NEEDLE INSERTION

3

Use sharp bevel 25-22g, 5-10 cm length needle.

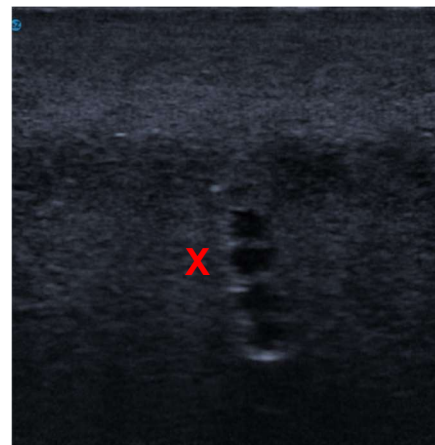
- Insert the needle in-plane from lateral to medial.



Advance the needle slowly, adjusting the probe to visualize the needle by slightly sliding the probe caudad/cephalad to keep it on top of the needle.

The needle should be positioned immediately adjacent to the fascial plane formed by the scalene muscles approximately mid-way between the visible chords of the brachial plexus.

Lateral

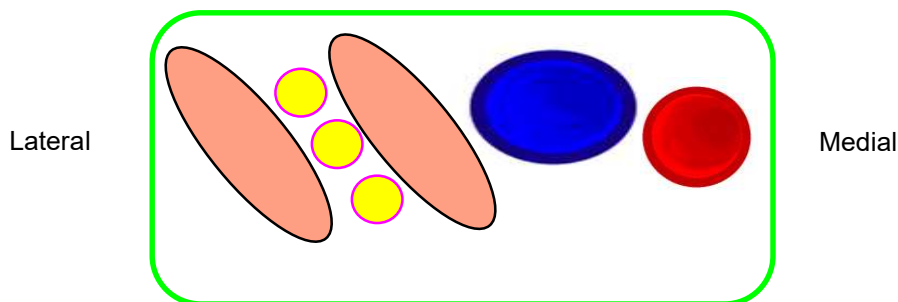
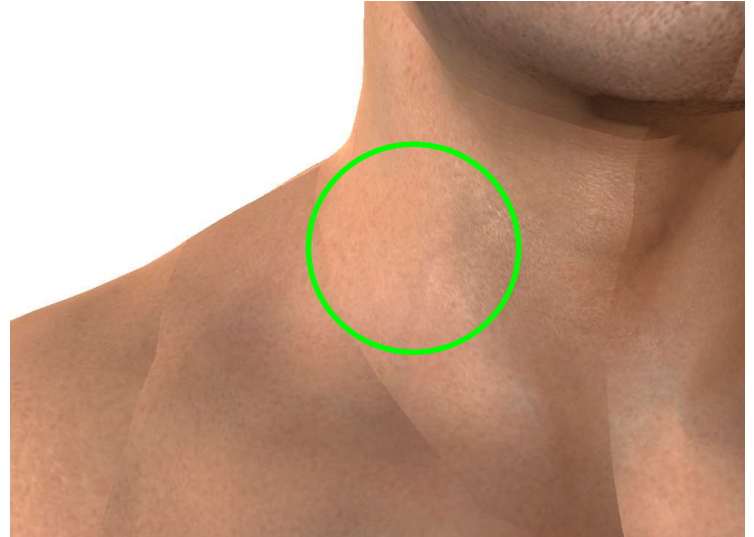
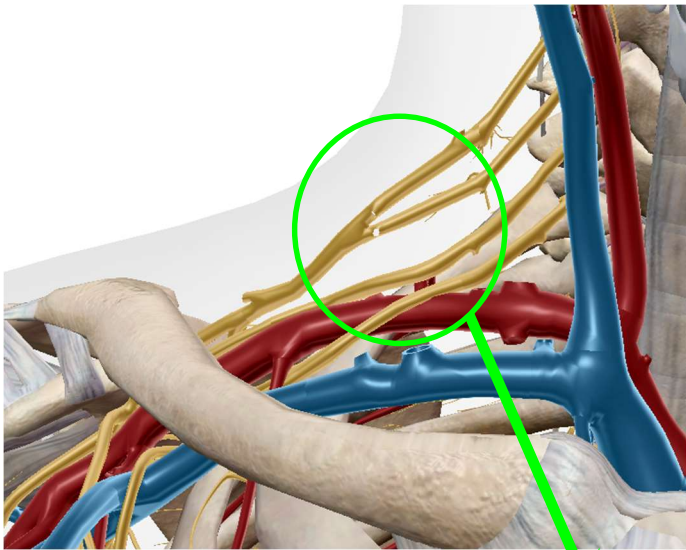


Do not use the needle to find the beam, Use the beam to find the needle.

Starting with the needle 1-2cm away from the edge of the probe will allow for a less steep approach. Care should be taken to ensure that the needle remains clear of both vessels.

ANATOMICAL DETAIL

The brachial plexus is a nerve network that supplies the upper extremity. It is formed by C5-T1. It exits the cervical spine and travels between the anterior and middle scalene muscles and then travels distally around the axillary artery. The space between the scalene muscles is called the interscalene groove.



CARE AND MAINTENANCE

Clean the simulator with an alcohol swab or wash with soap and warm water before first use and prior to storage.

Allow to dry naturally or dab dry with a lint-free cloth.

Store at room temperature.

Never place objects on top of the simulator while in storage.

Never place printed material on the simulator as permanent ink transfer may occur.

Always use the smallest gauge needle possible as this will help with simulator life and recovery.

Never use a Tuohy needle.

An increase in gain is typically required for the best image.