

Ulnar Sensory (Orthodromic)

Electromyograph Instrument Parameters:

Filter Settings/Frequency Response: 20 Hz - 2,000 Hz
Sweep Speed: 1 - 2 milliseconds/Division
Sensitivity/Gain: 5 - 10 microvolts/Division

Patient Position: (Illustration 7) The patient is positioned supine with the arm abducted to 45 degrees, the forearm is fully supinated, palm up, and the wrist is in a neutral position with the fingers slightly flexed in a relaxed, "resting" position.

Electrode Placement: (Illustration 7)

Active (Recording) Electrode: The active recording electrode will be positioned directly over the cathode (distal) stimulating site used for evoking the ulnar motor response at the wrist. (Refer to Illustration 5)

Reference Electrode: The reference electrode will be positioned 3 cm proximal to the active electrode. This electrode will be positioned directly over the anode (proximal) stimulating site used for evoking the ulnar motor response at the wrist. (Refer to Illustration 5)

Ground Electrode: The ground electrode should be positioned on the dorsum of the hand between the active and stimulating electrodes.

Electrostimulation: (Illustration 7)

Percutaneous electrostimulation is performed as follows:

Stimulation is applied over the digital nerve via electrodes attached to the little (5th) finger. The cathode is positioned at or about the midpoint of the proximal phalanx of the little finger. The anode is positioned at or about the distal interphalangeal joint line of the little finger so that a distance of not less than 10 cm, but not more than 14 cm is maintained between the stimulating cathode on the digit and the active electrode at the wrist.

TECHNICAL COMMENTS:

A low stimulation intensity is usually adequate to elicit an orthodromic sensory response.

The possibility of obtaining a spurious motor response is decreased using the orthodromic technique.

Motor response and volume conduction effects may be lessened by decreasing electrostimulation intensity and/or decreasing pulse width duration of the applied electrostimulation.

Special Concern: Care must be taken to maintain a separation between the stimulating cathode and anode on the little finger. Do not allow conducting gel to bridge this interelectrode space.

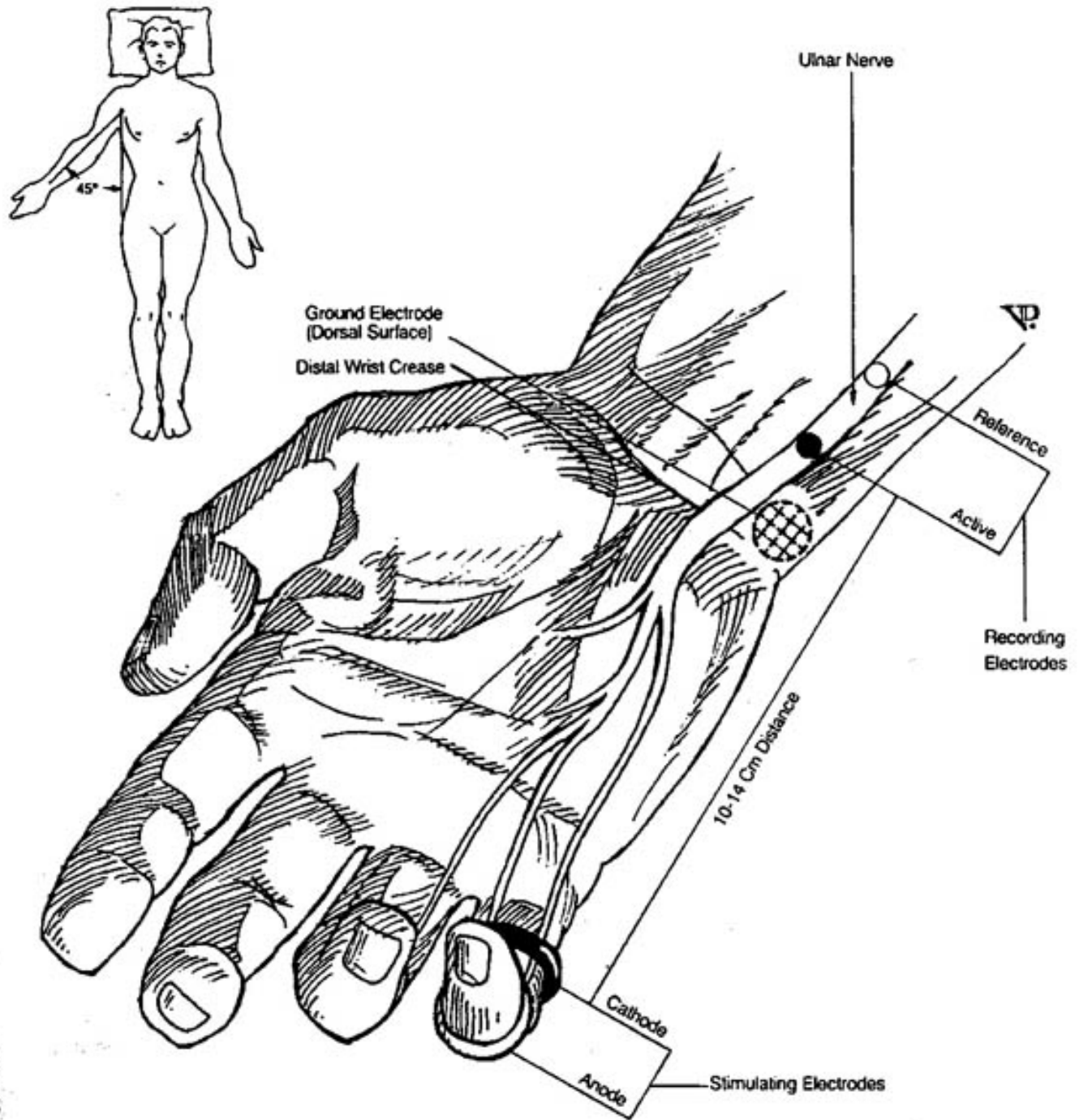


ILLUSTRATION 7