



The Pesky Elbow

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- I have no relevant financial disclosures

Case

HPI



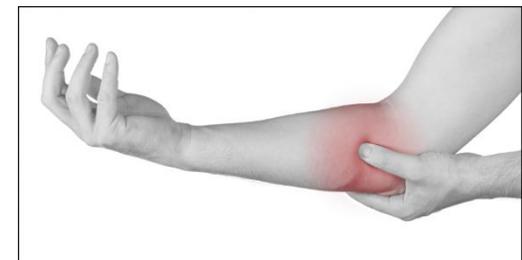
<https://heightandweights.com/michael-jordan/>

Physical Exam

- **General:** A&O x3 with no distress; appears well nourished, very fit
- **Skin:** no rashes, no bruising, dry skin
- **HEENT:** Normocephalic, atraumatic
- **CV:** regular rate
- **Resp:** Normal respiratory effort
- **Neuro:** intact sensation UE bilaterally

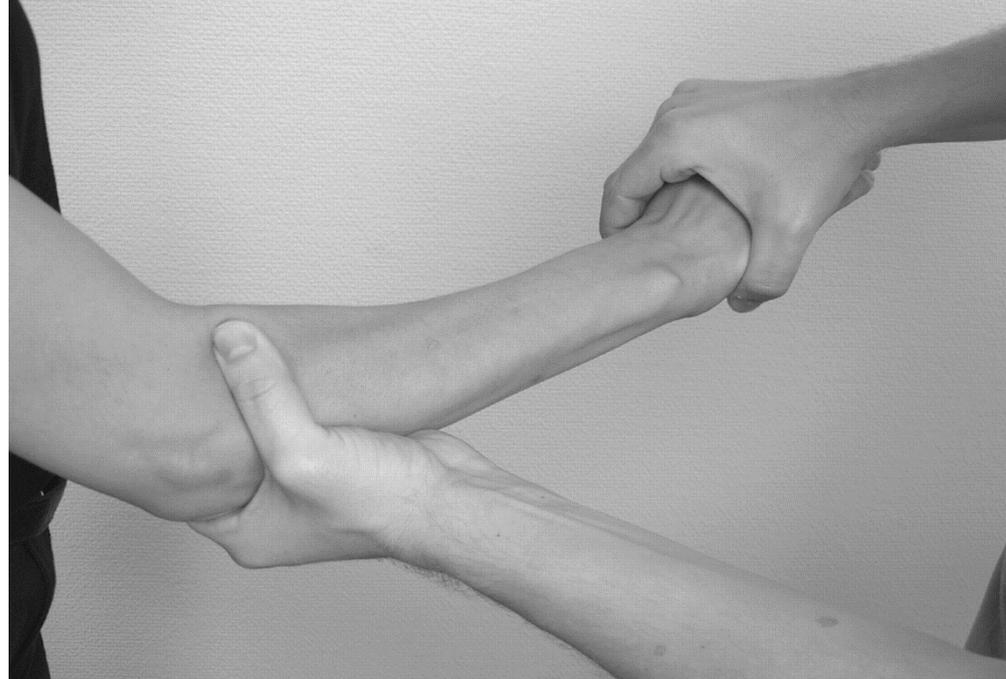
Physical Exam Elbow

- Tenderness to palpation medial epicondyle right humerus
- Mild edema noted medial elbow
- ROM restricted in pronation to 50°
- Strength 5/5 bilaterally with pain on right side with resisted elbow and wrist flexion



Physical Exam – Special tests

- Tennis Elbow/Lateral epicondylitis:
 - Cozen's Test– Make fist, pronate, extend wrist and fingers against resistance



Physical Exam – Special tests

- Golfer's Elbow/Medial epicondylitis:
 - Supinate Arm, extend elbow and wrist against resistance



Focused Medical Tent Osteopathic Exam

Findings:

- Hypertonic R upper trapezius
- Hypertonic L serratus anterior
- Hypertonic R pectoralis major
- Tender point right medial epicondyle
- Interosseous membrane strain between radius and ulna

Treatment: Soft tissue- Trapezius and upper thoracic

- I DREAM OF GENIE
- Easy to do on a chair or on the bench



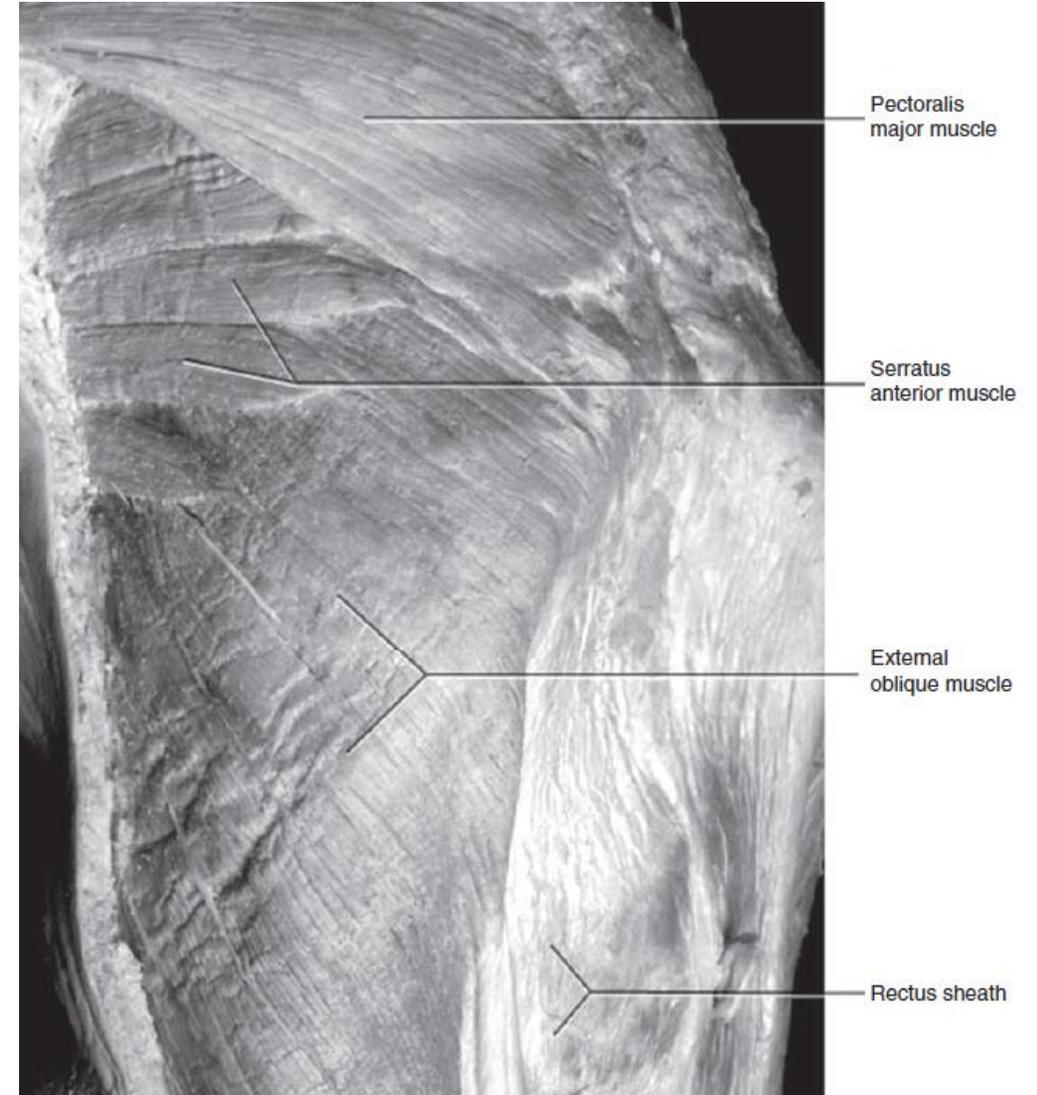
FIGURE 7.72. Step 6.

Pectoralis Major/Serratus

Myofascial Release Pectoralis Major



<https://youtu.be/iSyEOS3F3dE>



Chila, A. (2011). *Foundations of osteopathic medicine*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Muscle Energy Serratus Anterior Seated



FIGURE 10.96. Step 4, isometric contraction.

Nicholas, A. S., & Nicholas, E. A. (2008). *Atlas of osteopathic techniques*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Counterstrain- Medial Epicondyle

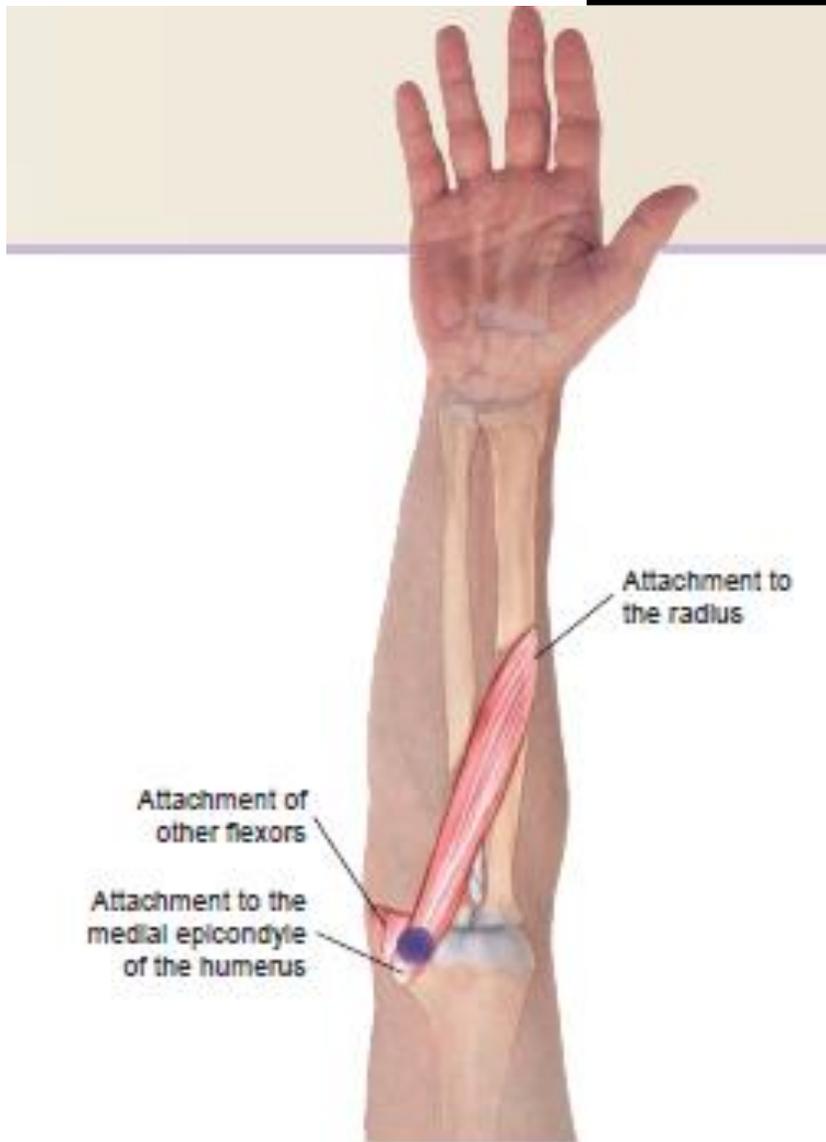


FIGURE 9.204. Medial epicondyle counterstrain tender point. (Modified with permission from Ref. (5))

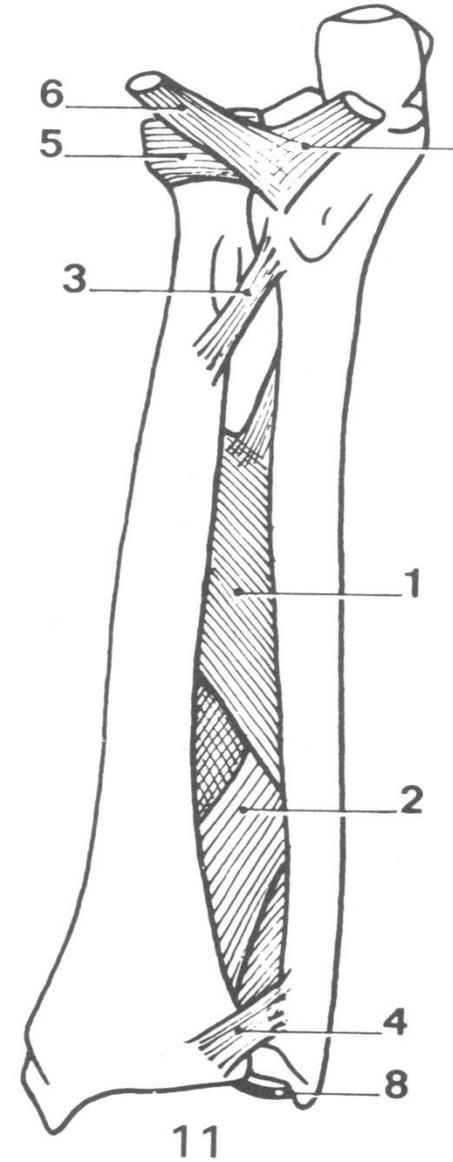


FIGURE 9.206. Medial epicondyle: F Pro add.

Flexion, Pronation, Adduction

Interosseous Membrane: Parallelogram Effect

- The wrist and elbow are connected through the:
 - Interosseous membrane between the Radius and Ulna.
 - Proximal and Distal Radio-Ulnar joints.
- Strain on wrist and forearm can easily strain the interosseous membrane.



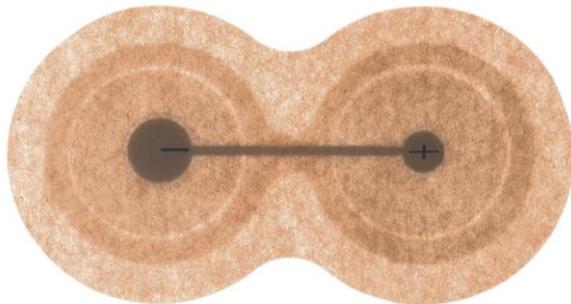
Seated, Indirect, Respiratory Force: Radio-Ulnar Interosseous membrane

- Stack elbow to point of ease
 - Balanced Ligamentous Tension
- Maintain elbow and stack wrist
- Focus your attention mid-forearm on the interosseous membrane
- Test respiratory phases
- Hold for release
 - Do NOT unwind!



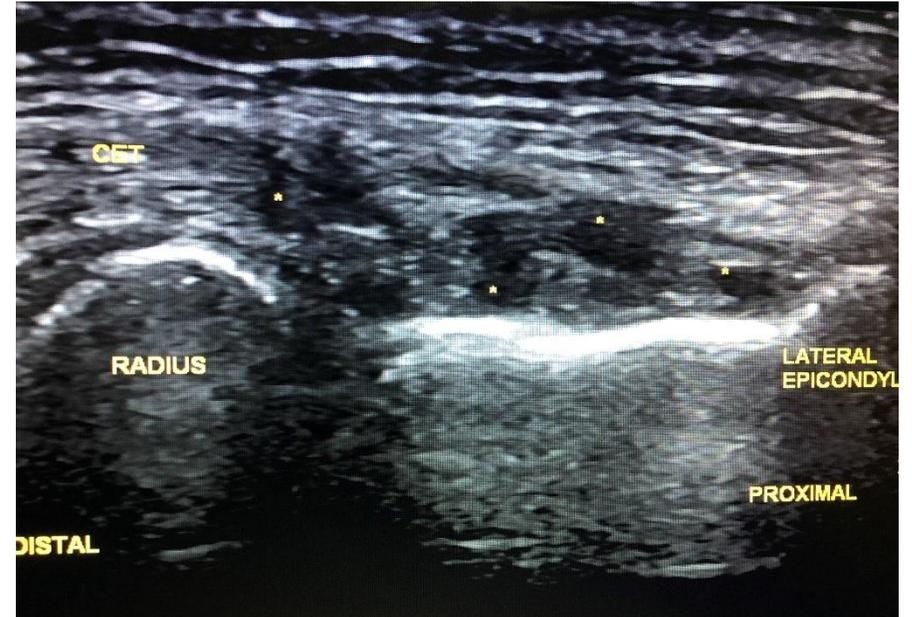
Treatment: Day of Presentation

- On golf course/club house:
 - OMT
 - KT taping
- After rounds completed:
 - Ice
 - Iontophoresis patch



Office Follow Up

- Golf swing/grip evaluation
- Xray elbow if not improving
- MSK Ultrasound of elbow
- Home Exercise Plan vs PT



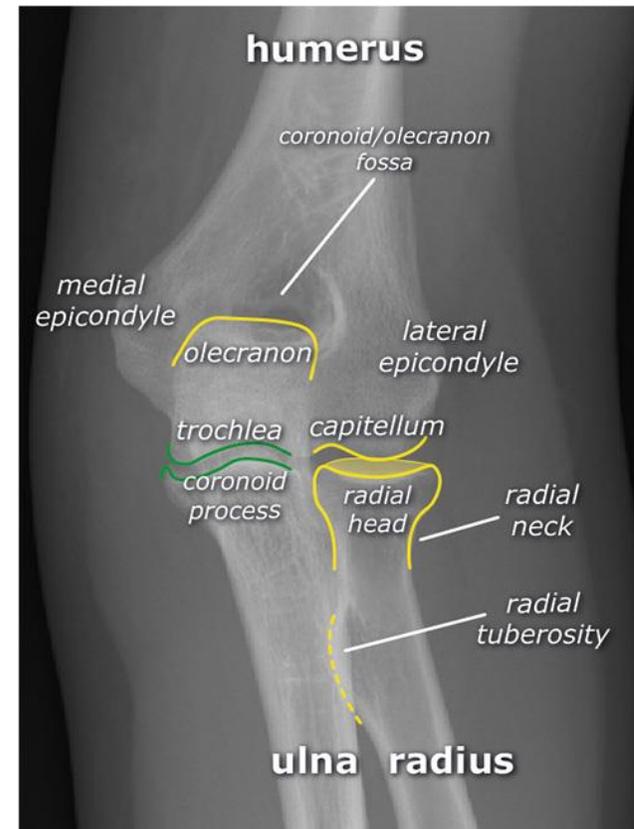
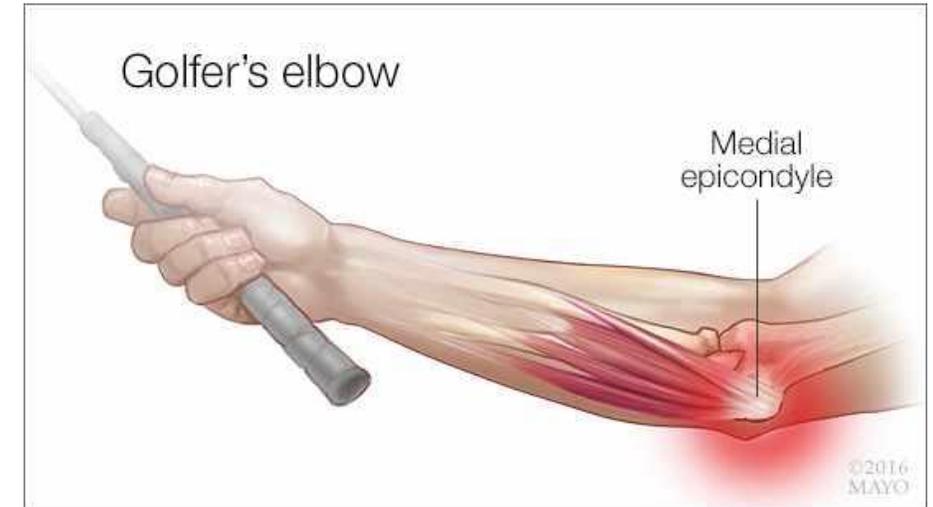
Office Follow:Up Osteopathic Exam Findings

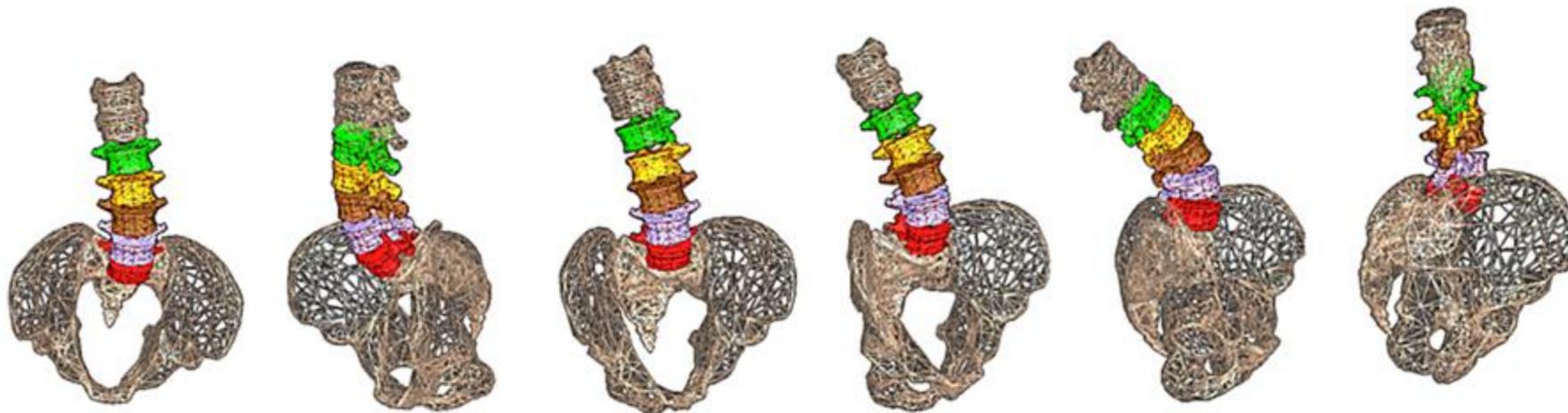
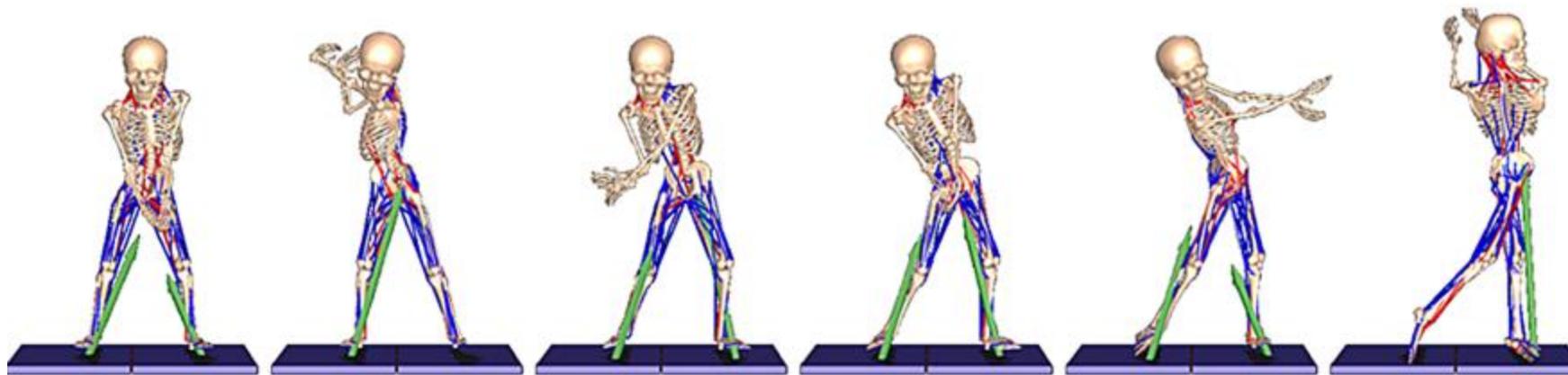
- Hypertonic R upper trapezius
- Hypertonic L serratus anterior
- Left Ribs 4-5 exhalation dysfunction
- Left anterior innominate
- Hypertonic R>L Tensor Fascia Latae and IT band
- Anterior fibular head left



Case: Medial Epicondylitis

- Degenerative condition of common flexor tendon due to overuse and/or injury to the tendon
- **Hx:** 45-54y with chronic pain to the medial aspect of the elbow. Worse with flexion of the wrist.
- **Imaging:** Xray, MRI, US





address top back swing down swing impact follow through finish

Treatment Medial Epicondylitis

- First line: Activity Modification with eccentric strengthening and stretching exercises.
- Evaluate biomechanics/grip
- Counterforce brace
- Iontophoresis
- OMT
- Injection
 - Prolotherapy, PRP, corticosteroid
- Percutaneous tenotomy or open surgical debridement



Return to Play- Medial Epicondylitis

- Variable- should have no pain with normal ROM

Rehab Exercises



Standing Wrist Flexion Stretch

SETS: 3 | HOLD: 30 sec | WEEKLY: 5x | DAILY: 2x

Setup

- Begin in a standing upright position with one arm in front of your body, palm facing the floor.

Movement

- With your other hand, bend your wrist downward until you feel a stretch.

Tip

- Make sure to keep your elbow straight and try not to apply too much pressure, this should be a gentle stretch.



Standing Wrist Extension Stretch

SETS: 3 | HOLD: 30 sec | WEEKLY: 5x | DAILY: 2x

Setup

- Begin in a standing position with one arm in front of your body, palm facing the ceiling.

Movement

- With your other hand, apply a gentle downward pressure on your fingers, bending your wrist and keeping your elbow straight.

Tip

- You should feel a stretch in your wrist. Try not to apply too much pressure, this should be a gentle stretch.



Standing Radial Nerve Glide

REPS: 10 | SETS: 3 | HOLD: 5 | WEEKLY: 5x | DAILY: 1x

Setup

- Begin standing upright with your arms at your side.

Movement

- Gently drop your shoulder keeping your arm straight. Rotate your arm inward and turn your palm away from your body, then bend your wrist. Slowly raise your arm out to your side, then gently bend your neck away from your raised arm. Hold briefly, then return to the starting position, and repeat.

Tip

- Make sure to move slowly and keep an upright posture. Only move through a pain-free range of motion.



Tennis Elbow Self Massage

REPS: 10 | SETS: 3 | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

You may also use a tennis ball, golf ball or lacrosse ball to perform this.

Setup

- Begin sitting in a chair with your arm bent and supported by a table.

Movement

- With the unsupported arm, place two fingers on the outside of your arm just above your elbow and massage in backward and forward strokes using a gliding motion.

Tip

- Make sure to keep your supported arm relaxed during the massage.



Seated Isometric Wrist Flexion Supinated with Manual Resistance

REPS: 10 | SETS: 3 | HOLD: 5 sec | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

Perform at various ranges of motion

Setup

- Begin with your palm facing up and fingers straight with your opposite hand gently on top of your palm.

Movement

- As you bend your wrist up, resist this movement with your top hand. Pause briefly, then return to the starting position.

Tip

- There should be no movement with this exercise.

Rehab Exercises



Seated Isometric Wrist Extension

REPS: 10 | SETS: 3 | HOLD: 5 sec | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

Perform at various ranges of motion

Setup

- Begin sitting upright with your arm resting on a table, palm down, and your other hand on top of your involved hand.

Movement

- Try bending your wrist upward, resisting the movement with your other hand. Then relax and repeat. There should be little to no movement.

Tip

- Your fingers may lift off the table, but make sure to focus on trying to bend at your wrist. Keep your shoulder relaxed during the exercise.



Wrist Flexion with Resistance Bar

REPS: 15 | SETS: 3 | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

May be performed with TheraBand or dumbbell.

Setup

- Begin in a standing upright position with your arms straight in front of you, holding a flex bar in both hands, palms facing down.

Movement

- With one hand, slowly bend your wrist downward, rotating your palm toward your body, slowly return and then repeat.

Tip

- Make sure to focus the movement just on your wrist, and keep the end of the bar stable with your other hand.



Wrist Extension with Resistance Bar

REPS: 15 | SETS: 3 | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

May be performed with TheraBand or dumbbell

Setup

- Begin in a standing upright position with your arms straight in front of you, holding a flex bar in both hands, palms facing down.

Movement

- With one hand, slowly pull up against the bar to rotate your palm up and away from your body, slowly return, then repeat.

Tip

- Make sure to focus the movement just on your wrist, and keep the end of the bar stable with your other hand.



Forearm Supination with Resistance

REPS: 15 | SETS: 3 | WEEKLY: 5x | DAILY: 1x

Clinician Notes:

May be performed with dumbbell

Setup

- Begin sitting with your forearm resting on your thigh, holding one end of a resistance band that is anchored under your foot. Your palm should be facing up with the band running between your thumb and index finger.

Movement

- Slowly rotate your wrist so your palm faces downward, then rotate it back to the starting position and repeat.

Tip

- Make sure not to bend your wrist as you rotate your arm, and keep your shoulder relaxed.

Rehab Exercises



Forearm Pronation with Resistance

REPS: 10 | SETS: 3 | WEEKLY: 7x | DAILY: 1x

Clinician Notes:

May be performed with dumbbell

Setup

- Begin sitting with your forearm resting on your thigh, holding one end of a resistance band that is anchored under your foot. Your palm should be facing down, with the band running between your thumb and index finger.

Movement

- Slowly rotate your wrist so your palm faces upward, then rotate it back to the starting position and repeat.

Tip

- Make sure not to bend your wrist as you rotate your arm, and keep your shoulder relaxed.



Standing Shoulder Row with Anchored Resistance

REPS: 10 | SETS: 3 | HOLD: 2-3 sec | WEEKLY: 5x | DAILY: 1x

Setup

- Begin in a standing upright position holding both ends of a resistance band that is anchored in front of you at chest height.

Movement

- Pull your arms back against the resistance, bending your elbows, then slowly return to the starting position and repeat.

Tip

- Make sure to keep your back straight and think of squeezing your shoulder blades together as you pull your arms back.



Putty Squeezes

REPS: 5-10 | SETS: 3 | HOLD: 10 sec | WEEKLY: 5x | DAILY: 1x

Setup

- Begin sitting with your hand in a comfortable position, holding putty in your palm.

Movement

- Gently squeeze the putty using all of your fingers equally, and repeat.

Tip

- Make sure to keep the rest of your arm relaxed during the movement.



AOASM²⁰₂₀

American Osteopathic Academy of Sports Medicine

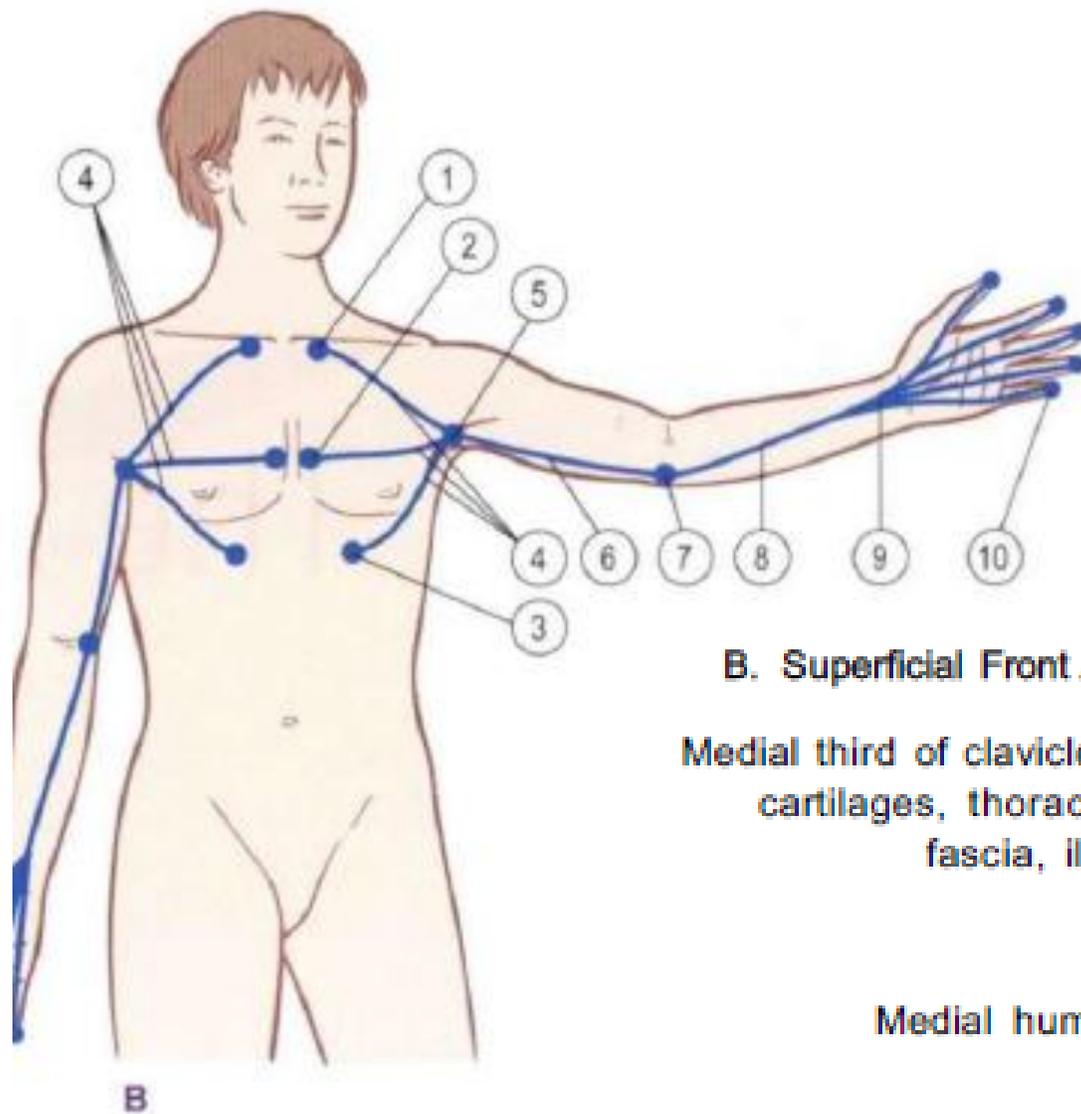
APRIL 29-MAY 3

Preconference: April 27-28

Disneyland
RESORT



As to Disney properties/ artwork: © Disney



B. Superficial Front Arm Line

Medial third of clavicle, costal cartilages, thoracolumbar fascia, iliac crest

2 Pectoralis major, latissimus dorsi

Medial humeral line

4 Medial intermuscular septum

Medial humeral epicondyle,

6 Flexor group

7 Carpal tunnel

Palmar surface of fingers

8

Spiral Line

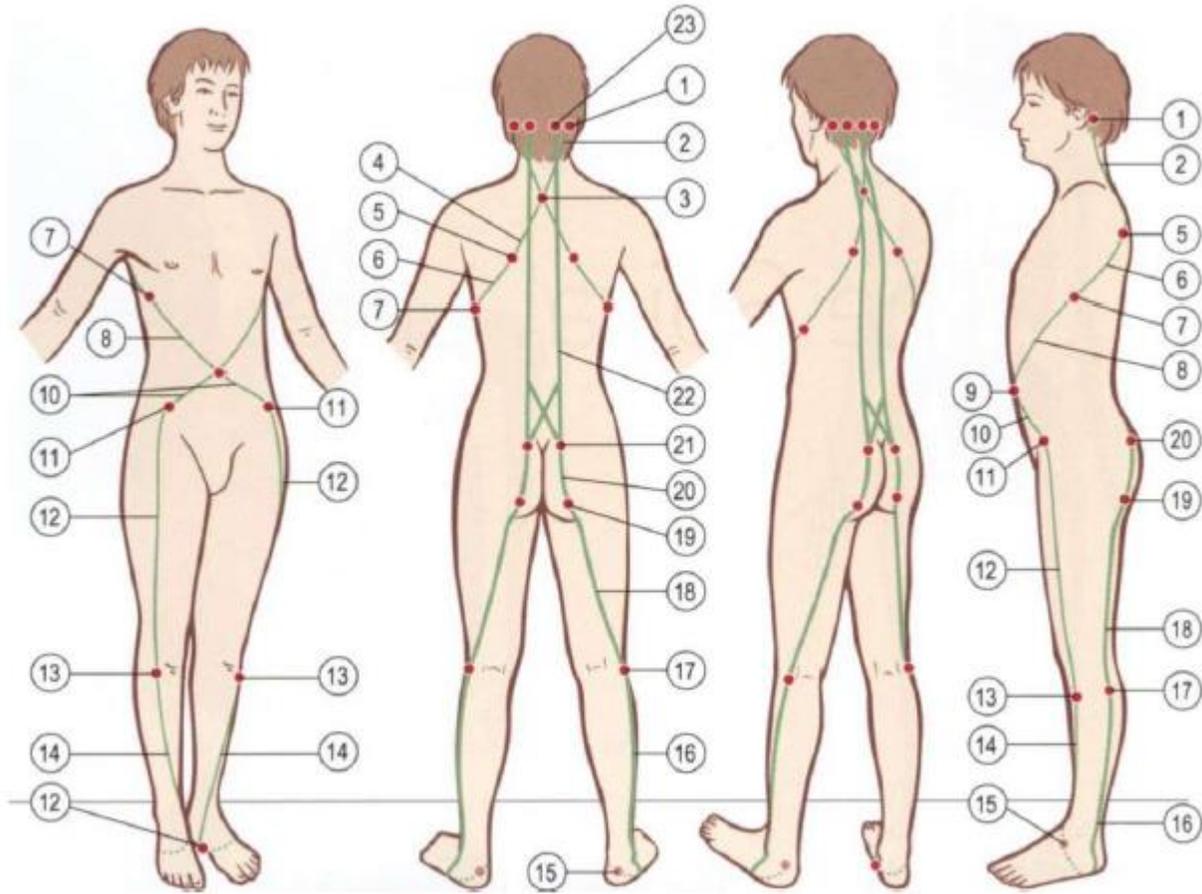


Table 6.1 Spiral Line: myofascial 'tracks' and bony 'stations' (Fig. 6.2)

Bony stations	Myofascial tracks
Occipital ridge/mastoid process atlas/axis TPs	1
Lower cervical/upper thoracic SPs	2 Splenius capitis and cervicis
Medial border of scapula	3
Lateral ribs	4 Rhomboids major and minor
	5 Serratus anterior
	6 External oblique
	7 Abdominal aponeurosis, linea alba
	8 Internal oblique
Iliac crest/ASIS	9
	10 Tensor fasciae latae, iliotibial tract
Lateral tibial condyle	11
1st metatarsal base	12 Tibialis anterior
Fibular head	13 Peroneus longus
Ischial tuberosity	14 Biceps femoris
Sacrum	15 Sacrotuberous ligament
	16 Sacrolumbar fascia, erector spinae
Occipital ridge	17
	18
	19
	20
	21
	22
	23