비신경인성 손목 통증

한 범 기

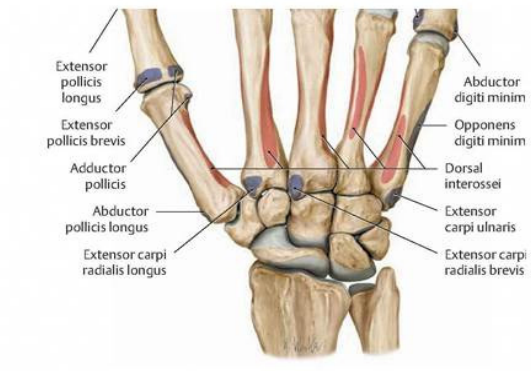
연세신경과의원

강의 내용

- 통증과 관련된 손목의 해부학
- 흔한 손목의 통증 질환


손목의 해부학

손목의 해부학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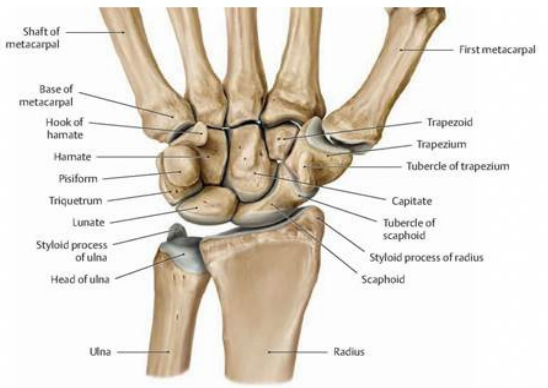
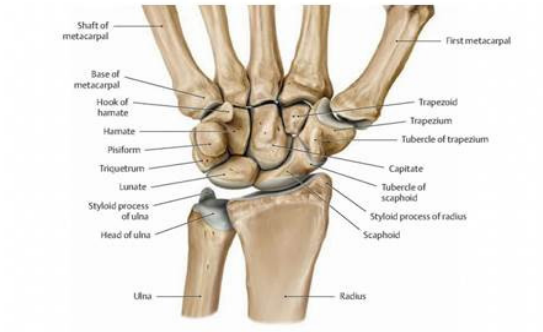
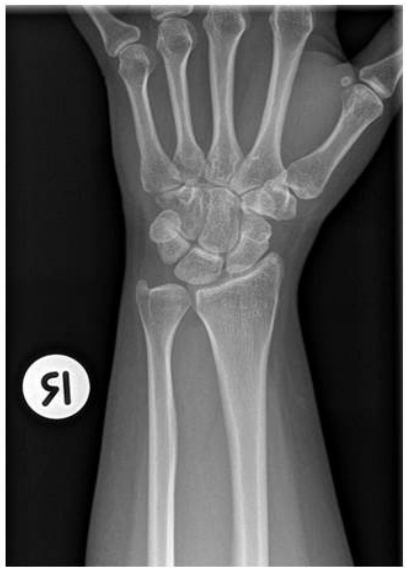
Extensor pollicis brevis
Adductor pollicis
Abductor pollicis longus
Extensor carpi radialis longus
Abductor digiti minim
Opponens digiti minim
Dorsal interossei
Extensor carpi ulnaris
Extensor carpi radialis brevis


Shaft of metacarpal
Base of metacarpal
Hook of hamate
Hamate
Pisiform
Triquetrum
Lunate
Styloid process of ulna
Head of ulna
Ulna
First metacarpal
Trapezoid
Trapezium
Tubercle of trapezium
Capitate
Tubercle of scaphoid
Styloid process of radius
Scaphoid
Radius

손목의 정상 방사선 소견





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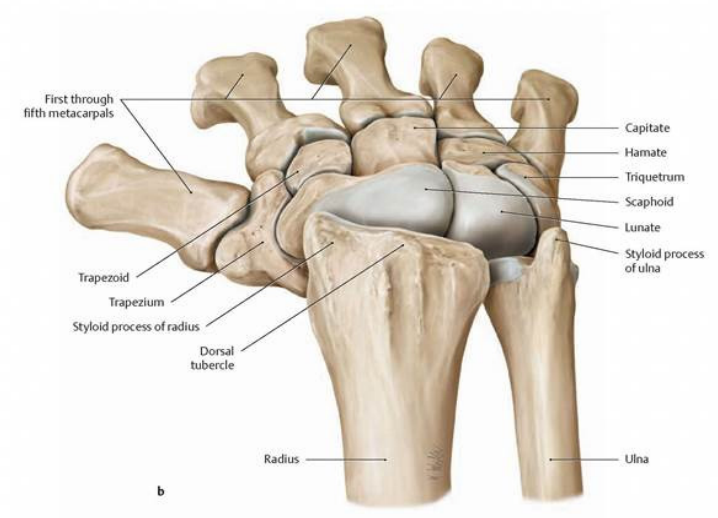

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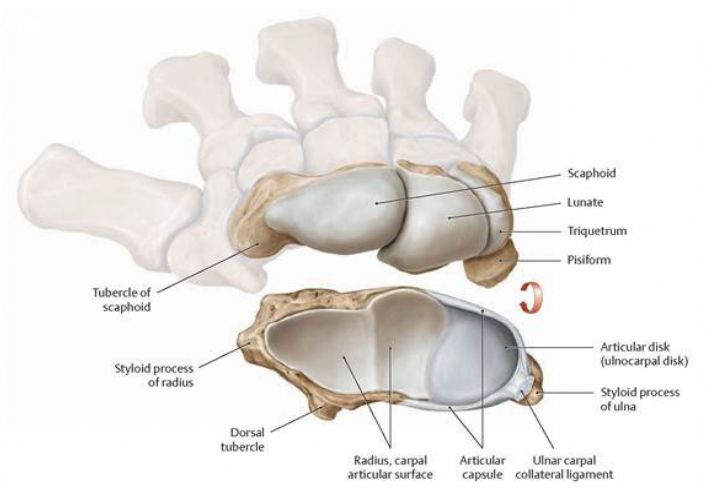

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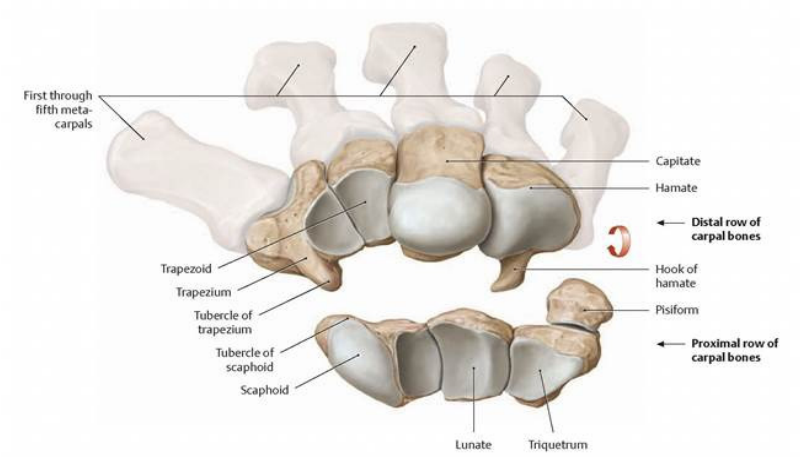

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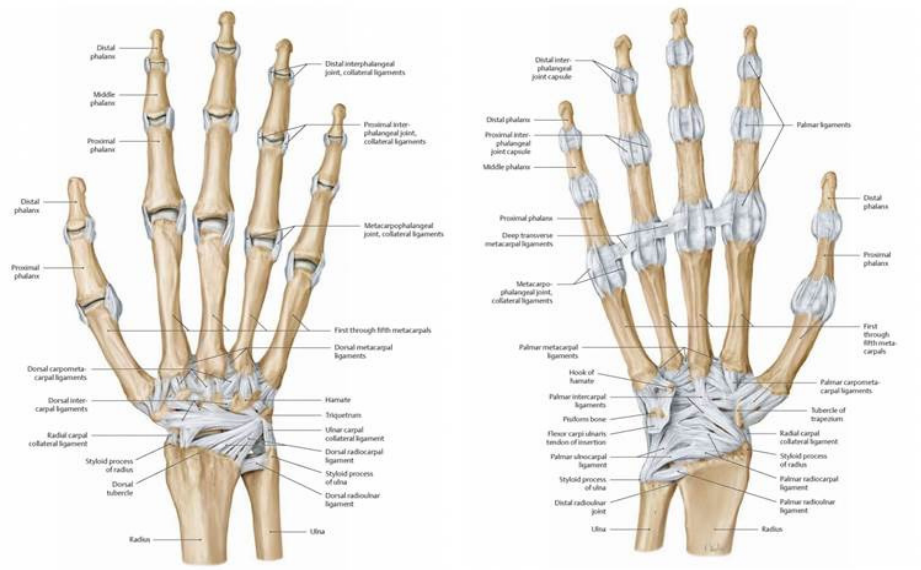

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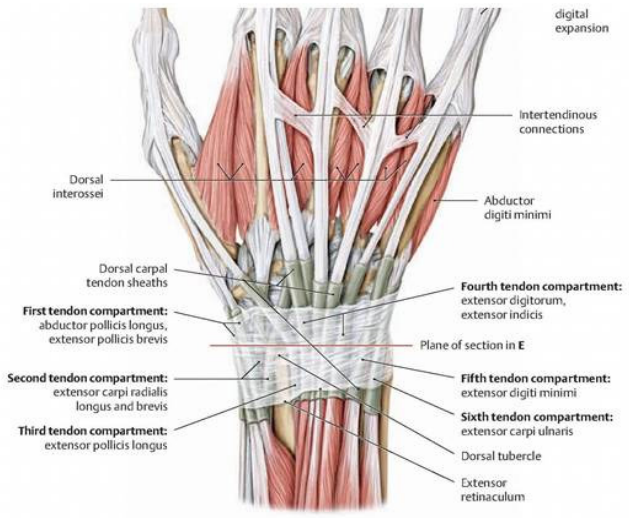

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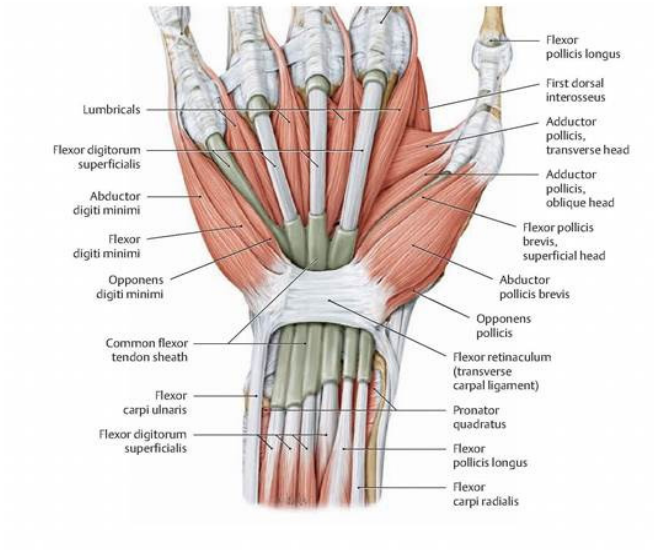

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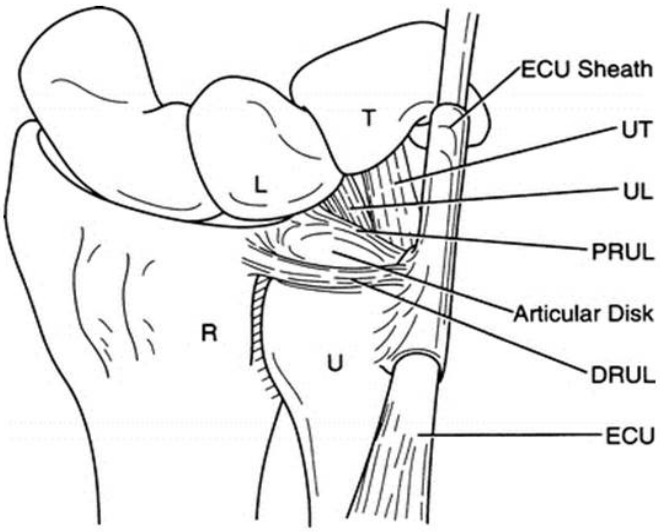
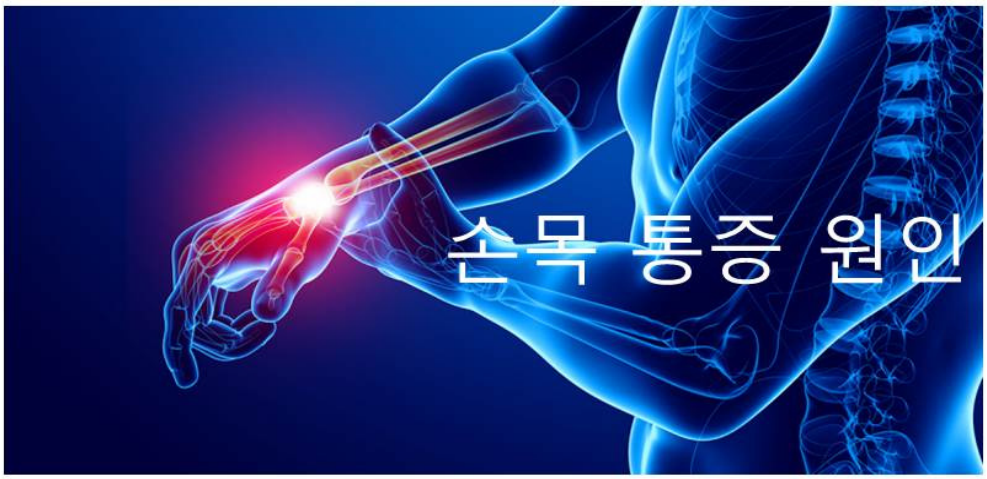




해부학적 구조에 따른 분류

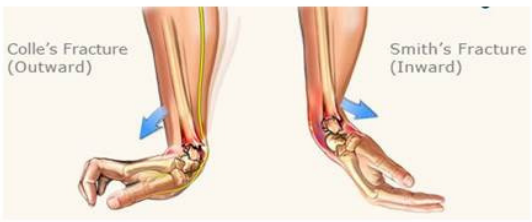
- 골격 - 골절
- 관절 - 관절염
- 인대 - 염좌, 과사용
- 힘줄 - 힘줄염, 석회성 병변
- 건초 - 건초염
- 근육 - 근육통

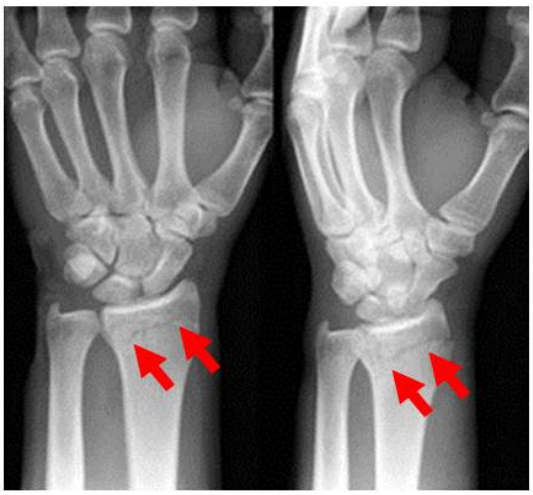
통증 기전에 따른 분류

- 염증 - 활액막염(관절염)
- 과사용 - 건초염
- 외상 - 염좌, 골절

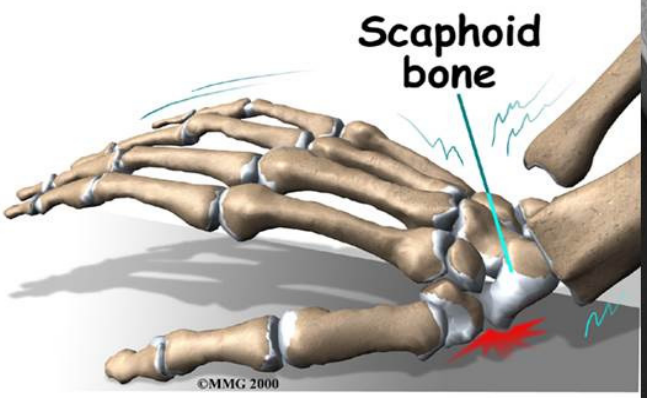
원위부 요골 골절

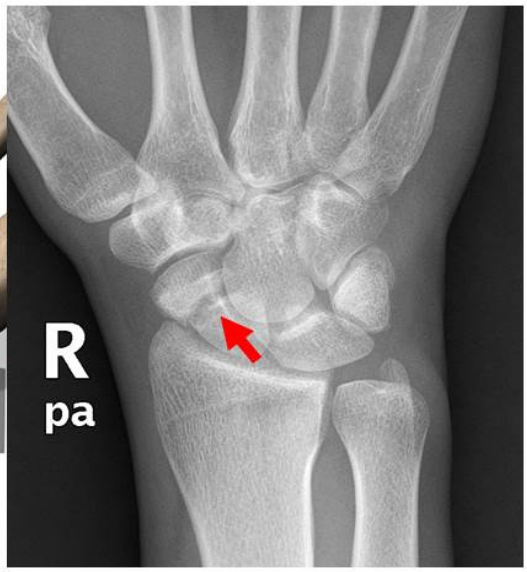
- 수상 병력이 대개 있다
- 심한 국소 압통, 종창





주상골(scaphoid) 골절





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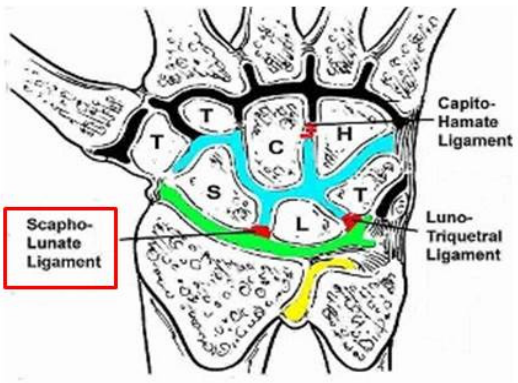

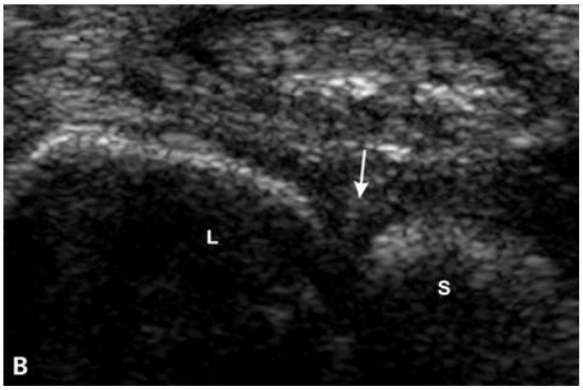

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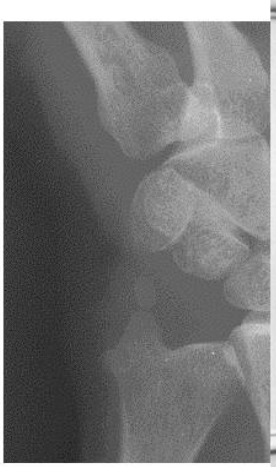
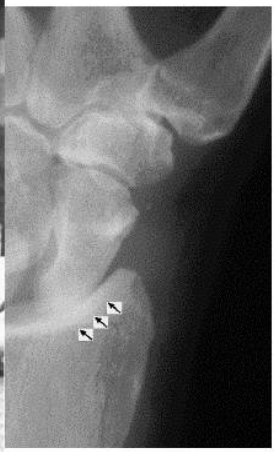
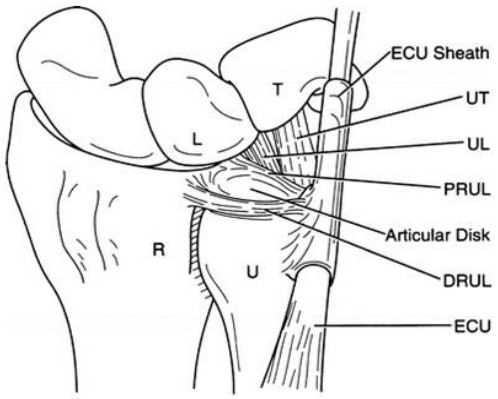


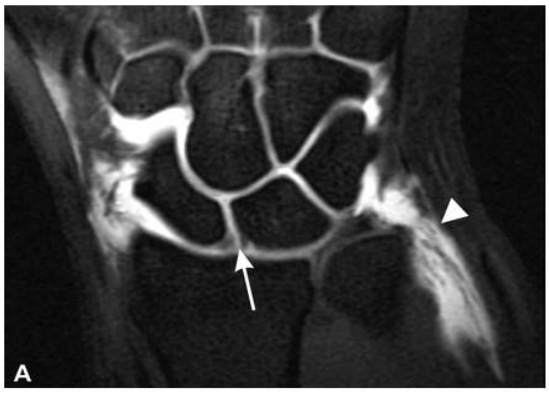


Scapholunate

oint arthritis

외상성 손목 인대 손상



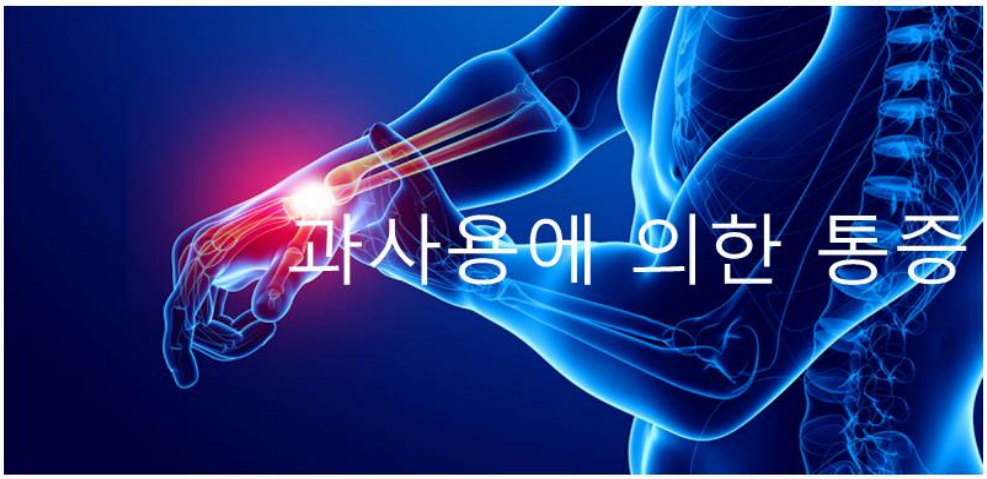


Triangular fibrocartilage complex(TFCC) injury

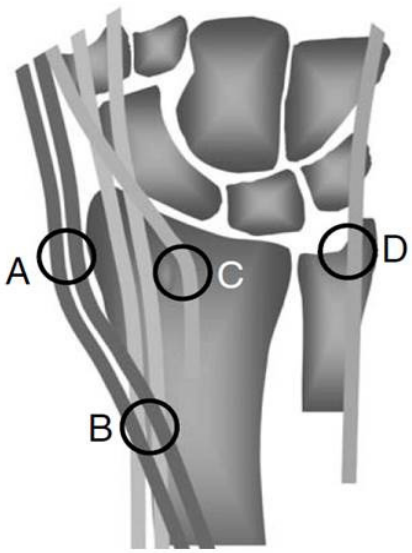
손목의 운동 손상

Table 1 Summary of common wrist injuries in the athlete, diagnosis and management

	Diagnostic keys	Preferred initial management in the athlete
Acute injuries		
Scaphoid fracture	• Persistent tenderness to palpation palmarly or dorsally	• *Non-displaced waist or distal fracture* – cast immobilization or immediate surgical fixation
	• Careful scrutiny of plain radiographs, serial imaging and use of CT or MRI	• *Displaced waist or distal fracture* – immediate surgical fixation
		• *Proximal pole fracture* – immediate surgical fixation
Scapholunate ligament tear	• Dorsal wrist swelling	• Confirmation of suspected diagnosis by MRI
	• Tenderness to palpation 1 cm distal to dorsoradial tubercle	• Early (<6 weeks) direct ligament repair and k-wire fixation
	• SL widening compared with contralateral side on standard or stress radiographs	
TFCC tear (traumatic)	• Point tenderness to palpation in fovea	• *Unstable DRUJ* – immediate surgical repair
	• Pain reproduced by wrist ulnar deviation	• *Stable DRUJ* – immobilization versus early MRI and surgical repair/debridement
	• DRUJ instability when compared with contralateral side	
Hamate fracture	• At-risk sport including baseball, golf, tennis	• *Non-displaced* – cast immobilization versus surgical fragment excision
	• Direct tenderness to palpation palmarly	• *Displaced* – surgical fragment excision
Pisiform fracture	• Direct tenderness to palpation palmarly	• Symptomatic immobilization
ECU subluxation	• Athlete reports: clicking, popping, instability	• Immobilization versus surgical repair or reconstruction
	• Confirmation of instability by physical exam or dynamic ultrasonography	
Chronic and repetitive injuries		
TFCC tear (degenerative)	• Point tenderness to palpation in fovea	• Immobilization, activity modification, ± corticosteroid injection
	• Pain reproduced by wrist ulnar deviation	• MRI if symptoms persist >6 weeks
Hamate nonunion	• At-risk sport including baseball, golf, tennis	• Surgical fragment excision
	• Direct tenderness to palpation palmarly	
ECU tendinitis	• Tenderness to palpation over distal ulnar	• Immobilization, activity modification
	• Pain with resisted wrist extension in ulnar deviation	• ± corticosteroid injection if symptoms persist >6 weeks

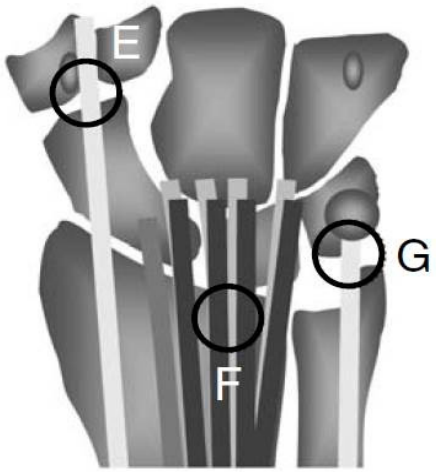


손목의 흔한 과사용 증후군



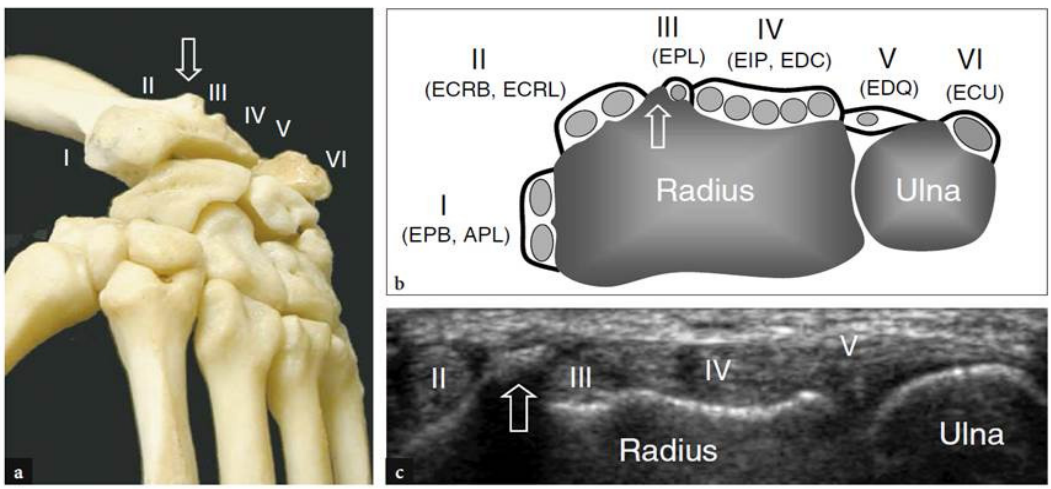
- A : 드꿰르벵 건초염 (de Quervain disease)
- B : 교차증후군(intersection SD)
- C : 장무지신근(EPL) 건초염
- D : 척측수근신근(ECU) 건초염

손목의 흔한 과사용 증후군

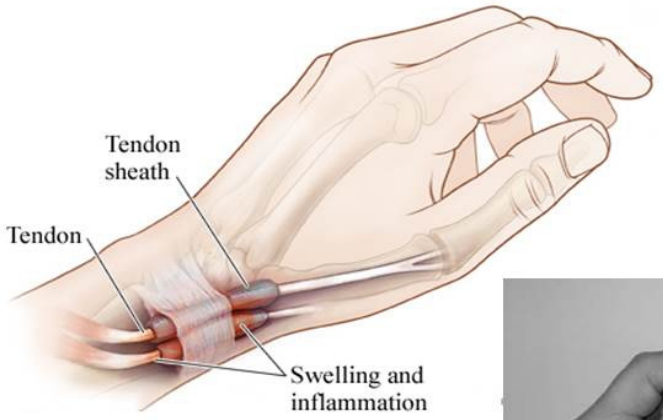


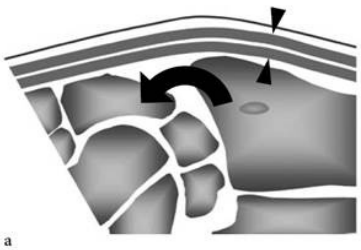
- E : 요측수근굴근(FCR) 건초염
- F : 표재지굴근(FDS) 건초염
- G : 척측수근굴근(FCU) 건초염

손등의 힘줄 구성

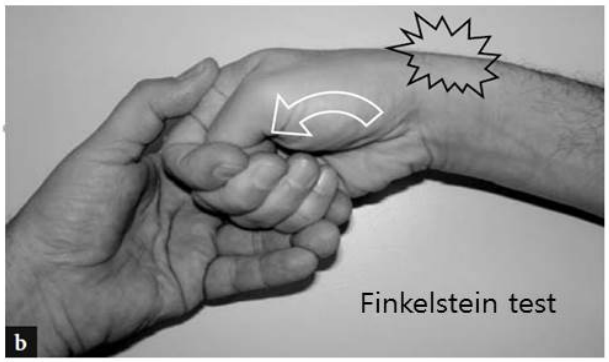


드꿰르벵 건초염
De Quervain disease

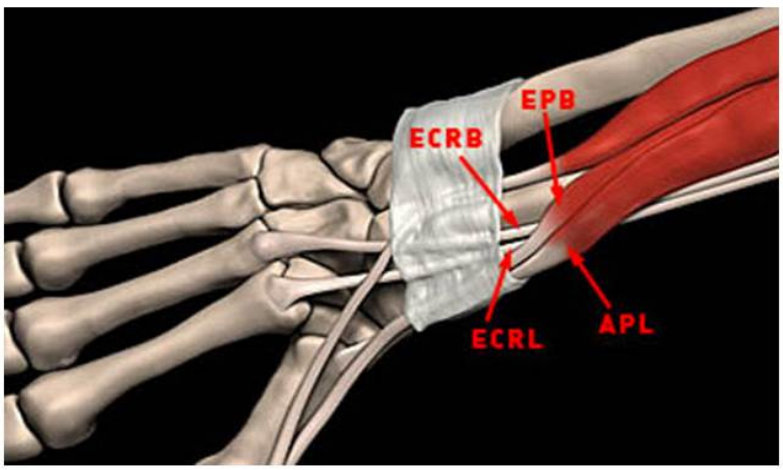




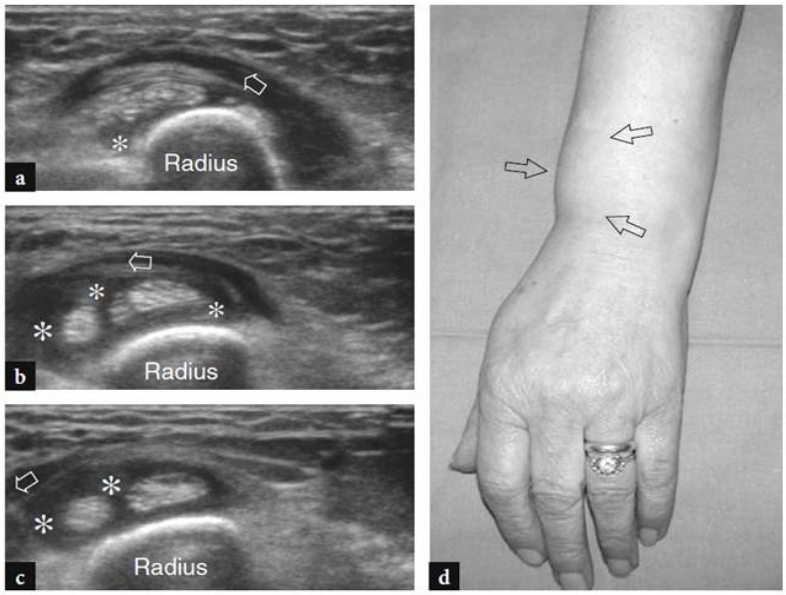
De Quervain disease
Compartment I



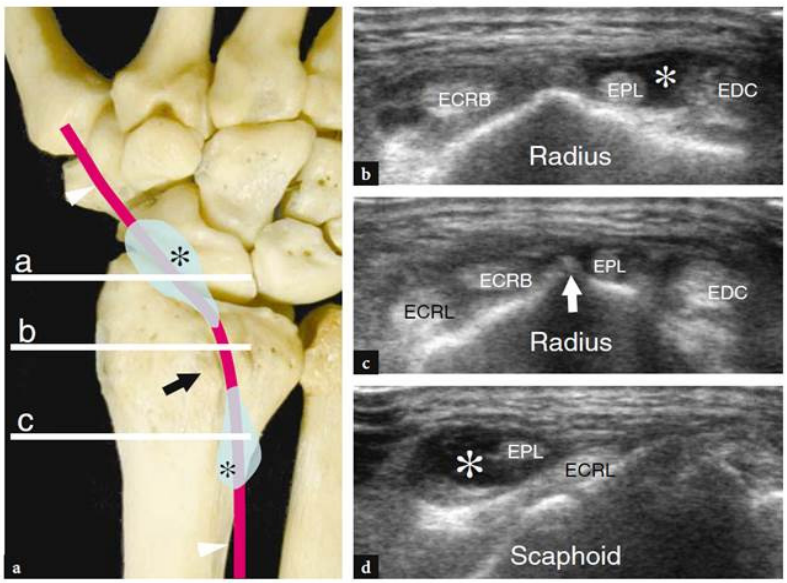
교차증후군(Intersection SD)



교차증후군(Intersection SD)



장무지신근(EPL) 건초염



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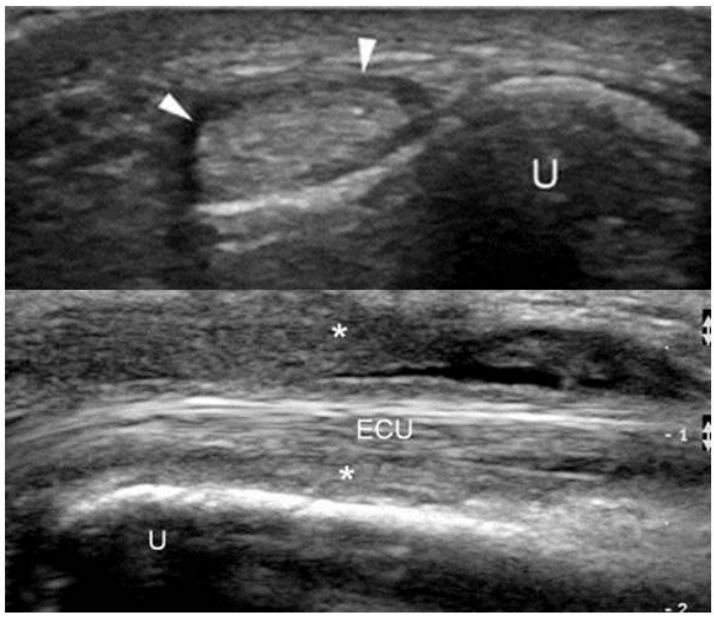
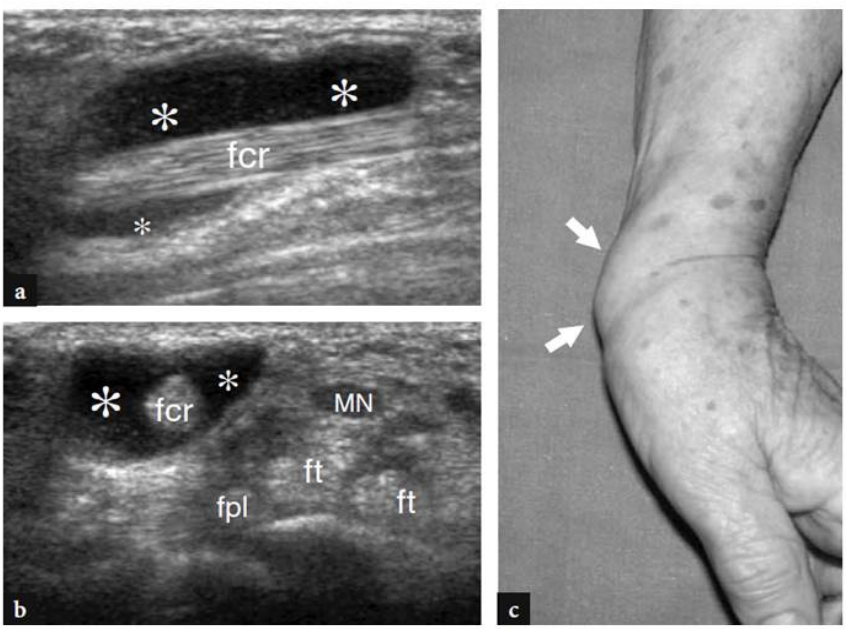
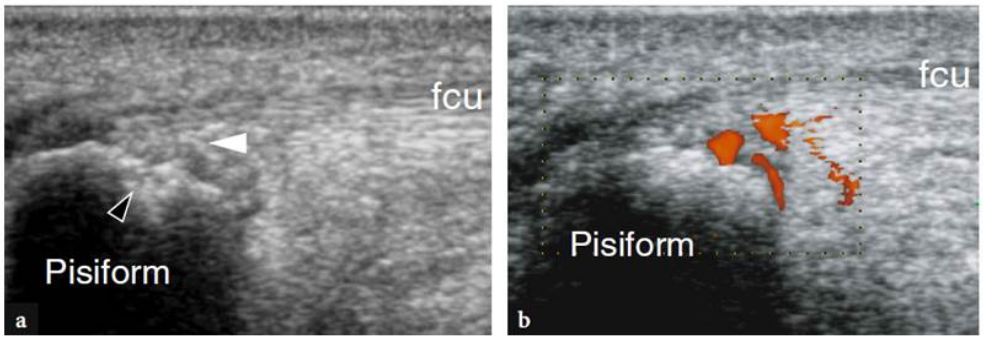


요측수근굴근(FCR) 건초염



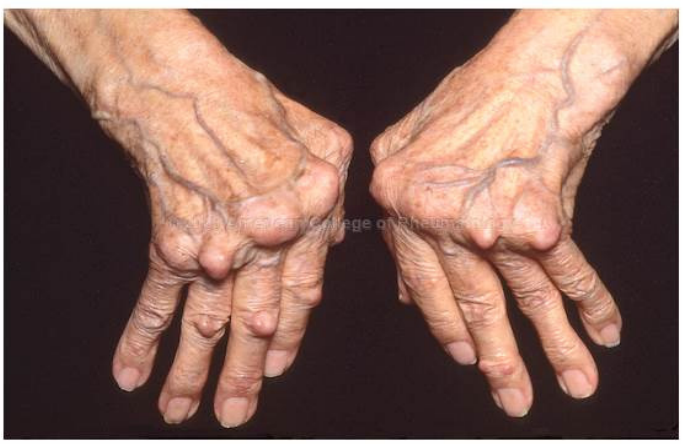
척측수근굴근(FCU) 석회성건염



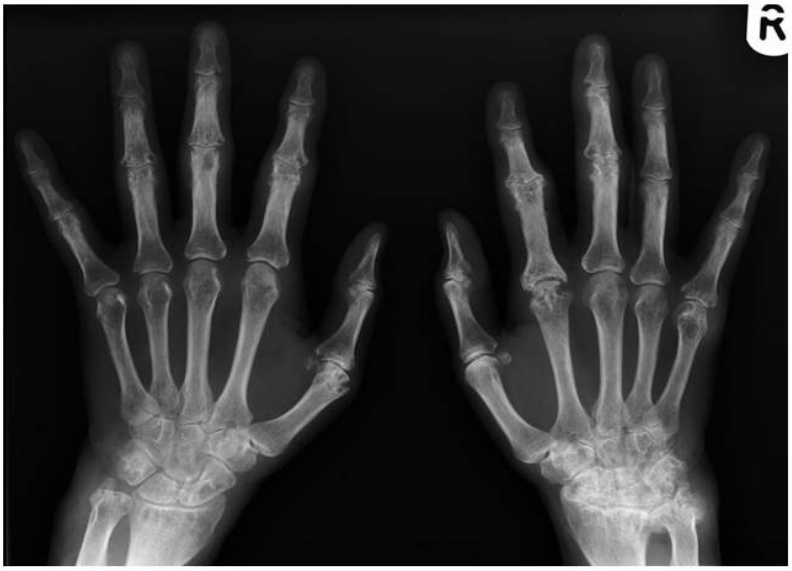
과사용 증후군의 치료

- 과사용 금지 현실적으로 많이 어렵다
- 소염제 오래 쓰면 부작용 나타난다
- 물리치료 오는 것 귀찮고 번거롭다
- 스테로이드 이름 듣자 마자 거부감
- 재생치료 비싸고 아픈 치료가 많다.

류마티스 관절염



류마티스 관절염

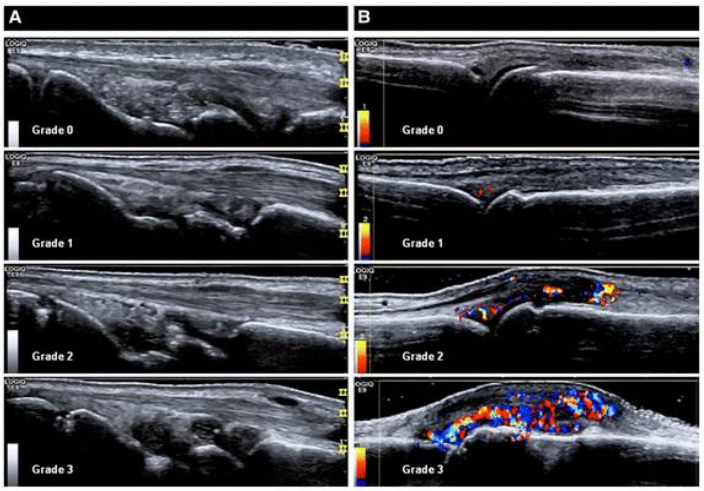


류마티스 관절염의 진단

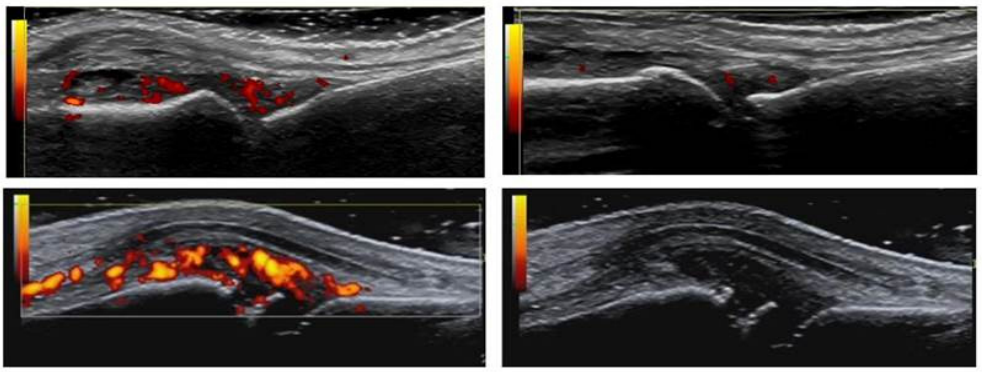
Table 3. The 2010 American College of Rheumatology/European League Against Rheumatism classification criteria for rheumatoid arthritis

	Score
Target population (Who should be tested?): Patients who	
1) have at least 1 joint with definite clinical synovitis (swelling)*	
2) with the synovitis not better explained by another disease†	
Classification criteria for RA (score-based algorithm: add score of categories A–D; a score of ≥6/10 is needed for classification of a patient as having definite RA)‡	
A. Joint involvement§	
1 large joint¶	0
2–10 large joints	1
1–3 small joints (with or without involvement of large joints)#	2
4–10 small joints (with or without involvement of large joints)	3
>10 joints (at least 1 small joint)**	5
B. Serology (at least 1 test result is needed for classification)††	
Negative RF *and* negative ACPA	0
Low-positive RF *or* low-positive ACPA	2
High-positive RF *or* high-positive ACPA	3
C. Acute-phase reactants (at least 1 test result is needed for classification)‡‡	
Normal CRP *and* normal ESR	0
Abnormal CRP *or* abnormal ESR	1
D. Duration of symptoms§§	
<6 weeks	0
≥6 weeks	1

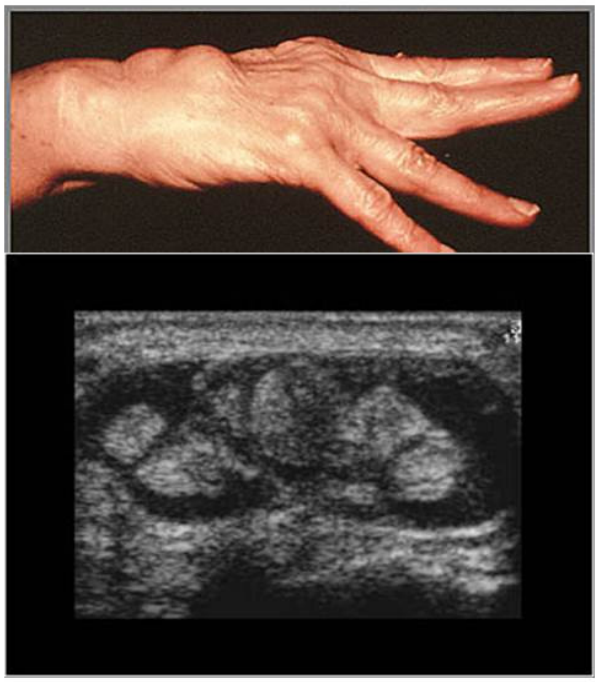
관절염의 정도 평가



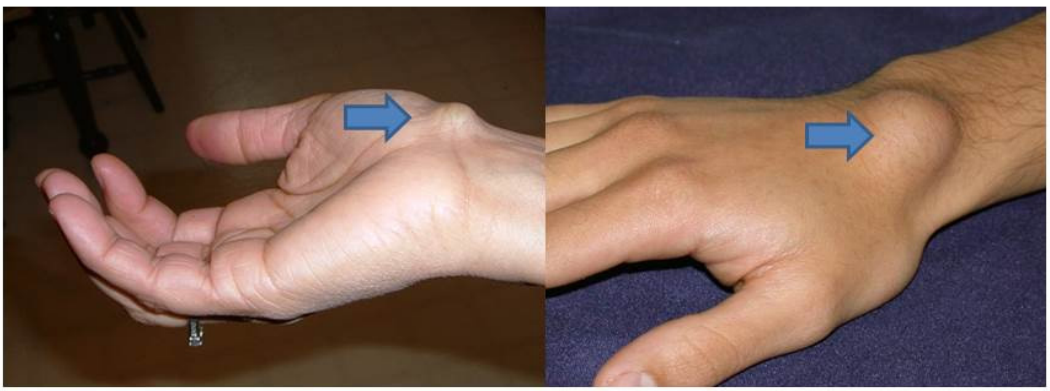
류마티스 관절염



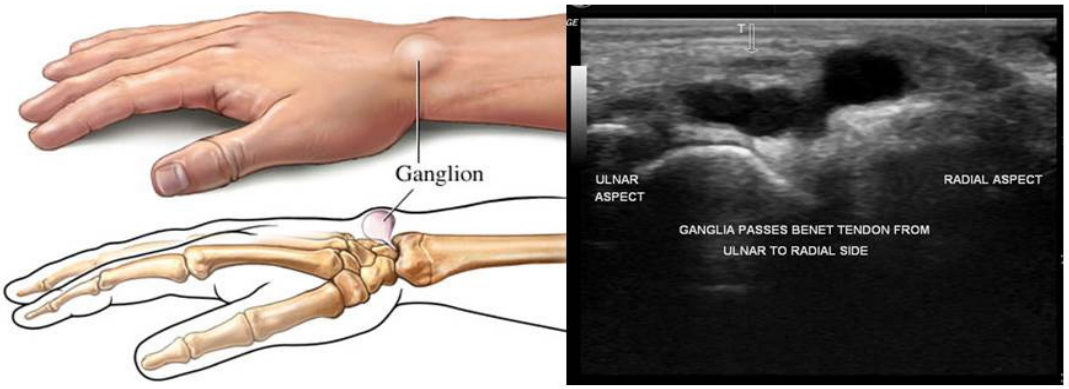
류마티스 건초염



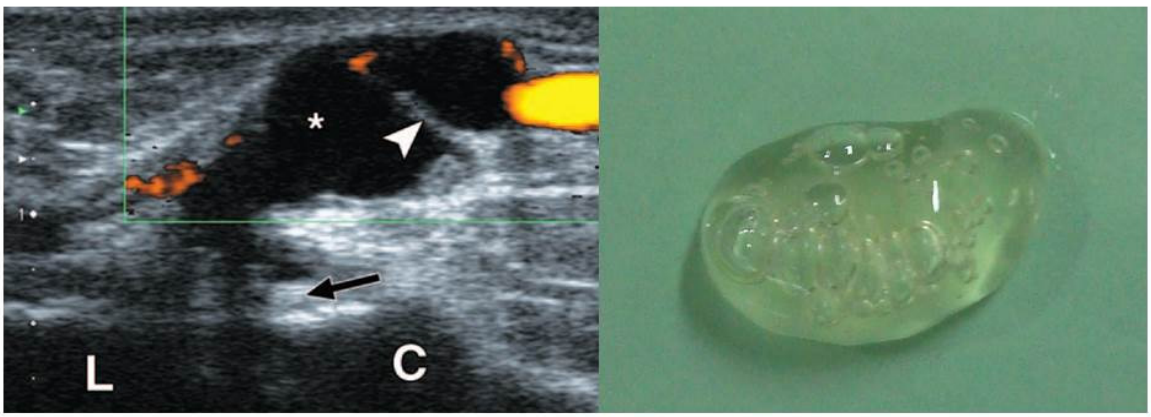
손목의 결절종



손목의 결절종



손목의 결절종



척측수근신전근 불안정