

### Thumb OA\*

#### GREEN

- **Intro:**
  - Degenerative condition of the thumb
  - Second most common site of degenerative disease in the hand after DIP
- **Aetiology (risk factors):**
  - >40 yrs
  - F>M (6:1)
  - **Risk factors:** FHx, occupation w/ high load on hands, obesity, PMHx of joint injury, menopause
- **Pathophysiology:**
  - Correlation between basal joint laxity & MCP OA
- **Clinical presentation:**
  - Px at the MC joint
  - **Aggravated:** opening of a lid, turning door knob / car key
- **Physical examination:**
  - Resisted pinch
  - Palpation
  - Swelling
  - Crepitus
- **Management:**
  - NSAIDs
  - Activity modification
  - SMT / STW
  - Mobs
  - Support brace
  - Surgery
- **Ddx:**
  - Ganglion
  - Tendinopathy of flexor carpi radialis
  - Carpal fracture
  - UCL sprain
  - Quervain's tenosynovitis
  - Carpal tunnel syndrome
  - Trigger thumb
  - RA

[link text](#)

### Anterior interosseous n. syndrome

#### GREEN

- **Intro:**
  - Lesion of the motor branch of the median nerve
  - Forearm px & weakness in index & thumb pincer movement
- **Aetiology (risk factors):**
  - Very rare
  - Causes: spontaneous or traumatic
  - Pronator teres muscle most common
  - Associated w/ RA & gout



### Anterior interosseous n. syndrome (cont)

- **Pathophysiology:**
  - Occurs due to 1° entrapment, direct trauma, or viral neuritis
  - Proximal lesions like *brachial plexus neuritis* can cause similar syndromes
  - Suspicion for pts w/ motor loss after related Ssx like intense shoulder px or recent viral illness/exposure
- **Clinical presentation:**
  - No sensory deficits
  - No radiation
  - No numbness
  - **1° complaint:** poorly localised px in forearm in cubital fossa
- **Physical examination:**
  - Pinch sign
  - Decreased strength of flexor pollicis longus & flexor digitorum profundus
- **Management:**
  - Prognosis is usually good and doesn't need surgery
  - Rest
  - Observation
  - Splinting of the elbow at 90° of FX
  - Improves usually in 6-12 weeks
  - NSAIDs
  - SMT / STW
  - Surgery
- **Ddx:**
  - Stenosing tenosynovitis
  - Flexor tendon adherence or adhesion
  - Flexor tendon rupture
  - Brachial neuritis

[link text](#)

### Carpal tunnel syndrome (CTS)\*

#### GREEN

- **Intro:**
  - Entrapment neuropathy caused by compression the median nerve in the carpal tunnel
- **Aetiology**
  - Typically in 40 - 60 yrs
- (**risk factors**):
  - 1-5% in general population
  - F>M (3:1)
  - **Risk factors:** carpal tunnel modifications, fluid imbalance, neuropathic factors
  - Examples: carpal dislocation/subluxation, radius #, arthritis, cysts/tumours, pregnancy/menopause, obesity/kidney failure/hypothyroidism, oral contraceptives/heart failure/diabetes/alcoholism, vitamin deficiency/toxicity



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### Carpal tunnel syndrome (CTS)\* (cont)

- **Pathophysiology:**
  - Caused by various factors
  - Involves compression & traction affecting the **median n.**
  - Compression leads to increased pressure, obstruction of venous outflow, localised edema, & impaired microcirculation of the median n.
  - Lesions on the myelin sheath & axon cause inflammation & loss of normal physiological functions of surrounding tissues
  - Worsening structural integrity of the nerve exacerbates the dysfunctional environment
  - Repeated traction & wrist movements further injure the nerve
  - Inflammation of any of the 9 flexor tendons passing through the carpal tunnel can compress the median nerve
  - Sensory fibres are often affected before motor fibres, & autonomic nerve fibres may also be affected
- **Clinical presentation:**
  - Numbness, tingling, & px in the thumb, 2nd, & radial portions of the 4th digits
  - Ssx worsen at night
  - Variability in Ssx distribution from wrist to shoulder
  - Initially intermittent, worsen w/ activities like driving, reading, painting
  - Nighttime exacerbation, relieved by shacking hand/wrist
  - Leads to permanent sensory loss, muscle weakness, & clumsiness
  - Challenges in tasks like opening doorknobs & buttoning clothes
  - Dominant hand usually affected first
- **Physical examination:**
  - Sensory loss or weakness in median n. distribution
  - Thenar eminence spared in sensory loss
  - Diminished thumb ABD & opposition strength, thenar eminence atrophy
  - Tinel's sign
  - Carpal tunnel compression test
  - Phalen's test
  - Median n. tension test
  - Motor & sensory testing



### Carpal tunnel syndrome (CTS)\* (cont)

- **Management:**
  - 70-90% of mild to moderate cases respond to conservative care
  - Some degree of recurrence, even after surgery
  - Pts w/ CTS 2° to diabetes or wrist # have less favourable prognosis
  - SMT / STW
  - Nerve release
  - Support brace at night
  - Taping
- **Ddx:**
  - Brachial plexopathy
  - Cx myofascial px
  - Cx spondylosis
  - Compartment syndrome
  - Ischemic stroke
  - Mononeuritis multiplex
  - Multiple sclerosis
  - Median neuropathy in the forearm
  - Motor neuron disease
  - Diabetic neuropathy
  - Cx radiculopathy
  - Overuse injury
  - Traumatic brachial plexopathy
  - Neuropathies
  - Tendonitis
  - Tenosynovitis
  - TOS

link text

### DeQuervain's tenosynovitis

#### GREEN

- **Intro:** - Involves tendon entrapment in the 1st dorsal compartment of the wrist



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### DeQuervain's tenosynovitis (cont)

- **Aetiology (risk factors):**
  - F>M
  - Peak 40-50 yrs
  - Bilateral common in new mothers or child care providers
  - Spontaneous resolution often occurs once lifting of the child is less frequent
  - Pregnancy & manual labour significant risk factor
  - Associated w/ repetitive wrist movements, particularly thumb radial ABD, EXT, & radial deviation
  - Acute injury to the wrist, increased frictional forces, pathogenic causes, inflammatory ailments, & anatomical variations
- **Pathophysiology:**
  - Risk of entrapment in acute trauma or repetitive motion
  - Thickening of tendon sheath in 1st compartment causes stenosing tenosynovitis
  - Fibrocartilage formation in response to increased stress over tendon sheaths, leading to thickening
- **Clinical presentation:**
  - Pts w/ radial-sided wrist px worsened by thumb & wrist motion
  - Associated w/ difficulty opening a jar lid
  - Common in 3rd trimester pregnant women or breastfeeding mothers
- **Physical examination:**
  - Tenderness over radial styloid usually present
  - Swelling over wrist typically seen proximal to radial styloid
  - Finkelstein test
  - Eichhoff test
  - WHAT test
- **Management:**
  - Prognosis is good w/ proper care
- **Ddx:**
  - Thumb OA
  - Scaphoid fracture
  - Radial styloid fracture
  - Sensory branch of radial nerve neuritis (Wartenberg's syndrome)
  - Intersection syndrome
  - Trigger thumb

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### Diabetic neuropathy\*

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- **Intro:**
  - Umbrella term for all non-inflammatory disorders of the peripheral nerve system/neuropathy that occur as a late complication of diabetes & include diabetic mononeuropathy, diabetic polyneuropathy & diabetic autonomic neuropathy
- **Aetiology (risk factors):**
  - 50% of pts w/ DM
  - Incidence higher in pts w/ DM2
  - **Risk factors:** smoking alcohol, poor control/compliance regarding blood sugar, hypertension
- **Pathophysiology:**
  - Exact cause unknown - metabolic, neurovascular, autoimmune causes
  - Hyperglycaemia damage blood vessels → compromise oxygen & nutrients to nerves
  - Risk factors contribute
- **Clinical presentation:**
  - Burning, numbness, or tingling worsen at night
  - Often presents as a "stocking-glove distribution" over several years
  - Proprioceptive & sensory changes resulting in motor changes
- **Physical examination:**
  - Trophic changes, motor Ssx, autonomic Ssx
  - Px & cramps
  - Foot problems, reoccurring amputations
  - Radial n. test
  - Kemps test
  - Tinel's sign
  - Dellon sign
- **Management:**
  - Worse prognosis w/ bad control of DM
  - TENS, low intensity laser therapy
  - Radial n. floss
  - STW
  - Support brace
  - Exercises
- **Ddx:**
  - Alcohol-associated neuropathy
  - Nutritional linked neuropathy
  - Uremic neuropathy
  - Vasculitic linked neuropathy
  - Vitamin B-12 deficiency
  - Toxic metal neuropathy

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### Dupuytren's contracture

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- **Intro:**
  - Genetic disorder
  - 1° affects the palmar & digital fascia of the hand
  - Leads to contracture deformities, particularly the 4th & 5th digit
  - Predominantly in whites & often bilateral
- **Aetiology (risk factors):**
  - Most common in Northern European/Scandinavian descent
  - M>F (2:1), w/ more severe impact
  - Younger age of onset associated w/ increased severity
  - Multifactorial etiology
  - **Associated w/:** diabetes, seizure disorders, smoking, alcoholism, HIV, vascular disease
  - **NOT** associated w/ occupation or activities
  - Ectopic manifestations: *\*Ledderhose disease* (plantar fascia) 10-30%, *Peyronie disease* (dartos fascia of the penis) 2-8%, *Garrod disease* (dorsal knuckle pads) 40-50%
- **Pathophysiology:**
  - Disease starts w/ painless nodules forming along lines of tension in the palm
  - These nodules progress into cords that cause contracture deformities in hand tissues
  - Progresses through proliferative, involution, & residual phases
- **Staging:**
  - Starts as a palpable nodule in the palm
  - Nodules enlarge into cords
  - Early stage: palpable cords along the palm
  - Progression: cords thicken & shorten, causing fixed FX contractures of fingers at MCP & PIP joints
- **Clinical presentation:**
  - Loss of ROM of the hand
  - Palpable cords in the palm extending into affected digits
  - Pathogenic signs: nodules, cords, & finger contractures
  - Rarely associated w/ px
  - Affected digits: 4th digit most commonly affected, followed by the 5th digit, B cases may not exhibit symmetrical severity
  - Px & tenderness: palpation of nodules usually painless unless ulnar n. is compressed, nodules may become tender in presence of tenosynovitis



### Dupuytren's contracture (cont)

- **Physical examination:**
  - Hueston's tabletop test
  - Observation: blanching of skin when finger EXT, pits & grooves may be present, knuckle pads over the PIP may be tender
  - Decreased ROM
  - If plantar fascia involved, indicates more severe disease (*Ledderhose disease*)
- **Management:**
  - US, heat therapy, brace/splint, ROM exercise
  - Needle aponeurotomy, corticosteroid injections
  - Medications
  - Surgery
- **Ddx:**
  - Stenosing flexor tenosynovitis
  - Callus
  - Epithelioid sarcoma
  - Ganglion
  - Giant cell tumour
  - Trigger finger
  - Ulnar nerve palsy
  - DJD of hand
  - Post trauma
  - Infection
  - Volkmann's contracture
  - Diabetic cheiroarthropathy

[link text](#)

### Gamekeeper's / skier's thumb

#### YELLOW

- **Intro:**
  - Partial or complete rupture of the ulnar collateral ligament
  - It can either be acute or chronic injury
  - Results from recurrent thumb hyperEXT, leading to degeneration & tears of the UCL
- **Aetiology (risk factors):**
  - 86% of injuries to the base of the thumb
  - 2nd most common ski-related injury, common in other sports using stick or ball
  - Can occur due to mechanisms like falls or strikes that forcefully ABD the thumb
- **Pathophysiology:**
  - UCL tear at the distal attachment of the proximal phalange → can lead to avulsion of the bone fragment
  - **Chronic:** repetitive valgus stress
  - **Acute:** hyperABD trauma





### Gamekeeper's / skier's thumb (cont)

- **Clinical presentation:**
  - Acute presentation post-injury or delayed presentation for chronic injuries
  - Discomfort localised to 1st MCP joint area
  - Swelling near or at the thumb base
  - Hx of falls or trauma, causing extreme thumb ABD or hyperEXT
- **Ssx:**
  - Px, occasionally weakness
  - Difficulty holding onto objects, especially w/ pincer grasp
- **Physical examination:**
  - Decreased ROM
  - Valgus stress test +ve (increased laxity in partial tears; lack of endpoint indicates complete tear w/ total instability)
- **Management:**
  - Tend to heal well but long period of immobilisation
  - Wait at least 6 weeks before returning to work or sport
  - RICE
  - Immobilisation
  - If bony injury refer to A&E
  - If significant laxity also refer for surgery
- **Ddx:**
  - Tendinous injuries (e.g. ADD pollicis disruption)
  - Thumb dislocation
  - Bennett fractures
  - Stener lesion
  - RA
  - OA

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### Ganglion

#### GREEN

- **Intro:**
  - Benign soft tissue tumours most commonly encountered in the wrist & hand, but may occur in any joint
  - Majority asymptomatic, but can cause px, tenderness, weakness, & cosmetic concerns
- **Aetiology (risk factors):**
  - F>M (3:1)
  - Common in women 20-50 yrs
  - 60-70% of hand & wrist soft-tissue masses
  - Associated w/ gymnasts - likely due to repetitive trauma & stress on wrist joint



### Ganglion (cont)

- **Pathophysiology:**
  - Synovial cysts filled w/ connective tissue
  - Can be filled w/ fluid from tendon sheath or joint
  - 70% on the dorsal aspect, originating from the scapholunate ligament / articulation
  - 20% on the volar aspect, originating from the radioiocarpal / scaphotrapezial joint
  - 10% from various areas of the body
  - Commonly found in women aged 40-70 w/ OA
- **Clinical presentation:**
  - Majority are asymptomatic
  - Ssx may inc. px, tenderness, or weakness exacerbated by wrist motion
  - Aching of wrist, might radiate into arm
- **Physical examination:**
  - Px on palpation
  - Possible decreased ROM, grip strength
  - Solar wrist ganglion cysts may lead to carpal tunnel s. or trigger finger due to compression of **median n.** or intrusion on flexor tendon sheath
  - They can also cause **ulnar n.** neuropraxia & compression of **radial artery**, resulting in ischemia
- **Management:**
  - Asymptomatic pts may regress spontaneously
  - Surgery is an option for persistent Ssx
  - Recurrence is the most common complication of surgery
- **Ddx:**
  - Aneurysmal bone cyst
  - Chondroblastoma
  - Chondromyxoid fibroma
  - Enchondroma
  - Giant cell tumour
  - Non-ossifying fibroma
  - Osteoid osteoma
  - Osteoblastoma
  - Simple bone cyst

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### Guyon's canal syndrome\*

#### GREEN

- **Intro:**
  - Relatively rare peripheral ulnar neuropathy
  - Involves injury to the distal portion of the ulnar n. as it travels through a narrow anatomic corridor at the wrist



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### Guyon's canal syndrome\* (cont)

- **Aetiology (risk factors):**
  - Distal ulnar n. injury can occur from various causes inc. compression, inflammation, trauma, or vascular issues

**Etiologies include:**

  - Ganglion cyst
  - Fracture or displacement of the hook of hamate
  - Tumours (e.g. lipoma)
  - Repetitive trauma (e.g. cyclist's handlebars)
  - Aberrant muscle or excess fat tissue within the canal
  - Ulnar artery thrombosis or aneurysm (e.g. HHS)
- **Pathophysiology:**
  - Compression, inflammation, trauma or vascular insufficiency
  - Most commonly due to ganglion cyst or repetitive trauma
  - **4 borders of Guyana canal:** volar carpal ligament, transverse carpal ligament, hamatum, pisiform
  - **Inside:** ulnar nerve + artery
  - Mixed sensory, motor nerve
- **Clinical presentation:**
  - Hx of repetitive trauma / direct trauma
  - Ssx/Sx can be motor, sensory, or mixed
  - **Motor complaints:** weakness/paralysis of intrinsic muscles, weakening grip, clawing of 4th/5th digits
  - Hypothenar atrophy in advanced cases

**Differentiation between Guyon canal vs. cubical tunnel compression:**

  - Sparing of dorsal ulnar dermatome indicates *Guyon canal* involvement
- **Physical examination:**
  - Tinel sign +ve
  - Paper gripping test shows weakness of ADD pollicis muscle
  - Froment sign: thumb IP joint hyperFX due to ADD inability
  - Wartneberg sign: 5th digit over-ABD at rest
  - Allen test: arterial supply evaluation
- **Management:**
  - Ssx duration: acute, subacute, chronic
  - Conservative vs. operative: depends on duration, severity of Ssx & etiology
  - Splinting: avoidance of aggravating factors (1-12 weeks)
  - US & nerve grinding exercises



### Guyon's canal syndrome\* (cont)

- **Ddx:**
  - Alcoholic neuropathy
  - ALS
  - Brachial plexus abnormalities
  - Cx radiculopathy
  - Epicondylitis
  - Pancoast tumour
  - TOS

[link text](#)

### Intersection syndrome

#### GREEN

- **Intro:**
  - Inflammatory tenosynovitis at the intersection of the 1st dorsal compartment (APL, EPB) & 2nd dorsal compartment (ECRL, ECRB) of the wrist
  - Often caused by overuse
- **Aetiology (risk factors):**
  - F=M
  - **Associated w/:** rowing, canoeing, skiing, racquet sports, & horseback riding
  - Results from repetitive EXT & FX
- **Pathophysiology:**
  - Repetitive EXT-FX causes friction injury at the crossover junction of 1st dorsal compartment (APL, EPB) & 2nd dorsal compartment (ECRB/ECRL) tendons
  - Leads to inflammatory response & tenosynovitis
- **Clinical presentation:**
  - Px or tenderness over dorsal aspect of wrist proximal to radial styloid
- **Physical examination:**
  - Swelling, palpable crepitus w/ wrist or thumb EXT
  - Pronation more uncomfortable than supination
  - Swelling around Lister's tubercle
  - Intersection syndrome test +ve
  - Cozen's test +ve
  - Resisted thumb EXT +ve
  - Finkelstein's test +ve
- **Management:**
  - RICE
  - Splinting
  - Steroid injections
  - NSAIDs
- **Ddx:**
  - DeQuervain tenosynovitis
  - Muscle strain
  - Wartenberg's syndrome
  - EPL tendinitis

[link text](#)



### Kienbock's disease

#### GREEN

- **Intro:**
  - Avascular necrosis of the lunate
  - Known as *lunatomalacia*
- **Aetiology (risk factors):**
  - 20-40 yrs
  - M>F
  - Multifactorial etiology
- **Pathophysiology:**
  - Shortened ulna when compared to the radius, increased mechanical stress, repetitive microtrauma
  - Low number of supporting blood vessels
  - Bigger size of lunate
  - Increased radial inclination angle
  - Venous plexus abnormalities leading to an obstructed venous drainage
  - Repetitive compression of the wrist
- **Clinical presentation:**
  - Unilateral px over dorsal aspect of the wrist
  - Limited ROM
  - Weakness
  - Exacerbated: EXT & axial loading
  - Ssx: mild to debilitating
  - Rarely B
  - Trauma is often absent
- **Physical examination:**
  - Swelling, tenderness
  - Synovitis
  - Loss of grip strength
- **Management:**
  - Reduction of compressive load
  - Maintenance, improvement of ROM
  - Stretching
  - Massage to increase blood circulation
- **Ddx:**
  - Ulnar impaction s.
  - Lunate intraosseous ganglion
  - Bone contusion
  - Arthritis
  - Osteoid osteoma
  - Enostosis/bone island

[link text](#)

### Rheumatoid arthritis\*

#### YELLOW



### Rheumatoid arthritis\* (cont)

- **Intro:**
  - Common autoimmune disorder of the joints
  - Characterised by inflammatory arthritis as well as extra-articular involvement
  - Can levelly impair physical function & quality of life
  - Typically B & symmetrical
  - MCPs & PIPs most commonly affected
- **Aetiology (risk factors):**
  - F>M
  - 30-50 yrs (can occur at any age)
  - Northern Europe & North America
  - Multifactorial nature involving genetic (caucasians, FHx) & environmental factors
  - **Risk factors:** females, smoking (strongest), microbiota, Western diet, stress, infections
- **Pathophysiology:**
  - Exact cause unknown
  - Multifactorial
  - **Hypothesis:** results from the interaction between genetic predisposition & environment → autoimmune response
- **Clinical presentation:**
  - Morning stiffness >1h (gelling phenomenon)
  - Involvement of small hand joints affecting ADLs (e.g. opening jars, wringing washcloths)
  - Decreased strength may cause issues (e.g. dropping objects)
  - Pts struggle w/ ADLs (e.g. showering, combing hair, dressing, or using handgrips to unlock doors)
  - **Constitutional Ssx:** fatigue & malaise are common
  - Weight loss & low-grade fevers can accompany onset or flares of RA
  - FHx of inflammatory joint disease or autoimmune collagen vascular disease is present in up to 50% of cases
  - Typical Ssx:**
    - Joint px
    - Joint swelling, notably in the MCPs
    - Decreased strength
    - Limited ROM
    - Stiffness in affected joints, particularly after long periods or rest or sleep



### Rheumatoid arthritis\* (cont)

#### • Physical examination:

##### Synovitis:

- Key clinical finding in RA: palpable synovial hypertrophy
- Joints appear swollen, fusiform/spindle-shaped PIPs
- Decreased ROM
- Grip strength may be reduced
- RA synovitis feels "doughy"
- Erythema & warmth may or may not be present

##### Tenosynovitis:

- Flexor tendon frequently involved, leading to swelling & thickening
- Triggering & locking of fingers possible
- Poor prognosis if flexor tenosynovitis present
- Extensor tendons of wrist commonly involved
- Tenosynovial effusions can compress **median n.**, causing CTS

##### Hand & wrist deformities:

- Boutonniere deformity
- Swan-neck deformity
- Subluxation of MCPs
- Ulnar drift/deviation
- Hitchhiker thumb/Z deformity
- Piano key sign/floating ulnar styloid
- Subluxation of wrist
- Vaughan-Jackson deformity

##### Subcutaneous nodules:

- Seen in seropositive RA (-ve HLA-B27), especially on pressure areas
- Firm, tender, not freely mobile
- Poor prognostic marker if present early in disease

#### • Management:

- **Imaging:** x-ray, MRI, MSK US
- **Labs:** RF, ACPAs, ANA, ANCA
- Presence of RF, anti-CCP indicate RA being seropositive (seronegative RA also occurs)
- Not associated w/ HLA-B27
- Medical treatment
- Improvement of general fitness
- Manual therapy (thermo-therapy, TENS, rest during flare-ups)
- Surgery is rarely needed
- Cx adjustment **contraindicated** due to Atlanta-axial subluxation



### Rheumatoid arthritis\* (cont)

- **Ddx:**
  - Infections
  - OA
  - Seronegative spondyloarthropathies
  - Crystalline arthropathies
  - Other autoimmune connective tissue diseases
  - Others

[link text](#)

### Scapholunate dissociation

#### YELLOW

- **Intro:**
  - Rotatory subluxation of the scaphoid
  - Most frequent pattern of carpal instability & is classified as an acute or chronic & static or dynamic instability
  - Disruption of the ligamentous complex holding the scaphoid & lunate together
  - Refers to abnormal orientation of the scaphoid relative to the lunate
- **Aetiology (risk factors):**
  - Typically after FOOSH, ulnar-deviated hand
  - Atraumatic: infection, inflammatory arthritis, neurological disorders, & certain congenital malformations
  - These conditions disrupt the 1° & 2° ligamentous stabilisers of the scapholunate joint
- **Pathophysiology:**
  - Axial loading in hyperEXT shifts scaphoid proximal pole dorsally
  - High-speed trauma like motorcycle accidents may cause bony avulsions leading to scapholunate dissociation
  - Isolated scapholunate ligament rupture alters wrist biomechanics & kinematics
  - Gradual attenuation of scapholunate joint 2° stabilisers follows ligament rupture
  - Failure of 2° stabilisers leads to apparent radiographic evidence
- **Complications:**
  - Degenerative changes
  - Rotational alterations in the scapholunate joint

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### Scapholunate dissociation (cont)

- **Clinical presentation:**
  - Can be isolated or associated w/ distal radius or carpal bone #
  - Persistent wrist px after FOOSH
  - Decreased grip strength
  - Popping or clicking during activities loading the wrist
  - Exacerbated px w/ wrist EXT & radial deviation
  - Limited ROM due to px
  - **Chronic cases:** wrist ROM normal until degenerative changes occur

Presentation varies w/ **Watson staging:**

**Stage 1:** predynamic

**Stage 2:** dynamic

**Stage 3:** static

**Stage 4:** osteoarthrotic

- **Physical examination:**
  - Tenderness to palpation dorsally over the scapholunate joint
  - Localised swelling in acute cases
  - Watson shift test: +ve w/ palpable clunk & presence of dorsal wrist px

- **Management:**
  - Injury acute if it has occurred within 6 weeks
  - Conservative care (non-displaced & chronic asymptomatic): immobilisation & NSAIDs
  - Surgery normally required to prevent long-term complications

- **Ddx:**
  - Scaphoid fracture
  - Kienbock disease
  - Ganglion cyst
  - Flexor carpi radialis tendinopathy
  - Extensor carpi radialis brevis/longus tendinopathy
  - CIND-DISI

[link text](#)

### Trigger finger / stenosing tenosynovitis

#### GREEN

- **Intro:**
  - Tenosynovitis in the flexor sheaths of the fingers & thumb
  - Result of overuse
  - Causes significant functional impairment



### Trigger finger / stenosing tenosynovitis (cont)

- **Aetiology (risk factors):**
  - 1st peak: young age <8yrs, F=M (mostly thumb)
  - 2nd peak: 40-50yrs F>M (dominant hand)
  - Multifactorial etiology
  - Trauma cause hypertrophy & narrowing of tendon & sheath, leading to catching & locking
  - Adult comorbid diseases associated: diabetes, amyloidosis, CTS, gout, thyroid disease, RA
  - In children: seems developmental, w/ size mismatch between flexor tendon & sheath, often idiopathic but associated w/ conditions like Hurler s., juvenile RA
- **Pathophysiology:**
  - Microtrauma leads to inflammation & injury of the flexor tendon-sheath complex
  - A1 pulley experiences greatest force & commonly affected
  - Inflammation over time causes tendon sticking within its sheath, perceived as locking by the pt
  - Flexor tendon apparatus is stronger than the extensor tendon apparatus
  - Pts can FX fingers w/o difficulty but experience locking during EXT due to inflammation causing tendon catching in the flexor sheath
- **Clinical presentation:**
  - Discomfort or functional limitations in the affected digit
  - Thumb, ring finger most common sites (dominant hand)
  - Swelling or a nodule may be present
  - Complaints of a painful click in the digit
  - Locking of finger during EXT or inability to move it from fixed FX position
  - Ssx may develop gradually or be acute
- **Physical examination:**
  - Tender nodule (due to inflammation) at the distal palmar crease
  - Affected digit may be FX or locked on observation
  - Moving may cause px &/or swelling
- **Management:**
  - Good prognosis w/ treatment, sometimes spontaneous resolution
  - Conservative: splinting (6-10 weeks) & steroid injections
  - Surgery (if conservative care fails or trigger thumb during infancy)



### Trigger finger / stenosing tenosynovitis (cont)

- **Ddx:**
  - Abnormal sesamoid
  - Acromegaly
  - Ganglion cyst
  - Infection within the tendon sheaths
  - Presence of loose body in MCP joint
  - Subluxation of extensor digitorum communis

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