Muscles

- **Flexor digitorum superficialis muscle**: Flexes the middle phalanges of the fingers at the proximal interphalangeal joints. Also flexes the proximal phalanges at the wrist and metacarpophalangeal joints.
- **Flexor digitorum profundus muscle**: Flexes the distal phalanges at the distal interphalangeal joints of the fingers. Aids flexion of the hand.
- **Pronator quadratus muscle**: Pronates the antebrachium, binds the radius and ulna.
- **Flexor carpi ulnaris muscle**: Addsucts and flexes the hand at the wrist.

Clinical Relevance: Prolonged contraction of the forearm and hand flexors can lead to fatigue and myofascial dysfunction. Activities include motorcycle racing and other high-force, repetitive activities.1 The cross-sectional anatomy visible in Figure 5-15 illustrates the relationships of the local musculature to the entry site at HT 6, suggesting the angle and depth required for local trigger point deactivation.

Tension in the flexor carpi ulnaris muscle contributes to ulnar nerve lesions at the elbow more commonly than does tension in the flexor digitorum profundus.2 Ulnar neuropathy at the wrist is more rare and difficult to localize with routine electrophysiologic studies than ulnar neuropathy at the elbow.3 Myofascial palpation of the tissues along the course of the ulnar nerve often reveals the locus of dysfunction and prompts attention to that site through medical acupuncture and related techniques.

Nerves

- **Medial antebrachial cutaneous nerve (C8, T1)**: Supplies the skin on the anterior and medial aspects of the forearm.

  **Note:** Communicating branches pass between the median and ulnar nerves.

- **Ulnar nerve (C8-T1)**: The ulnar nerve supplies the flexor carpi ulnaris and ulnar half of the flexor digitorum profundus muscle, which sends tendons to the 4th and 5th digits. The ulnar nerve supplies most of the intrinsic hand muscles (i.e., the hypothenar, interosseous, adductor pollicis, deep head of the flexor pollicis brevis, and the median [IV] and V ulnar branches). It provides sensation to the palmar and distal dorsal aspects of the ulnar 1.5 digits (i.e., the little and the ulnar half of the ring finger) and adjacent palmar region. It gives off four branches: the palmar, cutaneous, dorsal, superficial, and deep branches. The palmar, cutaneous branch supplies the skin at overlying the carpal bones on the ulnar side of the wrist. The dorsal branch supplies the skin on the ulnar aspect of the dorsal hand and the proximal parts of the little and medial ring finger. The superficial branch supplies the palmaris brevis muscle, as well as sensation to the skin of the palmar and distal dorsal aspects of the little finger and the ulnar side of the ring finger, as well as the proximal palm. The deep branch supplies the hypothenar muscles (i.e., the abductor, flexor, and opponens digits minimi), and the IV and V ulnar branches, the adductor pollicis muscle, and the deep head of the flexor pollicis brevis muscle.

Clinical Relevance: Venipuncture can injure the ulnar nerve, along with repetitive musculoskeletal injuries related to ulnar neuropathy at the elbow.4 Venipuncture can injure the ulnar nerve, along with repetitive musculoskeletal injuries related to ulnar neuropathy at the elbow.5 Following repair of the ulnar and median nerves, sympathetic unmyelinated fibers regrow more quickly than sensory myelinated fibers. The relative amount of autonomic versus somatic nerve endings in an acupuncture point locale colors the kind of response the tissue exhibits.

Vessels

- **Ulnar artery**: Supplies the hypothenar muscles (i.e., the abductor, flexor, and opponens digits minimi), and the IV and V ulnar branches, the adductor pollicis muscle, and the deep head of the flexor pollicis brevis muscle.

Clinical Relevance: Venipuncture can injure the arterial supply to the hand. The radial, ulnar, and middle digital arteries supply the hand, and ulnar neuropathy at the elbow can cause ischemia and pain. Instead, palpatate for the pulse prior to inserting a needle. Angle the insertion toward the muscles instead. That said, nerving vasorum associated with the ulnar artery figure prominently into the cardiovascular and hemodynamic indications of this point.

Figure 5-15. As with the other HT points near the wrist, the ulnar nerve and artery stand in close approximation.

Indications and Potential Point Combinations

- **Chest pain, angina pectoris, palpitations, chest pressure**: HT 6, with HT 2 or HT 3, PC 6, GV 14, BL 10-15
- **Anxiety, insomnia, night sweats**: HT 6 with PC 4, PC 5, or PC 6, GV 20, LR 3
- **Local pain**: HT 6 if tender, along with other trigger points in the flexor carpi ulnaris muscle.

References


Figure 5-14. Points located at or near myotendinous junctions were historically called “X1” or “Cleft” points, signifying a division between the muscle and tendon. HT 6, “Yin Cleft” is such a point along the HT channel, considered a Yin channel because it courses along the inner and palmar surface of the thoracic limb. Tender myotendinous junctions signal active trigger points resulting from irritable nociceptors and poor oxygenation relative to normal myotendinous junctions. Myotendinous junctions in the wrist and hand contain a high density of Golgi tendon organs (GTOs), particularly in the muscular portion of the tendon (Jozsa L, Balint J, Kunnus P, et al. Mechanoreceptors in human myotendinous junction. *Muscle & Nerve*. 1992;16:403-457). GTO’s work with muscle spindles to signal position and respond to active contraction in the muscle as well as passive stretch. Free nerve endings in these zones serve as pain receptors. In addition to responding to active contraction in the muscle as well as passive stretch. 

- **Radial styloid process**
- **Ulnar**
- **Flexor digitorum superficialis m**
- **Flexor digitorum profundus m**
- **Brachioradialis tendon**
- **Extensor pollicis brevis m**
- **Interosseous membrane**
- **Pronator quadratus m**
- **Ulna**
- **Ulnar n**
- **Ulnar a**
- **Flexor carpi ulnaris m**

Figure 5-15. As with the other HT points near the wrist, the ulnar nerve and artery stand in close approximation.