

Nerve plexus blockade

1. Brachial plexus blockade
2. Cervical plexus blockade

Brachial plexus blockade. Injection of local anesthetic solution into the sheath surrounding the brachial plexus results in varying degrees of upper-extremity blockade. This technique is indicated for any procedure involving patients' shoulders, arms, or hands. The approach taken depends on the distribution of blockade desired.

1. **Axillary block.** The needle is placed into the brachial plexus sheath from the axilla. Blockade above the patient's elbow is unreliable.

2. **Supraclavicular blockade.** The needle is directed caudally from behind the posterior border of the inner one-third of the clavicle. This technique reliably blocks the entire upper extremity, sparing the patient's shoulder. The risk of pneumothorax is low.

3. **Interscalene blockade** involves the cervical as well as brachial plexus and reliably blocks the patient's shoulder. Ulnar nerve block is unreliable. The high incidence of phrenic nerve block increases the risk of pulmonary complications in patients with chronic obstructive pulmonary disease and also serves as a contraindication to bilateral blockade.

f. **Cervical plexus blockade** is indicated primarily for carotid endarterectomy and is the anesthetic method of choice for this procedure at many institutions. Inadvertent blockade of neighboring structures does occur.

1. **Phrenic nerve blockade** may result in transient diaphragmatic paralysis. Simultaneous bilateral cervical plexus blockade is therefore contraindicated.

2. **Ipsilateral cervical sympathetic plexus blockade** may result in Horner's syndrome, producing transient ptosis, miosis, and facial anhidrosis.