Anterior Forearm - "Misc."

Precautions: Treat these muscles in carpal tunnel syndrome, however, be cautious of the radial artery and median nerve at the wrist.

Preparation: The person is supine or sits in a chair. The non-lubricated arm is semi-supinated and supported on the table. The practitioner stands or is seated.

Step 1: With the person’s forearm in a semi-supinated position, grasp the *brachioradialis* and apply compression at thumb width intervals from the humeral attachment to as far distally as it can be grasped. Repeat several times if tender. A deeper grasp will also treat the *extensor carpi radialis longus* and *brevis*, and (possibly) *supinator*.

Step 2: Apply lubricated gliding strokes to *brachioradialis*. Deeper pressure addresses *extensor carpi radialis longus* and *brevis*, and *supinator*.

Step 3: Displace the brachioradialis and extensor carpi muscles laterally and glide the thumb directly on *supinator*. Repeat on the medial side.

Step 4: Supinate the forearm and apply gliding strokes from the lateral wrist (scaphoid bone) to the elbow crease repeatedly to treat portions of *brachioradialis*, *pronator quadratus*, *flexor digitorum superficialis*, *flexor pollicis longus*, and *pronator teres*.

Continued on next page.
Anterior Forearm - "The Flexors"

Innervation
Radial, ulnar, and median nerves (C5-T1)

Continued from previous page.

Step 5: Move the thumbs medially and continue the gliding strokes on the next strip of the anterior forearm from the wrist to the elbow crease to treat flexor carpi radialis, palmaris longus, flexor digitorum superficialis and pronator teres. Deeper pressure will treat pronator quadratus and flexor digitorum profundus. Do not press deeply at the wrist as the radial artery and median nerve lie deep to the tendons. Continue gliding in strips until the entire anterior forearm has been treated.

Step 6: Transverse snapping palpation can be applied to the pronator teres, which courses diagonally just distal to the crease of the elbow.

Step 7: If appropriate, apply friction to the attachment of the common flexor tendon on the medial epicondyle of the humerus where 5 muscles originate (pronator teres, palmaris longus, flexor carpi ulnaris, flexor carpi radialis and flexor digitorum superficialis).

Note: The supinator can entrap the deep branch of radial nerve.
Posterior Forearm - "The Extensors"

Precautions: Avoid the ulnar and radial nerves at the elbow.

Preparation: The patient is in the same position as the previous page and with the forearm pronated.

Step 1: Apply lubricated gliding strokes repeatedly from the styloid process of the radius to the lateral epicondyle of the humerus to treat **abductor pollicis longus**, **extensor pollicis brevis** and **extensor digitorum**.

Step 2: Apply gliding strokes between the radius and ulna from the wrist to the lateral epicondyle of the humerus. Repeat 6-8 times to treat the **extensor digiti minimi**, **extensor carpi ulnaris**, **extensor pollicis longus**, **extensor digitorum**, and **extensor indicus**.

Step 3: Glide the thumbs 6-8 times on the lateral portion of the posterior forearm from the styloid process of the ulna to the lateral epicondyle of the humerus to treat **extensor carpi ulnaris**, **anconeus** and portions of **brachioradialis**, **extensor carpi radialis longus** and **brevis**, and (possibly) **supinator**. Unidirectional transverse friction (snapping palpation) can be applied to the muscle bellies and tendons, if appropriate.

Step 4: If not excessively tender, friction the attachment of the **common extensor tendon** on the lateral epicondyle of the humerus where 6 muscles attach (**extensor carpi radialis longus** and **brevis**, **extensor digitorum**, **extensor carpi ulnaris**, **supinator** and **anconeus**). This palpable overlapping of tissues can be easily grasped, compressed and manipulated between the thumb and fingers.

Innervation

Radial, ulnar, and median nerves (C5-T1)
Innervation
Radial, ulnar, and median nerves (C5-T1)

Palmar and Dorsal Hand

Precautions:
✴ Do not treat when inflamed arthritis is present.
✴ Avoid pressure directly over wrist.
✴ Do not treat the tendons when swelling over the tendons is present.

Preparation: Practitioner and patient are positioned as in the previous two pages and with the patient's hand supinated. The beveled pressure bar is needed.

Step 1: Compress the thenar eminence to treat the abductor pollicis brevis, flexor pollicis brevis and opponens pollicis.

Step 2: Compress the “web” between the thumb and index finger to treat the adductor pollicis.

Step 3: Compress hypothenar eminence to treat the abductor minimi, flexor digiti minimi brevis and opponens digiti minimi muscles.

Step 4: Apply myofascial spreading to the palmar fascia.

Step 5: Place the beveled pressure bar tip between the metacarpal bones and use friction to treat the lumbricals and palmar interossei.

Step 6: Pronate the hand and use the beveled pressure bar tip to apply friction between of the metacarpal bones to treat the dorsal interossei.

Step 7: The palmar surface, digital tendons and interphalangeal joints of each finger can be scraped with the beveled pressure bar tip provided that inflammation or infection is not present.

For the lengthy list of muscles associated with fine finger and thumb control, see Clinical Application of Neuromuscular Techniques, Vol. 1, The Upper Body or any other detailed anatomy text.
The trigger points and target zones noted are some of the most common patterns for this area but not the only possible patterns of referral. Trigger point target zone illustrations are from the Mediclip Manual Medicine 1 & 2 collections, 1997, Williams & Wilkins. A Waverly Company.
Suggested Study List for NMT

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Juhan D 1998 Job’s body, expanded edn. Station Hill Press, Barrytown, NY
Levangie P, Norkin C 2011 Joint structure and function: a comprehensive analysis, 5th edn. F A Davis, Philadelphia
Lowe W 2006 Orthopedic assessment in massage therapy. Daviau Scott, Sisters OR
Mense S, Simons D 2001 Muscle pain: understanding its nature diagnosis and treatment. LWW, Philadelphia

Websites Worthy of a Visit

www.drlowe.com - fibromyalgia; discussion of thyroid
www.bodyworkmovementtherapies.com - Journal of Bodywork and Movement Therapies
www.fleshandbones.com - anatomy, games, illustrations
www.getbodysmart.com - free site anatomy with details
www.howstuffworks.com - many topics, including body
www.johnleemd.com - hormonal therapy
www.medlineplus.gov - medical library services
www.merckmanuals.com - access the Merck Manual
www.nlm.nih.gov - Nat'l Lib. of Medicine
www.nmtcenter.com - NMT American Version™
www.pdrhealth.com - physician's desk reference
www.sciencedirect.com - medical library services (fees)
www.scholar.google.com - academic articles on google
www.whonamedit.com - how items got names

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