



# Tennis Elbow

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# Plan

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- Core Knowledge
- Current Evidence/ Controversies
- Summary



# What is Tennis Elbow?

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- Overuse syndrome due to repetitive tension overloading of the wrist extensor origins at the lateral epicondyle.

# Magnitude of the problem?

5<sup>TH</sup> COMMON INJURY





# What causes it

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- Racquet sports
- Nondominant arm in golfers
- Hammering & use of screw driver!
- Dorsiflexion/Supination
- Vibration/small grip/ faulty backhand



# Pathology

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- Microscopic tear in Tendon fibers ECRB
- JBJS Am 2007 anatomical factors
- Tendon invaded by fibroblasts, vascular granulation tissue and myofibroblasts
- This degenerative & Repair is called angiofibroblastic hyperplasia
- Absence of acute/chronic inflammation (Tendinosis)



# Symptoms

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- Sharp pain in lateral elbow
- Worse with heavy Gripping
- supination/pronation



# General Physical examination

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- Over-development of dominant arm





# Signs



- Provocative maneuvers
- Resisted middle finger extension
- Resisted wrist extension (Mill's Test) / Resisted supination



# Differential Diagnosis

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- **Common**
  - Lateral epicondylitis
  - Radial head fracture / referred pain
- **Less common**
  - PIN compression syndrome
  - Lateral plica
  - Posterolateral instability
- **Not to be missed**
  - Radiocapitellar OA / Chondromalacia/OCD



# Investigations

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- Usually none
- Plain Radiographs (OCD/OA/  
Calcification)
- USS



# Treatment

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- No single Rx effective
- Basic principles of soft tissue injury
- Control pain/ Inflammation (RICE)
- Modify activity/Technique/Racquet
- Corticosteroid injection
- Surgery



# Open VS Percutaneous Release

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- RCT (47) JBJS [Br]2004
- Outcome-DASH
- FU 12/12
- Per group returned to work 3 weeks early
- Improvement in DASH score/ sporting activity better



# Operative RX-evidence

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- Maffulli et al 2008
- BMB 2008
- Literature review (MEDLINE, CINAHL, EMBASE)
- CMS method/ two reviewer
- No evidence that one operation better than other



# Tennis Elbow evidence

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- Cowan et al 2007
- JBJS Am
- >90% of published work on Tennis elbow low quality



# Summary

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- Non-operative management is the mainstay of treatment
- Debate persists
- Recent studies report similar outcome with A/O (JBJS Am 09)
- Either is acceptable as long as pathological tissue is accurately identified and resected





# References

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- Core knowledge –Books ( Campbell,08; Turk,05; Current,05; Secrets, Clinical Sports med,05; Miller,07)
- Current evidence (JBJS)
- Illustrations (www)



# Thank you

