

# Multi-Site Tendinopathies

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Upper Limb Surgeon

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- Orthopaedic Surgeon for 7 years
  - Weekly clinics and theatre in Beacon Hospital
  - Shoulder Arthroscopic Procedures and Replacements
  - Elbow Tendinopathies and Arthroscopy
  - Hand and Wrist Surgery

# Mesenchymal Syndrome

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- Collection of migrating and recurrent tendinopathies in the same individual, in the absence of an inflammatory arthritis.
- Different to Fibromyalgia

# Presentation Structure Today

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- Overview of the concept of Mesenchymal Syndrome
- The service we can offer you in the Management of your patients with individual upper limb tendinopathies here in the Beacon Hospital

# Usefulness of diagnosis of a Syndrome?

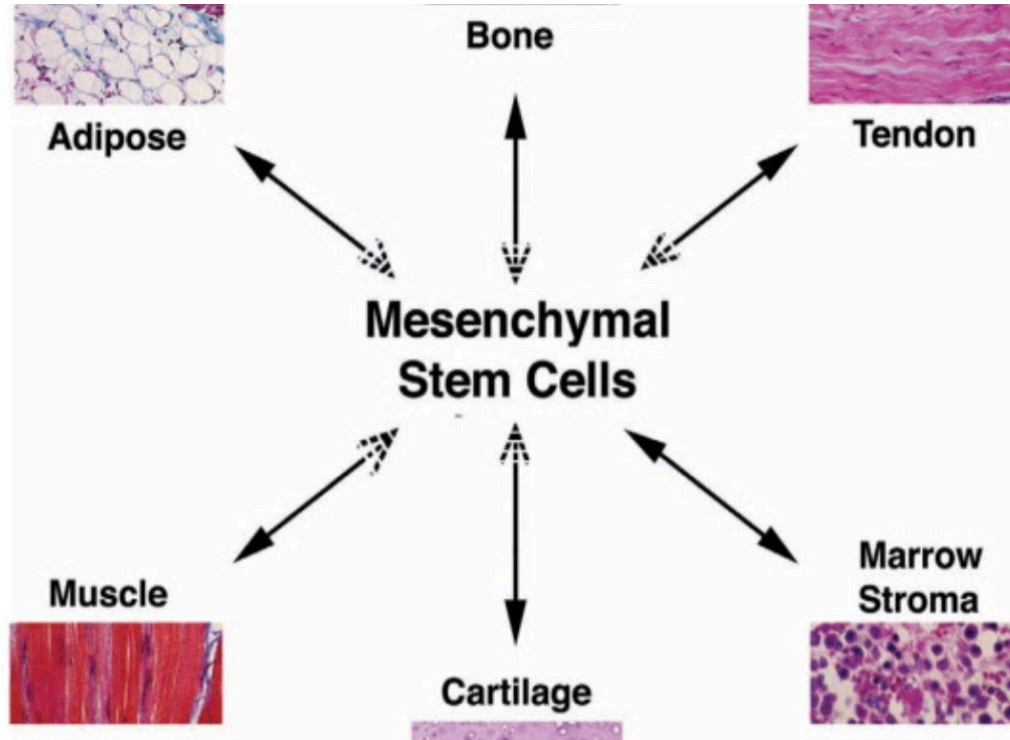
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Usefulness of  
diagnosis of a  
Syndrome?

Look out for symptoms

Prophylactic care and  
occupational advice.

# Origin of Name



## Aetiology

Type V collagen (*COL5A1*)  
and Tenascin C (*TNC*) genes

Age

### **We are committed to rapid access**

- Reduce symptom load
- Shorten disease process
- Mitigate against develop of severe disease



# Upper limb Tendinopathies include;

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Rotator cuff  
tendinopathy –  
capsulitis – adhesive  
capsulitis spectrum

Elbow  
tendinopathies

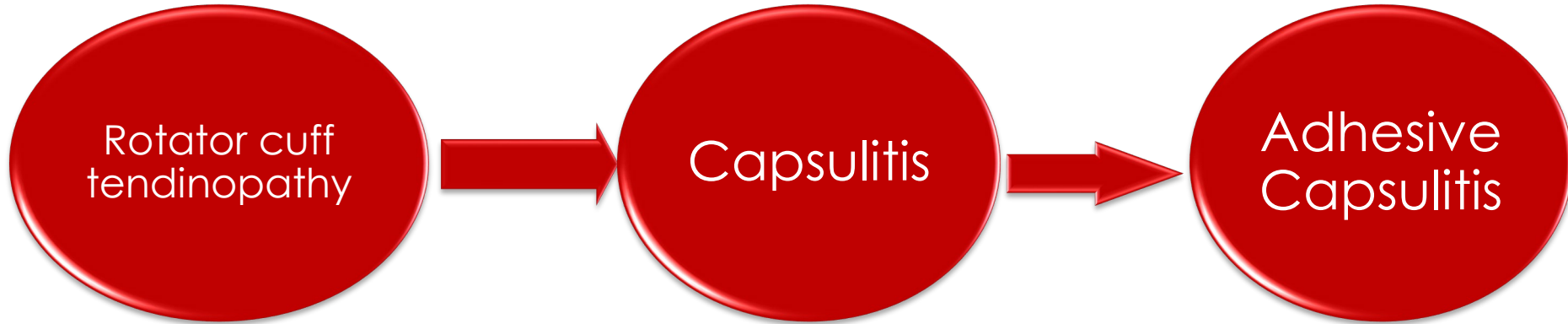
Flexor  
tendinopathies

- Trigger finger
- Carpal tunnel syndrome

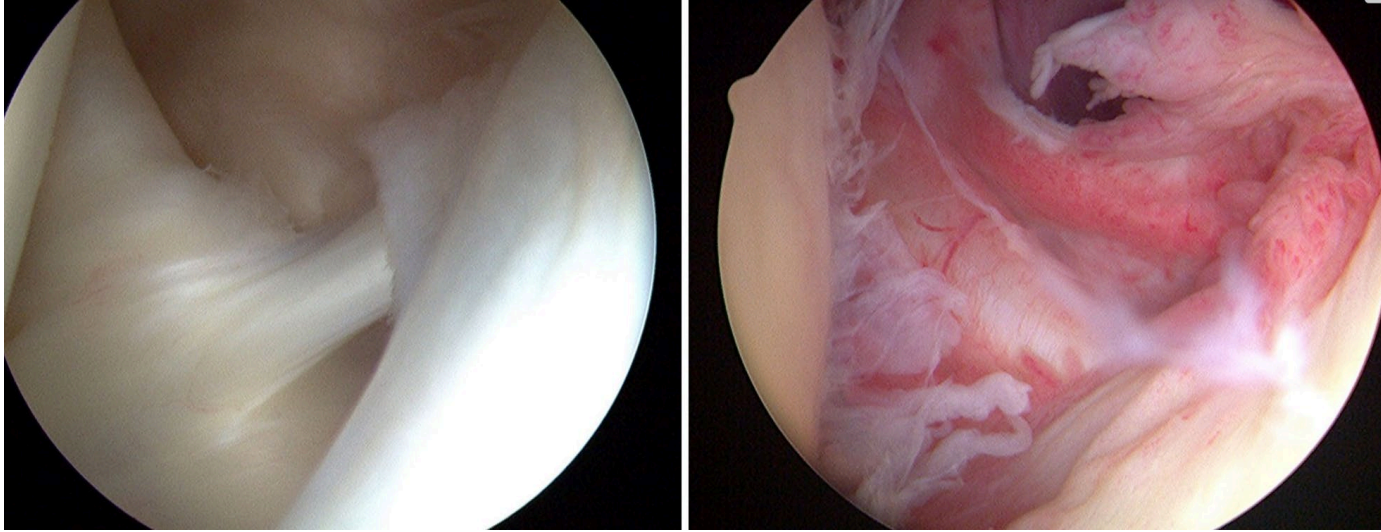
Extensor  
tendinopathies

# Shoulder Tendinopathy Spectrum

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# Shoulder Tendinopathy - Capsulitis



- Dull or aching pain in the outer shoulder area, and the upper arm.
- Pain worse at night. Unable to lie on that side.

# Capsulitis or Adhesive capsulitis

30 degree  
difference in  
external  
rotation



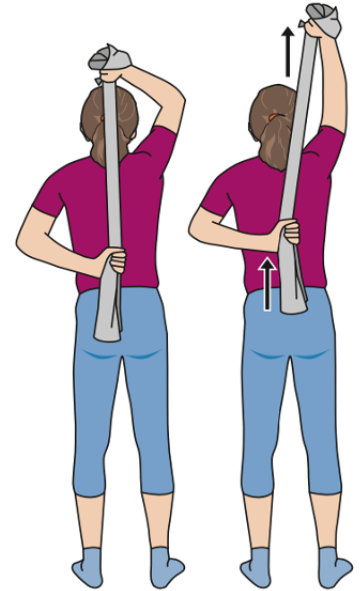
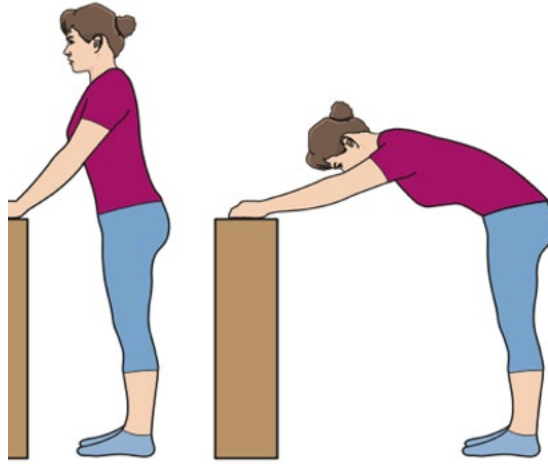
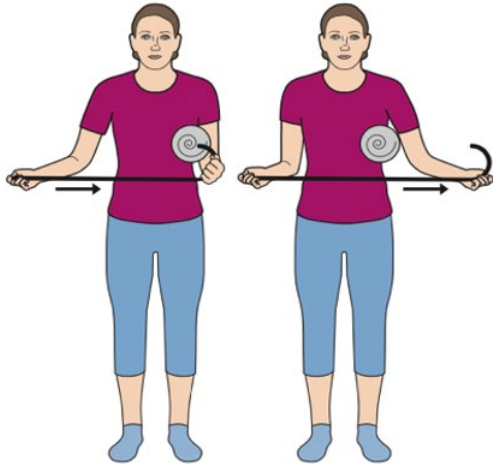
## Patient experience

## Shoulder Capsulitis

- **1<sup>st</sup> Visit within 21 days of initial referral**
- Beacon Orthopaedic Clinic
  - Assessment – Injection – Physio session +/- booking MRI
- **2<sup>nd</sup> Visit at eight weeks to Radiologist**
- Beacon Radiology Dept
  - USS guided steroid injection +/- hydrodilataion
- **3<sup>rd</sup> Visit at sixteen weeks**
- Beacon Orthopaedic Clinic
  - Clinic based injection or in theatre

# Physio Input for Shoulder Capsulitis

- Patient led capsular stretch exercises.



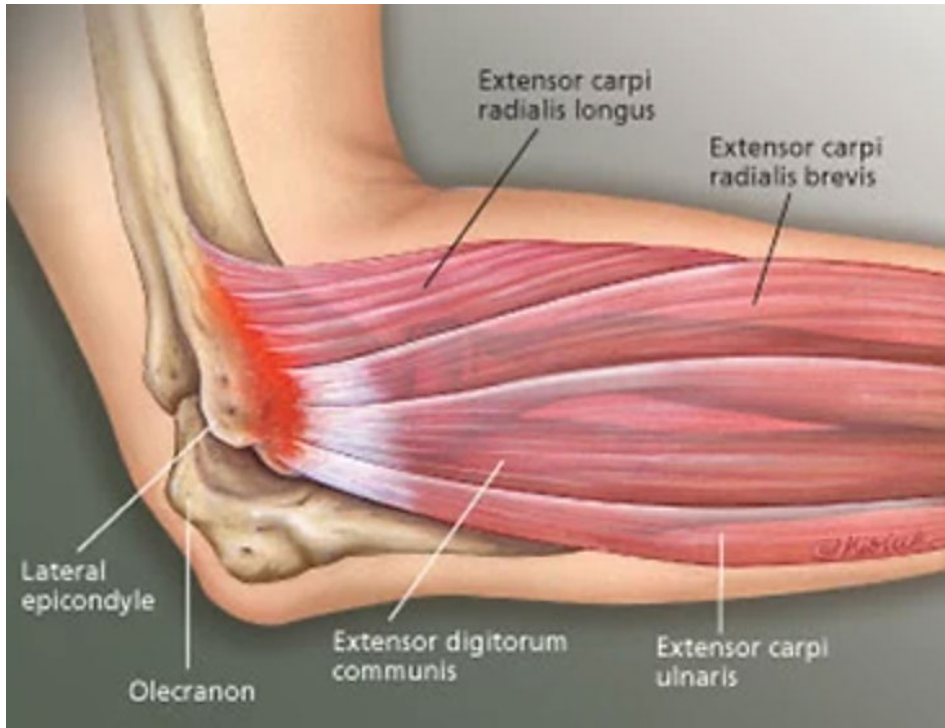
## Management of residual stiffness in Shoulder Capsulitis

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- Arthroscopic capsular release or Manipulation under GA (when pain no longer main symptom)



# Tennis Elbow





# Tennis Elbow Management

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## First Clinic Visit

- Assess +/- steroid injection and Physio

## Second Clinic Visit (on PRN basis)

- Second steroid injection if severe or PRP if milder

## Third Clinic Visit (on PRN basis)

- Offered Surgery

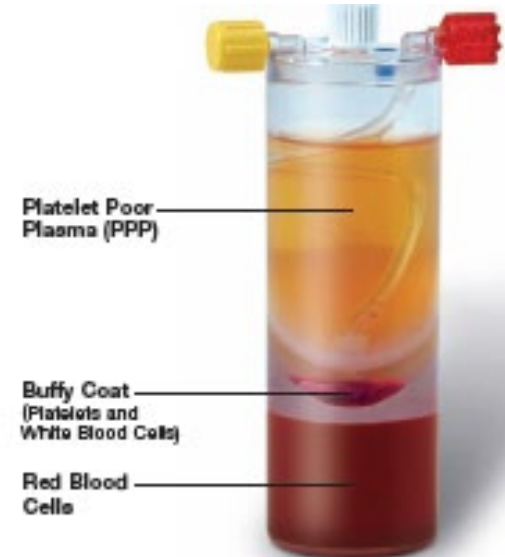
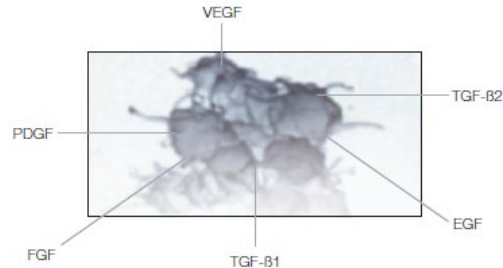
## Injections

- Local anaesthetic and steroid (Two maximum)
- Platelet rich plasma (About 5% more effective than steroids)

# Tennis elbow

## Platelet Rich Plasma (PRP);

- VEGF – Vascular endothelial growth factor
- PDGF – Platelet derived growth factor
- FGF – Fibroblast growth factor
- TGF B – Transforming growth factor
- EGF – Epithelial growth factor



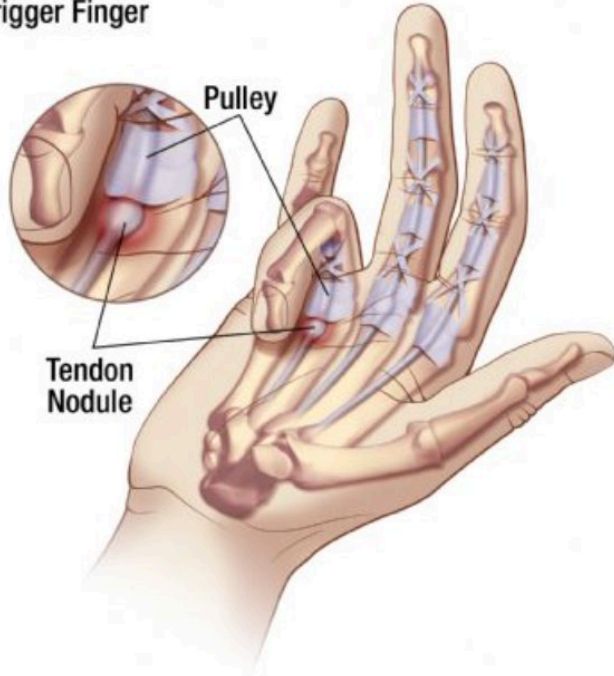
## Wrist and hand tendinopathies

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- Trigger Finger
- Carpal tunnel syndrome
- De Quervain's

# Trigger Finger

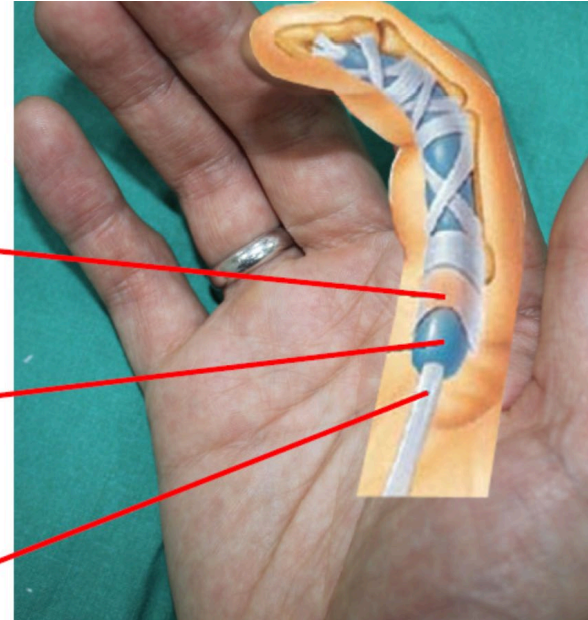
Trigger Finger



Thickened A1 pulley

Inflamed synovium

Flexor tendon



# Trigger finger Management

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## 1<sup>st</sup> Visit to Clinic

- Assessment – Offered steroid injection – Physio review

## 2nd Visit to Clinic (at patient request) ~ 50%

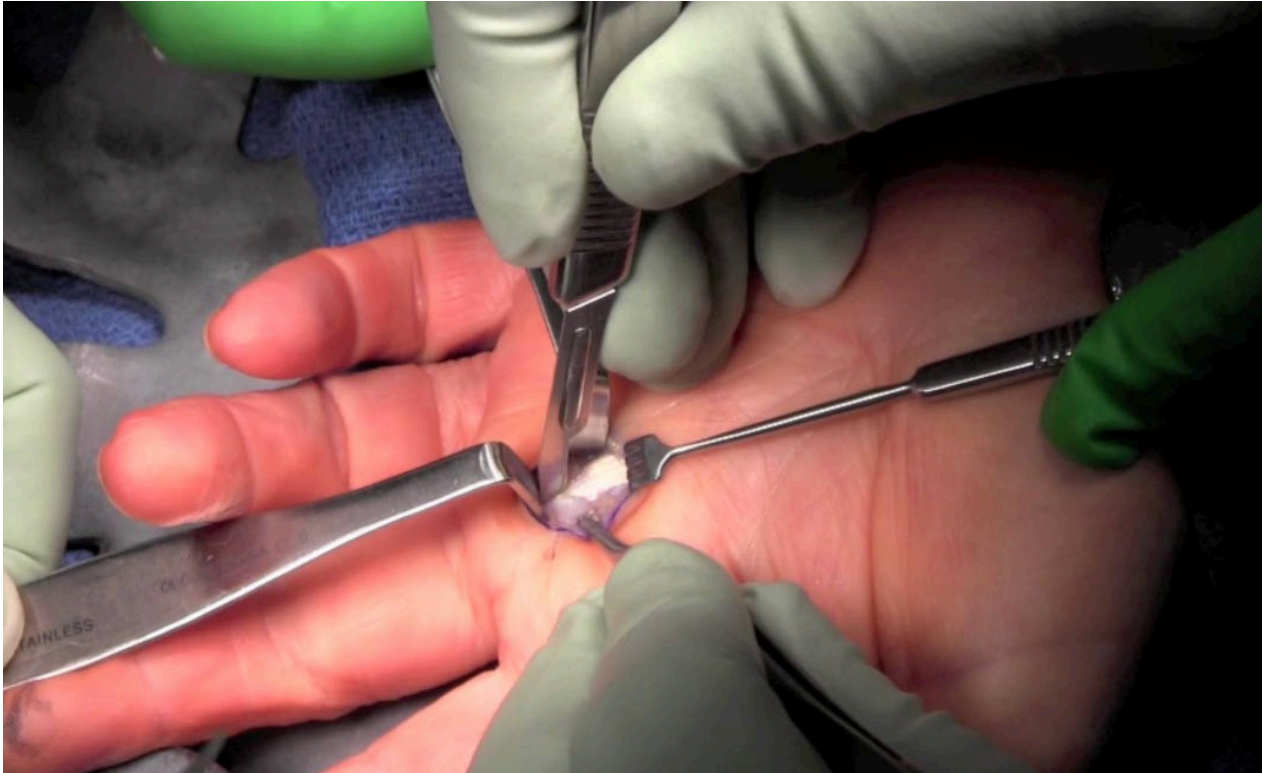
- Second steroid injection or surgery (as per patient preference)

## 3rd Visit to Clinic (at patient request) ~ 30%

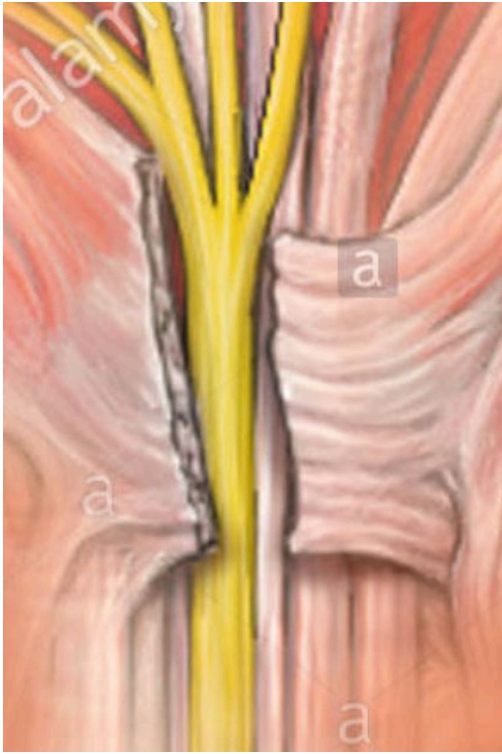
- Offered surgery

# Surgery

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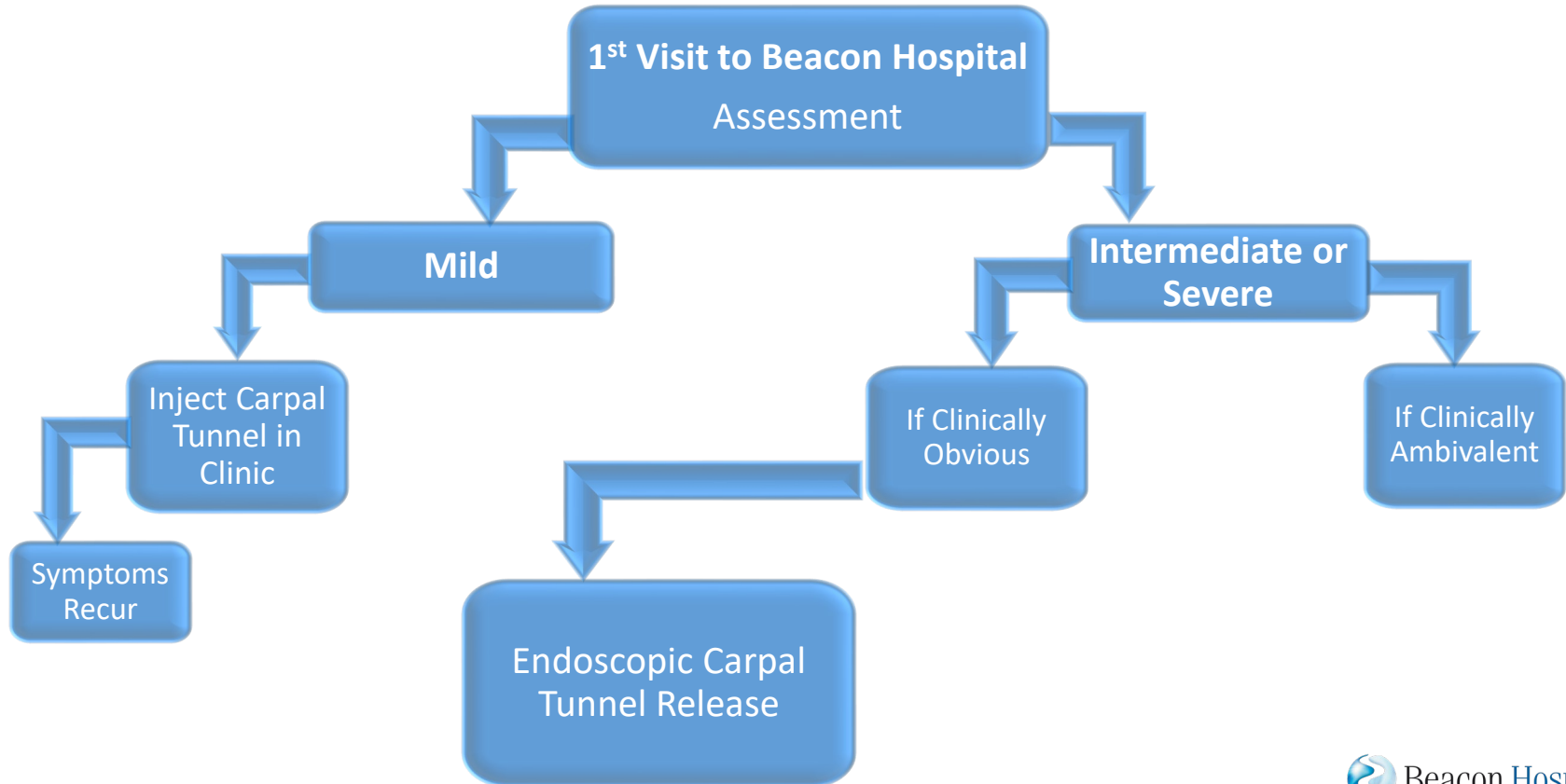


# Carpal Tunnel Syndrome



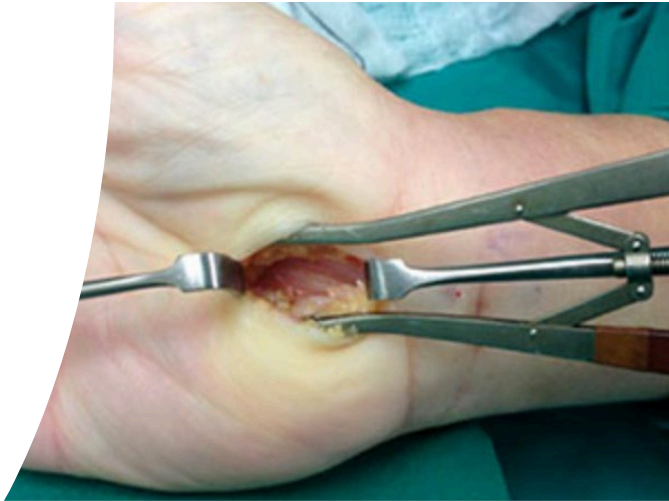


# Carpal Tunnel Syndrome Management



- Steroid injection is less likely to be effective in those with severe symptoms, older patients, diabetics and those with symptoms lasting for over 1 year (Burke, 2005)
- “There is no evidence for giving more than one injection”

# Endoscopic Verses Open



# ECTR Technique



# Typical Scars



# Advantages of ECTR over OCTR

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Scar pain



Grip strength



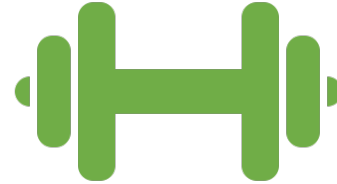
Return to work

# Similarities

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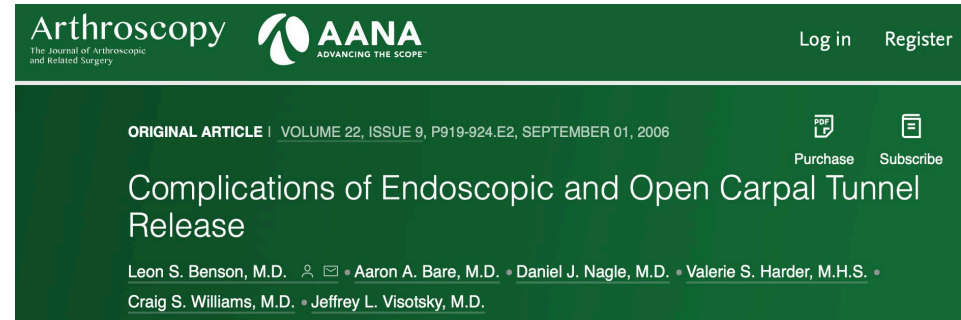
Equally effective in terms of symptom relief for median nerve compression symptoms.



Grip strength is equal after first six months

# Complications of ECTR and OCTR

- 80 publications
- 22,327 cases of endoscopic carpal tunnel release (ECTR)
- 5,669 cases of open carpal tunnel release (OCTR)
- Compared incidence of structural damage to nerves, arteries, or tendons.
- Incidence for endoscopic carpal tunnel release is **0.19%**
- Incidence for open carpal tunnel release is **0.49%**





# ECTR – Take Home Points

- Scar less tender
- Faster return to work  
(Two weeks on average)
- Performed under LA
- Safe as open CTR



Prognosis dependent on severity of symptoms



Best to operate before sensory deficit is continuous



Injections can affect permanent relief in 30% of mild cases but these patients are usually under 40 years.

## TENDINOPATHIES

- 30% of MSK presentations to primary healthcare physicians are tendinopathies.
- Some people are prone to multiple tendinopathies and capsulitis pathologies because of genetic predisposition – Mesenchymal Syndrome.
- It could pave the way for prophylactic physiotherapy and occupational therapy advice and treatments.

# Beacon Orthopaedics Tendinopathy service

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- Rapid access – will be seen within 21 days of referral
- Majority will need only two clinic visits
- Surgery for tendinopathies
  - Shoulder <10%
  - Elbow ~ 15%
  - Hand ~ 50%

# Thank you

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