Elbow tendinopathy (tennis and golf elbow) - UpToDate

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INTRODUCTION

• Lat & med elbow tendinopathy: Pain at the tendon insertion or myotendinous junction of flexor or extensor muscle groups
• overall incidence: 1 to 3%
• LET 3 more than MET
• MET: most common in the 45- to 64 y/o; Women > male; More dominant arm
INTRODUCTION

- relatively common condition, particularly among tennis players and golfers, and manual laborers
- infrequently among advanced players and is more common among recreational players
- 90% of cases occur outside of sport
Risk factors

• Smoking
• obesity
• age 45 to 54
• repetitive movement for at least two hours daily
• forceful activity (physical loads over 20 kg)
• Vibrating device activity (jackhammer)
Poor prognosis

• high physical strain at work
• dominant side involvement
• concomitant neck pain (with or without signs of nerve root involvement)
• duration of symptoms greater than three months
• severe pain at presentation
CLINICAL ANATOMY

A. Anterior view
- Humerus
- Joint capsule
- Lateral epicondyle
- Radial collateral ligament
- Ulnar collateral ligament
- Anular ligament of radius
- Biceps brachii tendon
- Insertion of brachialis
- Oblique cord
- Radius
- Ulna
- Interosseous membrane

B. Lateral view
- Humerus
- Joint capsule
- Radial collateral ligament
- Anular ligament of radius
- Anular ligament of radius
- Triceps brachii tendon
- Biceps brachii tendon
- Radius
- Ulna
- Subcutaneous olecranon bursa
- Oblique cord
- Insertion of brachialis muscle

C. Medial view
- Humerus
- Joint capsule
- Radial collateral ligament
- Anular ligament of radius
- Anular ligament of radius
- Triceps brachii tendon
- Biceps brachii tendon
- Radius
- Ulna
- Subcutaneous olecranon bursa
- Oblique cord
- Insertion of brachialis muscle
CLINICAL ANATOMY

• lateral humeral epicondyle: common origin of the wrist and extrinsic hand extensors
• medial humeral epicondyle: common origin of the wrist and extrinsic hand flexors
lateral elbow tendinopathy (LET)

• extensor carpi radialis brevis (felt at tip of lateral epicondyle)
• occasionally the extensor digitorum communis muscle (felt just posterior and distal to tip of lateral epicondyle)
medial elbow tendinopathy (MET)

- pronator teres m.
- flexor carpi radialis m.
PATHOPHYSIOLOGY

• Chronic process
• degenerative tendinosis
• angiofibroblastic process; few inflammatory cells are found in these lesions
• degenerative tendinosis and neovascularization is the focus of emerging treatments
CLINICAL PRESENTATION AND EXAMINATION

• symptoms classified as mild, moderate, or severe
• stage of tendinopathy based on ultrasound appearance
• some patients have symptoms for a relatively short period but have late-stage tendinopathy
PAIN

• range from minimal to severe, interfering with even basic daily tasks and sleep

• exacerbated by repetitive movements of the wrist and elbow

• may also be elicited with resisted wrist pronation or supination or grip, particularly when the elbow is in full extension
LET examination findings and tests

• Localized tenderness over the lateral epicondyle and proximal wrist extensor muscle.
LET examination findings and tests

• Pain with resisted wrist extension with the elbow in full extension

Examination of wrist extension

Pain with resisted wrist extension with the elbow in full extension is characteristic of lateral epicondylitis.
LET examination findings and tests

- Pain with passive terminal wrist flexion with the elbow in full extension
LET examination findings and tests

BOOK TEST

TENNIS ELBOW TEST
MET examination findings and tests

- Localized tenderness over the medial epicondyle and proximal flexor muscle mass
- Ulnar nerve/ulnar groove and MCL should not be tender
MET examination findings and tests

- Pain with resisted wrist flexion (and pronation) with the elbow in full extension
MET examination findings and tests

- Pain with passive wrist extension with the elbow in full extension

Passive extension of the wrist

Pain with passive terminal wrist extension with the elbow in full extension is consistent with medial epicondylitis.
MET examination findings and tests

modified version of the book test
golfer's elbow test
با تشکر از حسن توجه شما