

Median Sensory (Orthodromic)**Electromyograph Instrument Parameters:**

Filter Settings/Frequency Response: 20 Hz - 2,000 Hz

Sweep Speed: 2 milliseconds/Division

Sensitivity/Gain: 5-10 microvolts/Division

Patient Position: (Illustration 3) The patient is positioned supine with arm abducted approximately 45 degrees. The forearm is fully supinated; the wrist is in a neutral position. The fingers may flex slightly when in a relaxed, "resting" position.

Electrode Placement: (Illustration 3)

Active (Recording) Electrode: The active recording electrode will be positioned directly over the cathode (distal) stimulating site used for evoking the median motor response at the wrist. (Refer to Illustration 1)

Reference Electrode: The reference electrode will be positioned 2-3 centimeters proximal to the active electrode. This electrode will be positioned so that it is directly over the anode (proximal) stimulating site used for evoking the median motor response at the wrist. (Refer to Illustration 1)

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

Electrostimulation: (Illustration 3)

Percutaneous electrostimulation is performed as follows:

Stimulation is applied over the digital nerve via electrodes attached to the index finger. The cathode is positioned at the midpoint of the proximal phalanx of the index finger and the anode is positioned at or about the distal phalangeal joint line. A distance of not less than 10 cm, but not more than 14 cm is maintained between the stimulating cathode on the index finger 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 index finger. Do not allow conducting gel to bridge this interelectrode space.

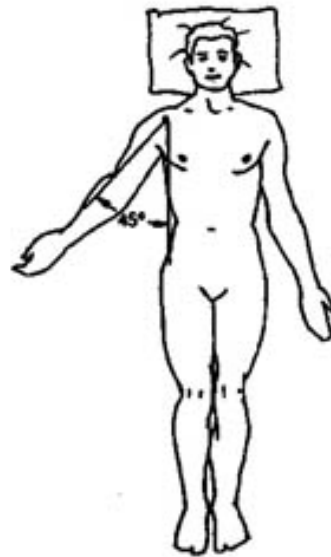
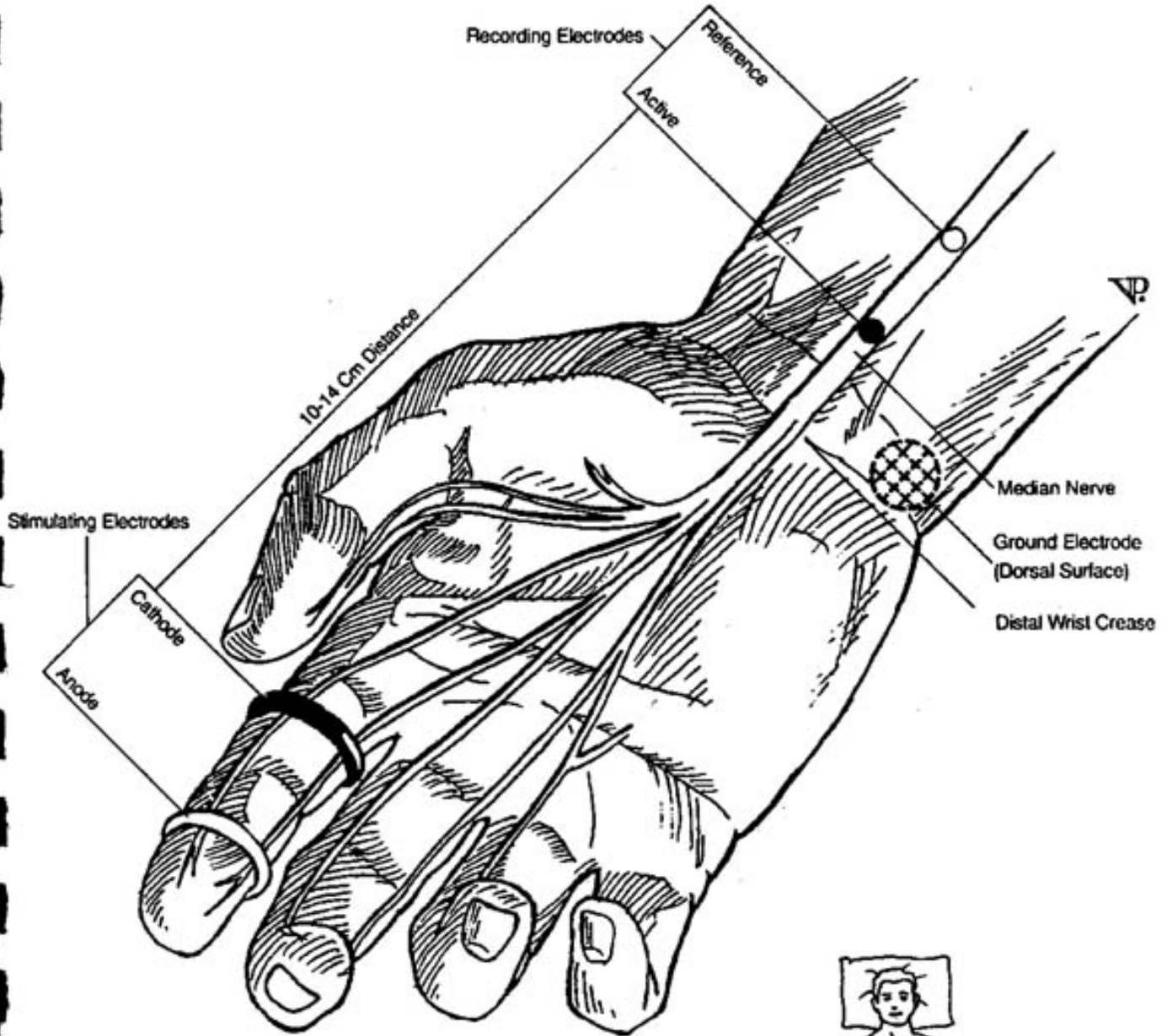


ILLUSTRATION 3