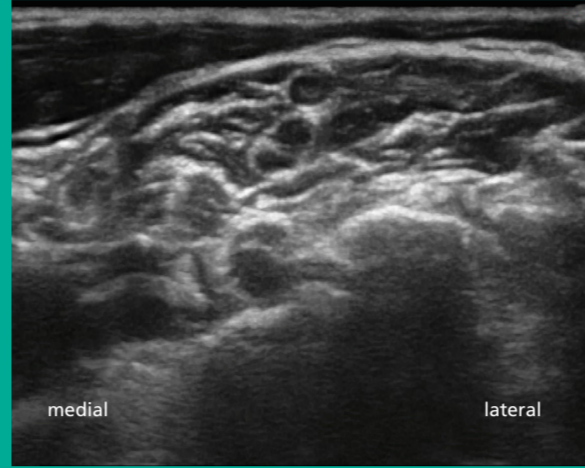


INTERSCALENE



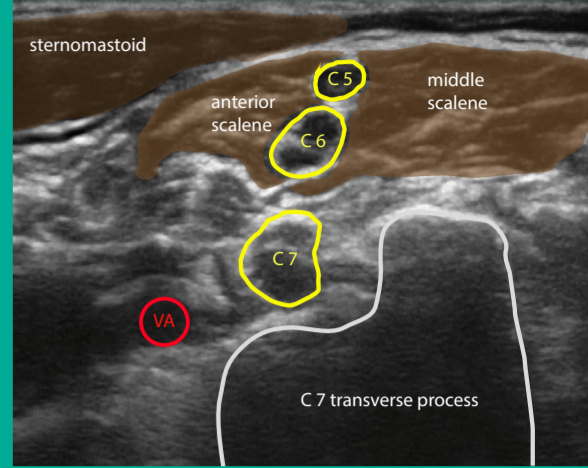
Indications: Shoulder, proximal humerus surgery

Identify: 2-3 trunks in a vertical alignment between anterior and middle scalene muscles; use doppler to check for vascular structures in the vicinity

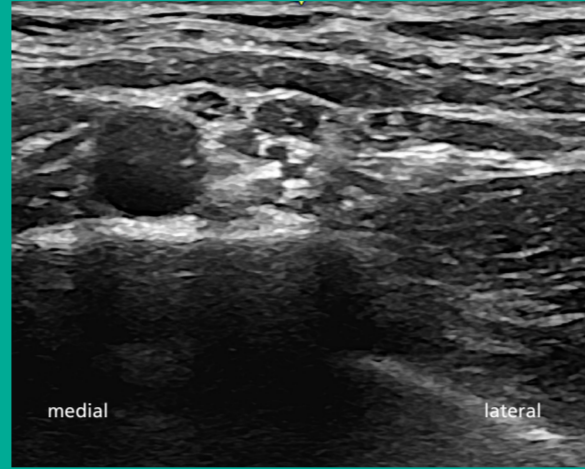
Target: The interscalene groove, deep to C5 trunk to reduce spread to phrenic n; no advantage in multiple injections if adequate spread

Tips: Scan up from supraclavicular region if necessary

Avoid: Intravascular injection or pneumothorax are major complications; beware the vertebral artery which lies deeper but within needle range; phrenic nerve or sympathetic blockade are common with large volume injection



SUPRACLAVICULAR



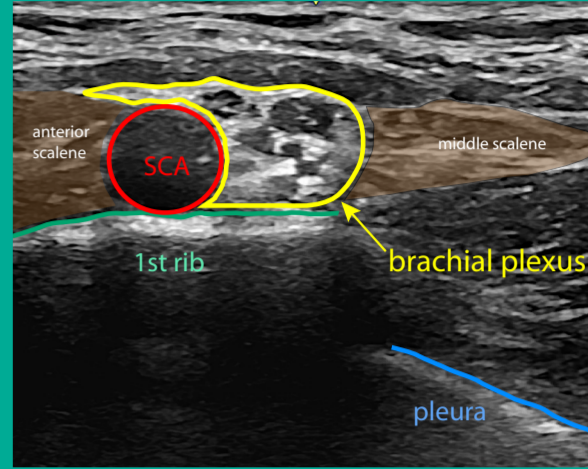
Indications: Humerus, elbow, hand surgery

Identify: Subclavian artery lying on the first rib with underlying pleura. Brachial plexus appears as a honeycombed structure lateral and superficial to the artery

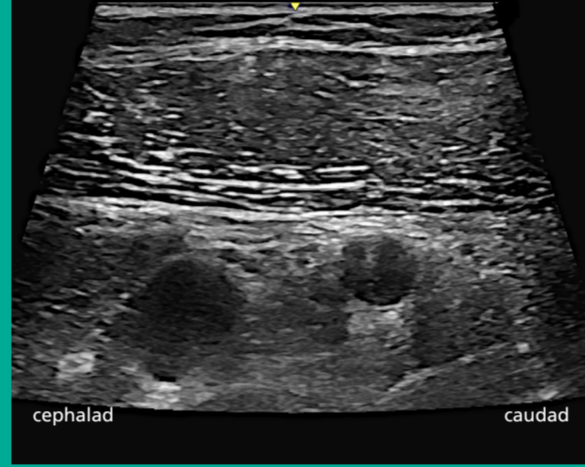
Target: 2-3 injections in the brachial plexus sheath, ensuring LA spread to the "corner pocket" between the artery and rib and any superficial components

Tips: Keep the 1st rib in view beyond the needle tip to protect against pneumothorax

Avoid: Pneumothorax; avoid needle tip beyond the 1st rib - keep tip in view throughout



INFRACLAVICULAR



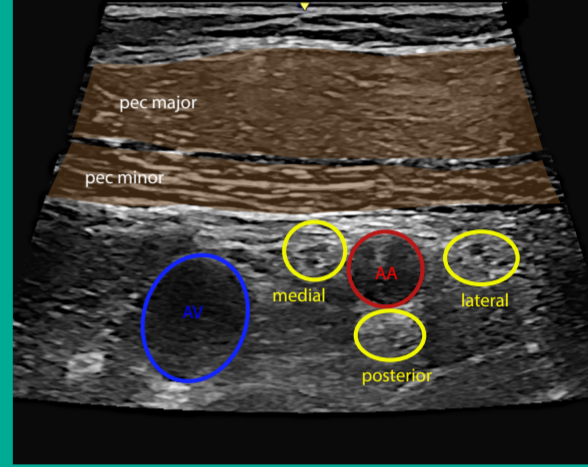
Indications: Humerus, elbow, hand surgery

Identify: Pectoralis major & minor, axillary artery and vein, 3 cords arranged around the artery

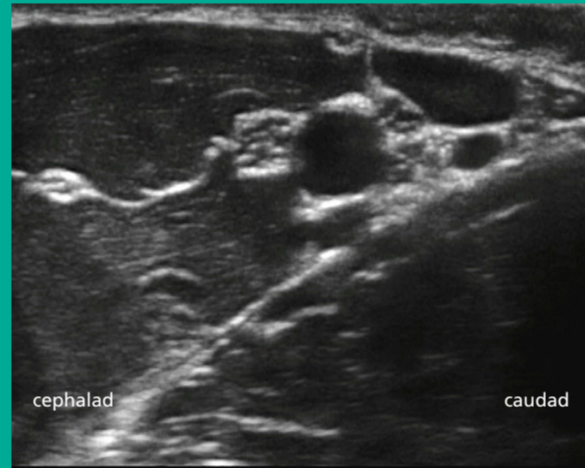
Target: Posterior to artery and check spread to other cords, add injection to other cords if necessary

Tips: Arm abduction improves view and needle access beneath the clavicle but is not essential; plexus lies deeper than other approaches; pectoral muscles help anchor catheters

Avoid: Vessels, pneumothorax (keep in plane)



AXILLARY



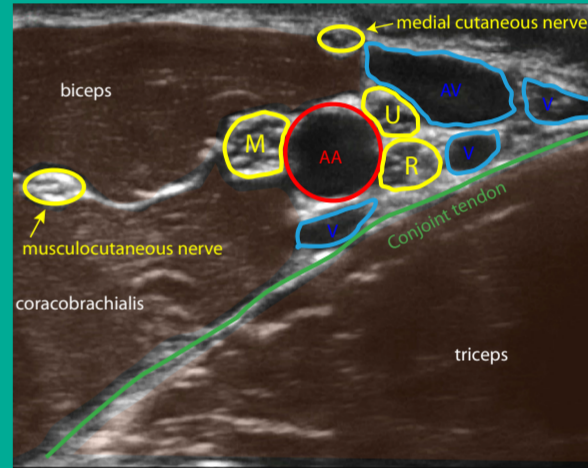
Indications: Elbow, forearm, hand surgery

Identify: Axillary artery (sometimes multiple), veins (often multiple), conjoint tendon of teres major and latissimus dorsi. 4 nerves (musculocutaneous, median, ulnar, radial) lie above that tendon

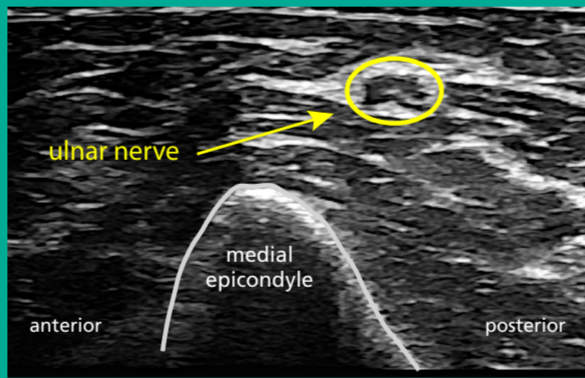
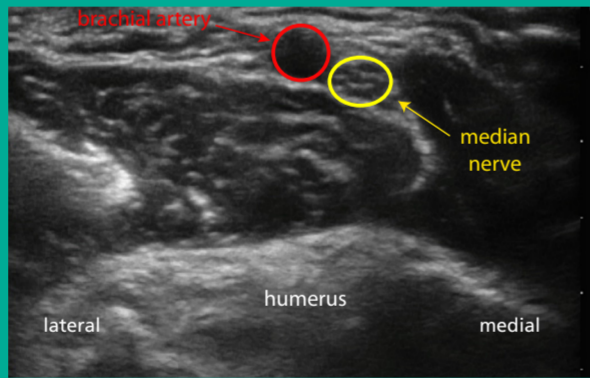
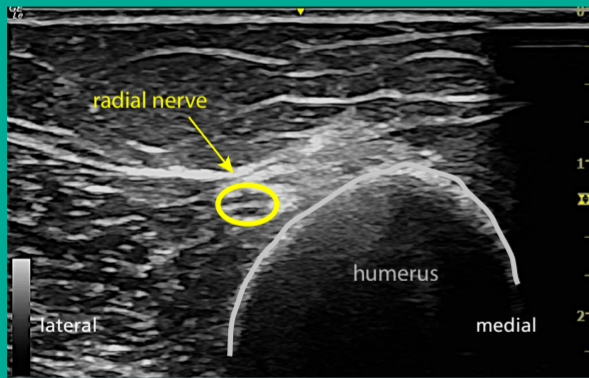
Target: Each nerve in turn, plus subcutaneous infiltration for intercostobrachial n

Tips: Scan distally to confirm nerve identity (median n stays with brachial artery, ulnar n moves medially and superficially to the cubital tunnel, radial n dives deep towards the triceps border of humerus with the profunda brachii artery); nerve stimulator can be used to confirm; considerable variation in position of nerves; block radial before more superficial nerves to preserve ultrasound image

Avoid: Intravascular injection (multiple vessels) - watch ultrasound for injectate spread on each injection, avoid intrafascicular nerve trauma



PERIPHERAL NERVES



Proximal: Flex the elbow, look for the rounded appearance of the nerve looping around the distal humerus

RADIAL

Distal: Radial nerve here has a characteristic ovoid appearance (2 components + artery), elbow joint surface is visible

Proximal: The nerve lies immediately medial to the brachial artery just above the elbow skin crease

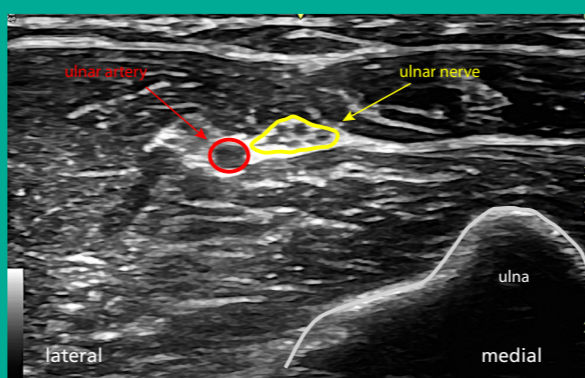
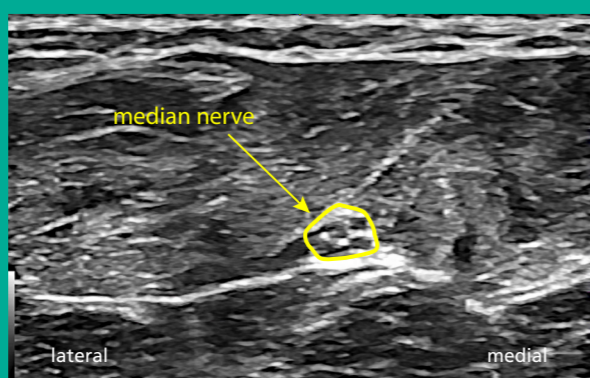
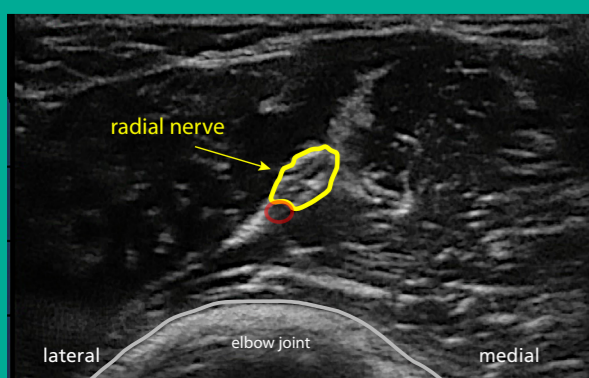
MEDIAN

Distal: Hyperechoic honeycombed structure in the centre of 3 fascial planes, scan down to the wrist to confirm

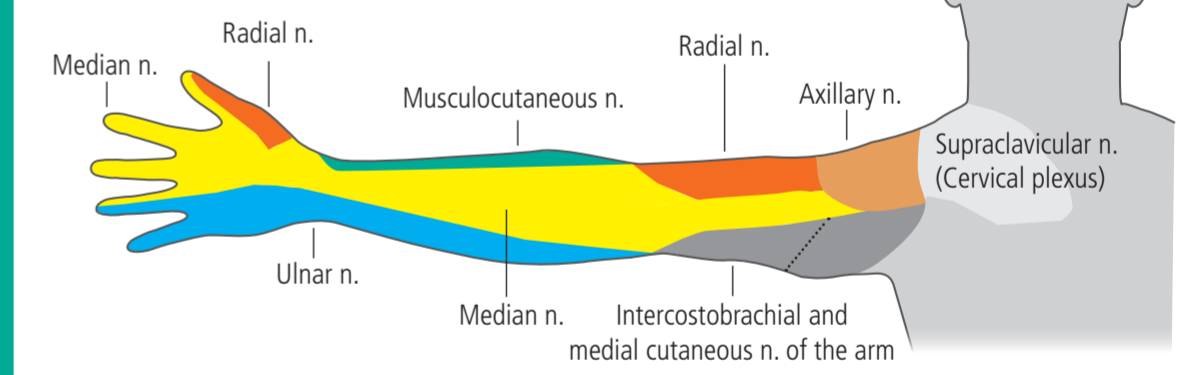
Proximal: Above the medial epicondyle before the nerve enters the cubital tunnel

ULNAR

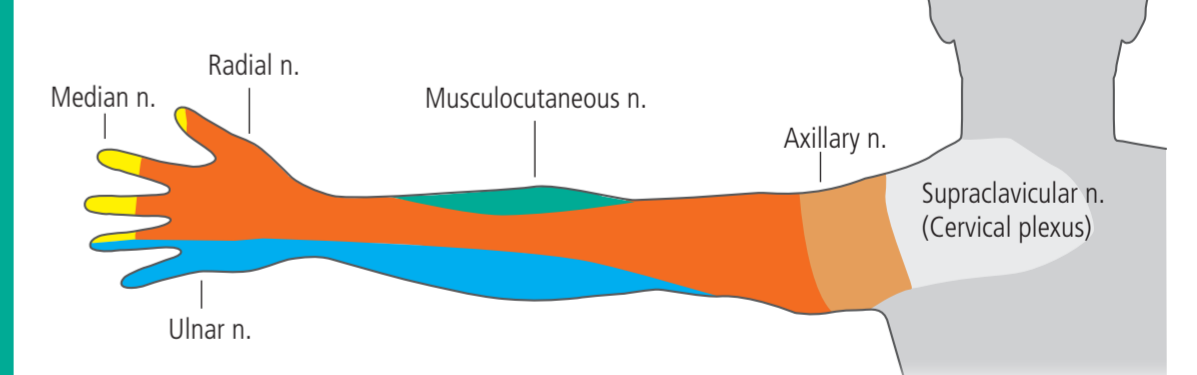
Distal: Nerve lies on the medial side of the ulnar artery, scan proximally until they separate



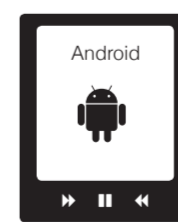
Palmar



Dorsal



Get the App



YouTube



Search 'Block GuRU' on YouTube for nerve mapping videos