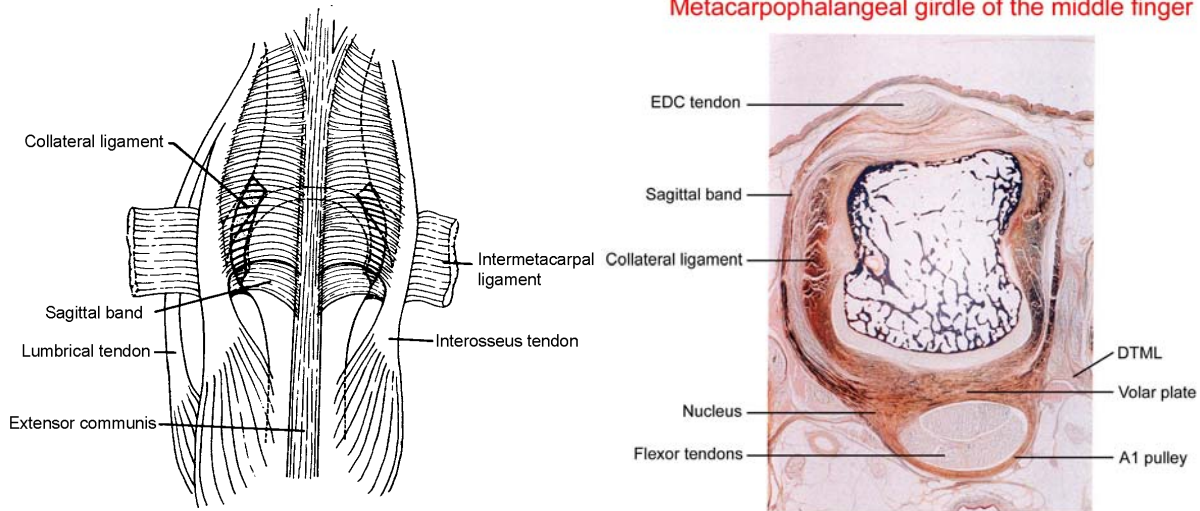


EXTENSOR TENDON SUBLUXATION

Anatomy

ERS

Extensor retinacular system forms a hollow tunnel consisting of the sagittal bands (SB) that together with the palmar plate surround the MCPJ as a "girdle", and two triangular laminae



Overview

Tendons

EDC/EIP/EDM
Lumbrical
Interosseous

Retinacular system

Sagittal band
Retinacular ligaments
Triangular ligament

Stabilisation

Sagittal bands
Juncturae tendinum

Sagittal bands

The origin of the SB blends with the palmar plate, flexor sheath, proximal annular pulley and deep transverse metacarpal ligaments. The SB fibres run dorsally where they envelop the extensor tendon(s) forming thick deep and thin superficial layers. The radial side of the SB are thinner than the ulnar and bifurcate to envelop the superficial interosseous tendons

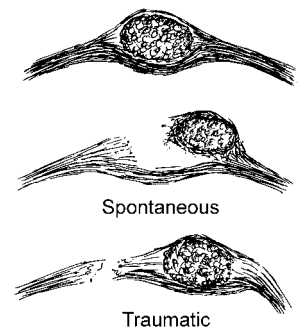
Instability

Cause

Congenital
Degenerative (Senile)
Inflammatory (Arthropathy)
Traumatic

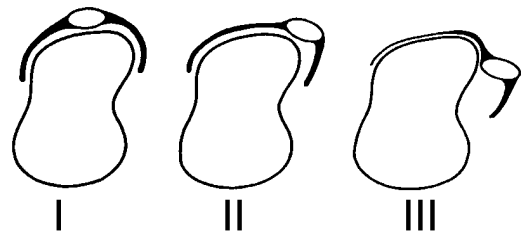
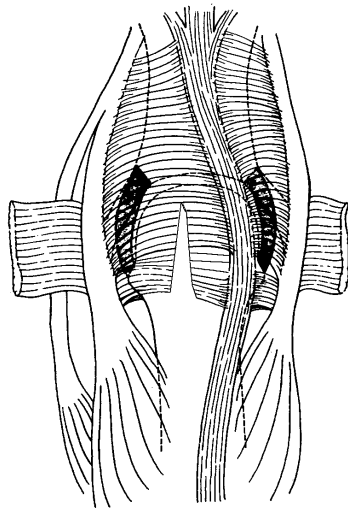
Traumatic

Direct blow to MCPJ
Forcible flexion
Resisted extension (flicking)



EXTENSOR TENDON SUBLUXATION

Fingers affected	Single	Index	14%
		Middle	48%
		Ring	7%
		Little	31%
	Multiple		
Laterality	Radial:Ulnar = 9:1		
Traumatic	I	Mild. Hood contusion, no subluxation	
	II	Moderate. Hood tear, subluxation with MC head contact	
	III	Severe. Hood tear, dislocation into intermetacarpal gully	



Symptoms

- Soreness
- Tendon snapping
- Ulnar deviation
- Loss of extension
- Pseudo-triggering

Differential MCPJ collateral ligament injury

Treatment

Timing

- Acute (<3weeks)
- Chronic

Choices

Acute traumatic	} Operative	Conservative
Chronic		
Spontaneous		
Congenital		



Acute

- I Buddy strapping 3 weeks
- II/III Palmar splint with MC in neutral 3 weeks
- Protected motion for 3 weeks
- Buddy splinting for 3 weeks

EXTENSOR TENDON SUBLUXATION

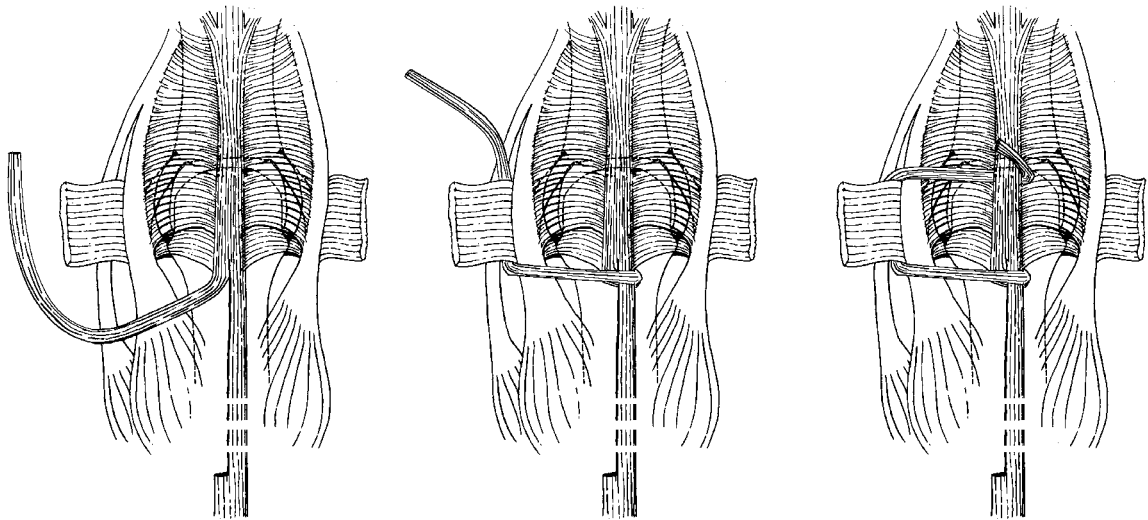
Acute results

Closed injuries managed conservatively (Rayan & Murray 1994)

Type	N	Swelling	Pain	Subluxation	Dislocation
I	9	2	1	0	0
II	3	1	1	1	0
III	6	0	0	2	1

Chronic

Sagittal band repair/reefing (Kettlekamp)
 Junctural reinforcement (Wheeldon)
 Fascial strips
 Free tendon graft
 Tendon transfer (Collateral ligament, Kilgore)
 Tendon transfer (DTML, Watson)



Tendon transfer

RA/GA
 Longitudinal incision
 Distally based EDC tendon strip 1/3 width on same side of tear
 ± Looped around EDC to prevent migration of slit
 Looped under deep intermetacarpal ligament*
 Woven back into extensor hood/remaining EDC tendon
 Tensioned and sutured
 Rehab as for conservative management

Caveat*

Technique not applicable to the index finger where the transfer can be looped around the collateral ligament instead.

Results

Retrograde EDC transfer deep to DTML (Watson & Weinzweig 1997)
 N=16, full correction, FROM, no complications

EXTENSOR TENDON SUBLUXATION

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