

Search

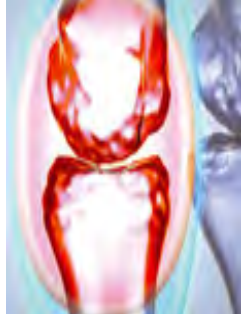
Rheumatoid Arthritis



Επιδημιολογια
Κλινικη Εικονα
Διαγνωση



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ (ΡΑ)



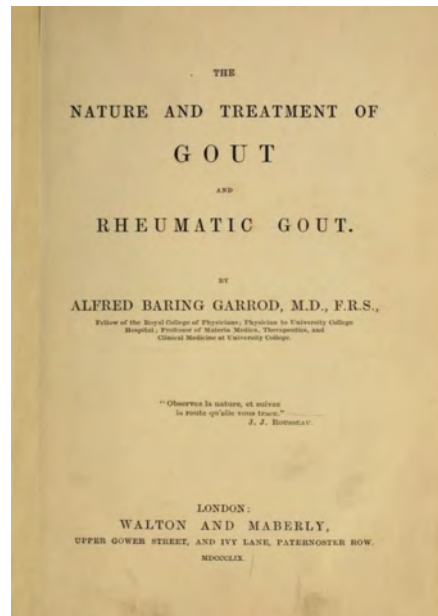
Ρευματοειδής ΝΟΣΟΣ

*χρόνια ,
αυτοάνοση,
φλεγμονώδης,
προοδευτική,
πολυσυστηματική*



Η ΙΣΤΟΡΙΑ ΤΗΣ ΡΑ

- 4.500 π.Χ
- Εμφάνιση στην Ευρώπη μετά τον 17^ο αιώνα
- Το όνομα δόθηκε το 1859 (Dr Alfred Baring Garrod)



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

ΕΠΙΔΗΜΙΟΛΟΓΙΑ – ΒΑΣΙΚΑ ΔΕΔΟΜΕΝΑ

- Incidence: 40/100,000 (USA and Northern Europe) –
 - i.e. about 4000 new RA patients per year in Greece
 - Overall Incidence appears stable BUT:
 - Significantly increased incidence of seronegative RA
 - Significantly decreased incidence of seropositive RA
 - Why? (diagnosis? // obesity? // smoking? // other?)
- Prevalence: 0.5-1% (worldwide 0.25%)
- F/M: from 3:1 moving towards 2:1
- Onset: any age
 - Peak onset: 30-50 years
- 1/3 stop work within 2 years of onset
- 50% have significant physical dysfunction within 10 years of onset
 - Not significant changes despite significant treatment improvements

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

ΕΠΙΔΗΜΙΟΛΟΓΙΑ – ΕΠΙΠΛΟΚΕΣ ΝΟΣΟΥ

- Amyloidosis.
- Anaemia.
- Dry eye syndrome (keratoconjunctivitis sicca), peripheral ulcerative keratitis.
- Felty's syndrome (enlarged spleen and low white blood cell count) — this affects less than 1% of people with RA.
- Fatigue.
- Increased mortality.
- Interstitial lung disease, pleural effusion, fibrosing alveolitis.
- Neuropathy.
- Orthopaedic problems, for example:
 - Carpal tunnel syndrome — typically around 10–20% of people with RA, although rates as high as 29% have been reported.
 - Increased joint replacement surgery.
 - Tendon rupture.
 - Cervical myelopathy.
- Vasculitis, vasculitic ulcers, rheumatoid nodules.
- Weight loss.

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

ΕΠΙΔΗΜΙΟΛΟΓΙΑ – ΕΠΙΠΛΟΚΕΣ ΘΕΡΑΠΕΙΑΣ

- **Gastrointestinal problems** — mainly due to the adverse effects of nonsteroidal anti-inflammatory drugs (NSAIDs).
- **Infection** — glucocorticoids and immunosuppressants increase the risk of infection.
- **Liver toxicity** — methotrexate-related.
- **Malignancy** — particularly TNF-alpha inhibitor-related (increased risk of skin cancer).
- **Osteoporosis** — low-dose glucocorticoid use in people with RA reduces bone mineral density and increases the risk of fractures. RA also increases the risk of osteoporosis in the absence of glucocorticoid use.
- Other...

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

ΕΠΙΔΗΜΙΟΛΟΓΙΑ - ΣΥΝΝΟΣΗΡΟΤΗΤΕΣ

- Cardiovascular disease – accelerated atherosclerosis is the leading cause of death in people with RA. Pericarditis is present in 30-50% of people with RA on autopsy, but rarely leads to tamponade.
- Depression.
- Lymphomas — the risk is double in people with RA, independent of immunosuppressant use.
- Serious infections.
- Other...

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

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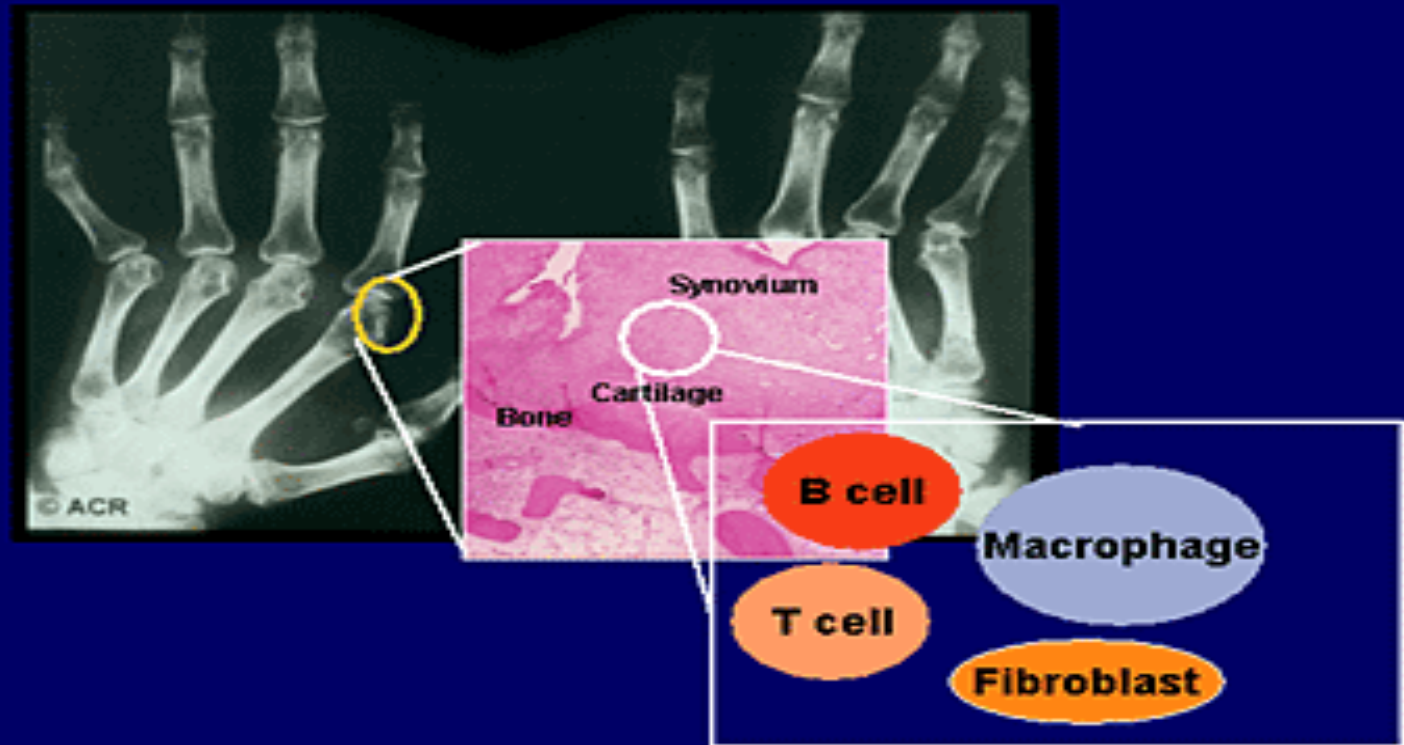
ΕΠΙΔΗΜΙΟΛΟΓΙΑ - ΣΥΝΝΟΣΗΡΟΤΗΤΕΣ

- **CONTINUOUSLY EVOLVING:**

- NATURAL HISTORY
- INFORMATION
- CONCEPTS
- OBSERVATIONS
- STRATEGIES
- IMPLEMENTATION
-

ΠΑΘΟΓΕΝΕΙΑ ΡΑ

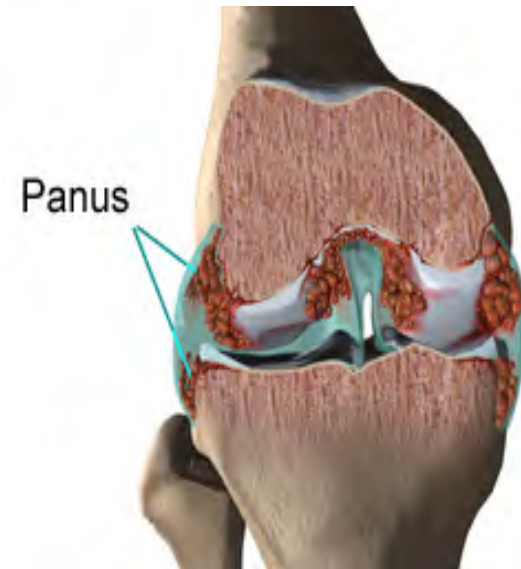
Progressive Joint Damage and Inflammation in Rheumatoid Arthritis



ΠΑΘΟΓΕΝΕΙΑ ΡΑ

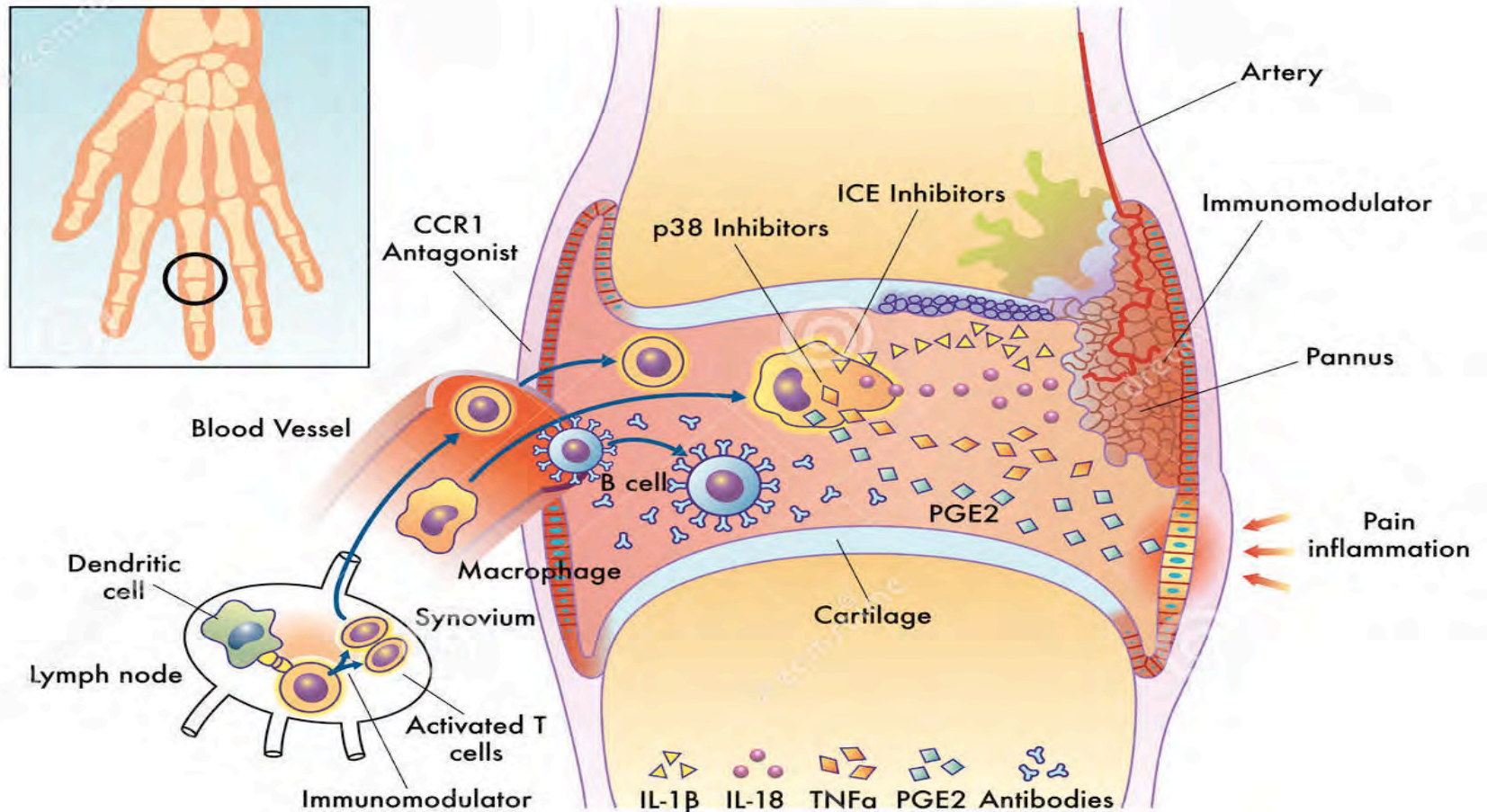


ΥΜΕΝΙΤΙΔΑ
ΙΝΩΔΗΣ ΑΓΚΥΛΩΣΗ
ΟΣΤΙΚΗ ΑΓΚΥΛΩΣΗ
ΟΣΤΕΟΠΟΡΩΣΗ



ΠΑΘΟΓΕΝΕΙΑ ΡΑ

Rheumatoid arthritis



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ
ΚΛΙΝΙΚΗ ΕΙΚΟΝΑ

ΠΑ ΚΑΙ ΑΚΡΑ ΧΕΙΡΑ



5 Major Symptoms Of Arthritis In Fingers

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ

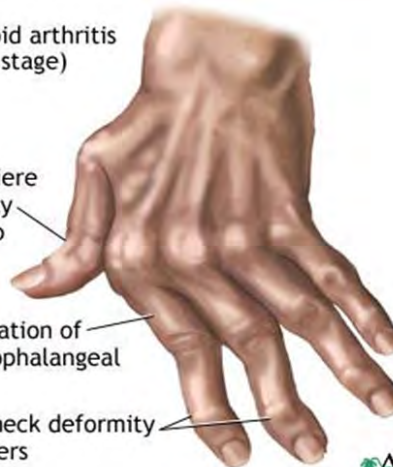


Rheumatoid arthritis
(late stage)

Boutonniere
deformity
of thumb

Ulnar deviation of
metacarpophalangeal
joints

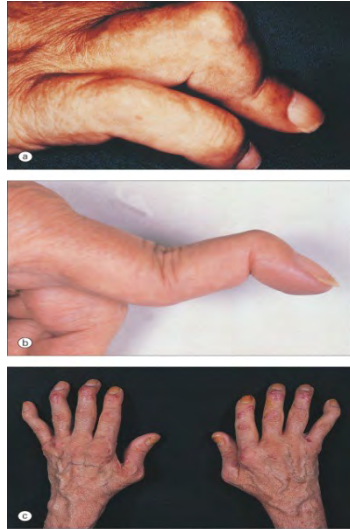
Swan-neck deformity
of fingers



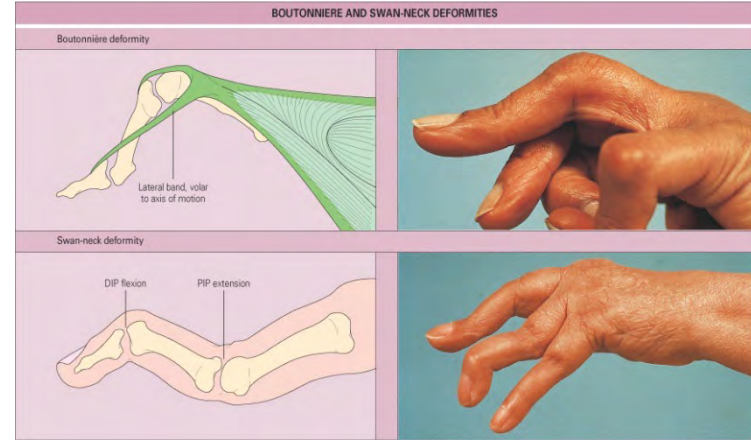
ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ



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Εικόνα 25. Ρευματοειδής αρθρίτιδα. Α: Διόγκωση των εγγύς μεσοφαλαγγικών αρθρώσεων (βέλη). Β: Διόγκωση των πιγχοκαρπικών αρθρώσεων (ανοιχτά βέλη) και των μετακαρποφαλαγγικών αρθρώσεων των χειρών (συμπαγή βέλη).

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ



ΑΡΘΡΟΠΑΘΕΙΑ JACCOUD'S

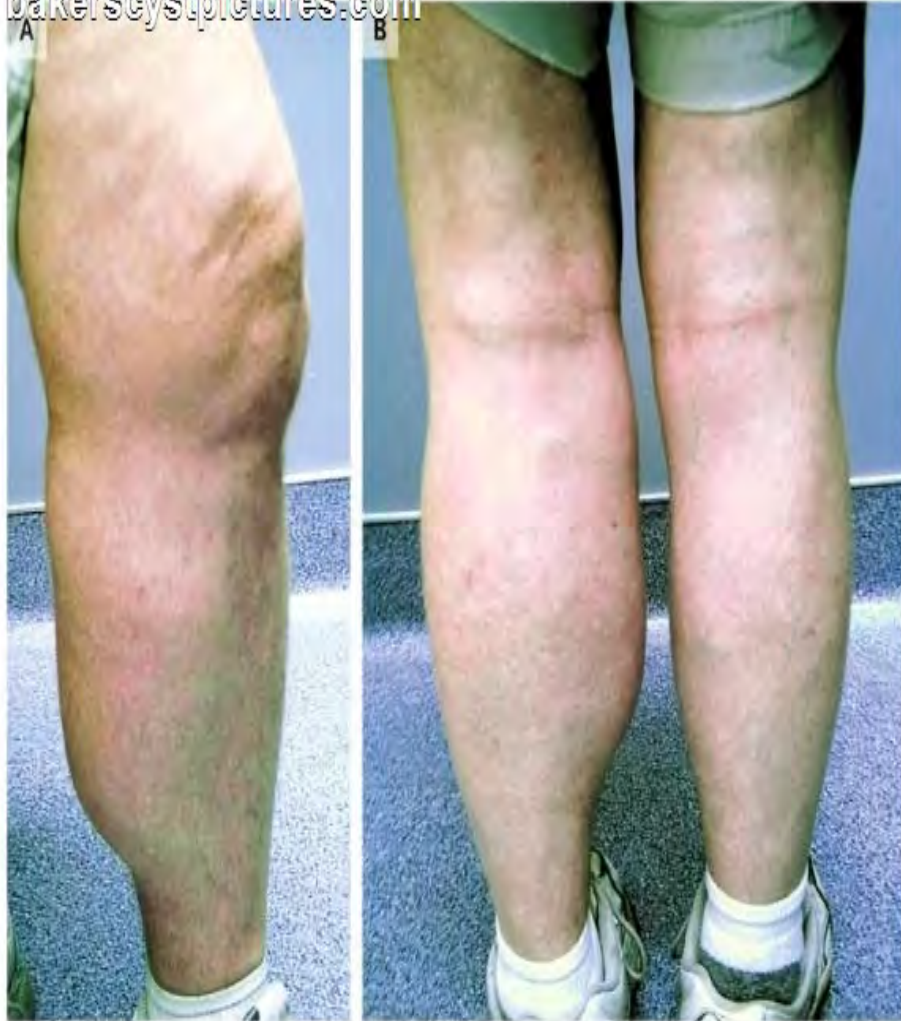
- ✓ Μη διαβρωτική, μη παραμορφωτική αρθρίτιδα
- ✓ Ανατάξιμες παραμορφώσεις (ωλένια απόκλιση 2^{ου}-5^{ου} δακτύλου, λαιμός κύκνου, υπεξάρθρημα ΜΚΦ, υπερέκταση)
- ✓ Νοσήματα συνδετικού ιστού (ΣΕΛ, συστ.σκλήρυνση, Sjogren, σαρκοείδωση, ψωριασική αρθρίτιδα...)
- ✓ Κλινικά: πόνος, περιορισμός κινητικότητας



ΡΑ ΚΑΙ ΓΟΝΑΤΑ



bakerscystpictures.com



ΡΑ ΚΑΙ ΑΚΡΟΣ ΠΟΥΣ



This photograph shows the appearance of nodules on the heel and outer aspect of the foot in a person who has had RA for more than 20 years.

nodules

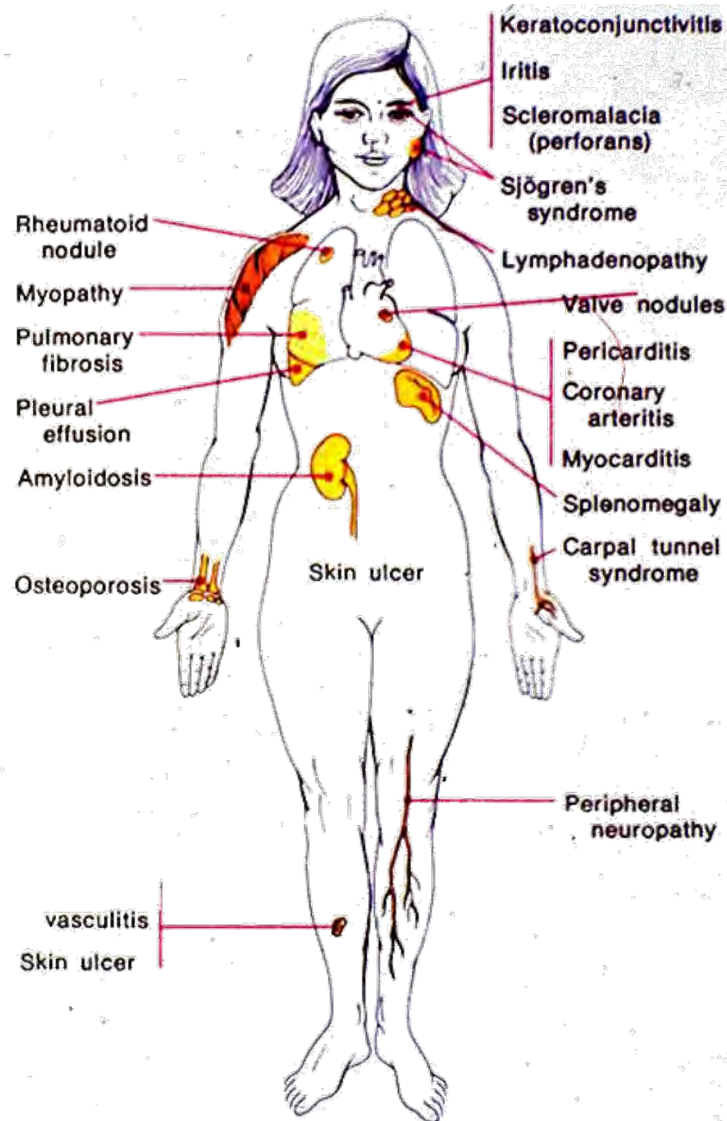
Image courtesy of Salford University



ΡΑ ΚΑΙ ΑΜΣΣ



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ ΕΞΩΑΡΘΡΙΚΕΣ ΕΚΔΗΛΩΣΕΙΣ



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ ΟΦΘΑΛΜΟΣ



ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ ΑΓΓΕΙΑ / ΔΕΡΜΑ



Διαφορική διάγνωση νόσου Raynaud από το σύνδρομο Raynaud

	<i>Νόσος Raynaud</i>	<i>Σύνδρομο Raynaud</i>
Φύλο:	νέες γυναίκες	άνδρες
Συμμετρικότητα:	συμμετρικό	ασύμμετρο
Ισχαιμικές βλάβες:	σπάνιες	συχνές
Έκλυση στο ψύχος:	συνήθης	ασυνήθης
Γάγγραινα:	σπανία	συχνή
Υποκειμένη νόσος:	όχι	ναι

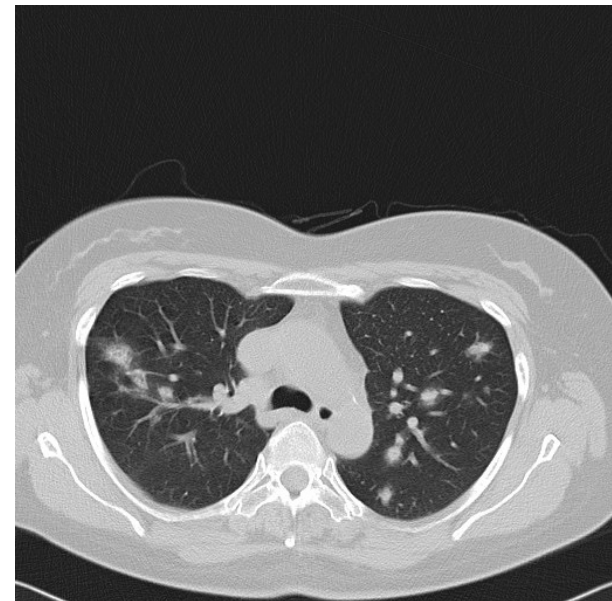
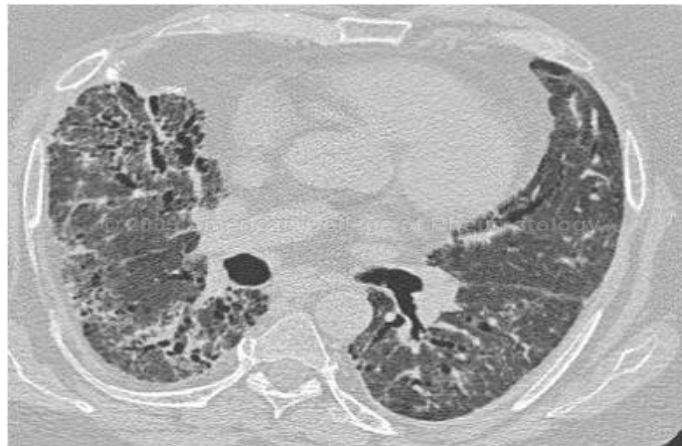
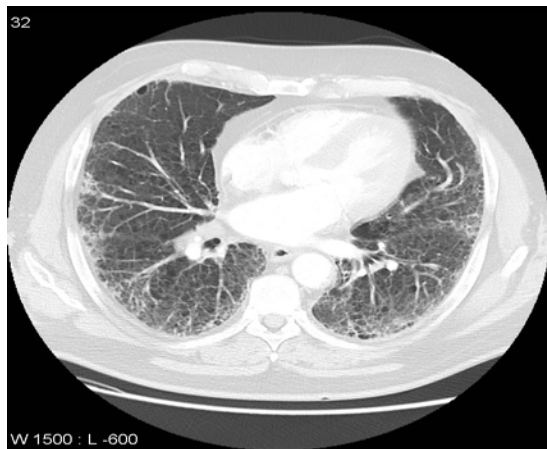
ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ ΟΖΙΔΙΑ / ΓΑΓΓΛΙΑΚΕΣ ΚΥΣΤΕΙΣ



ΡΑ ΚΑΙ ΠΝΕΥΜΟΝΕΣ

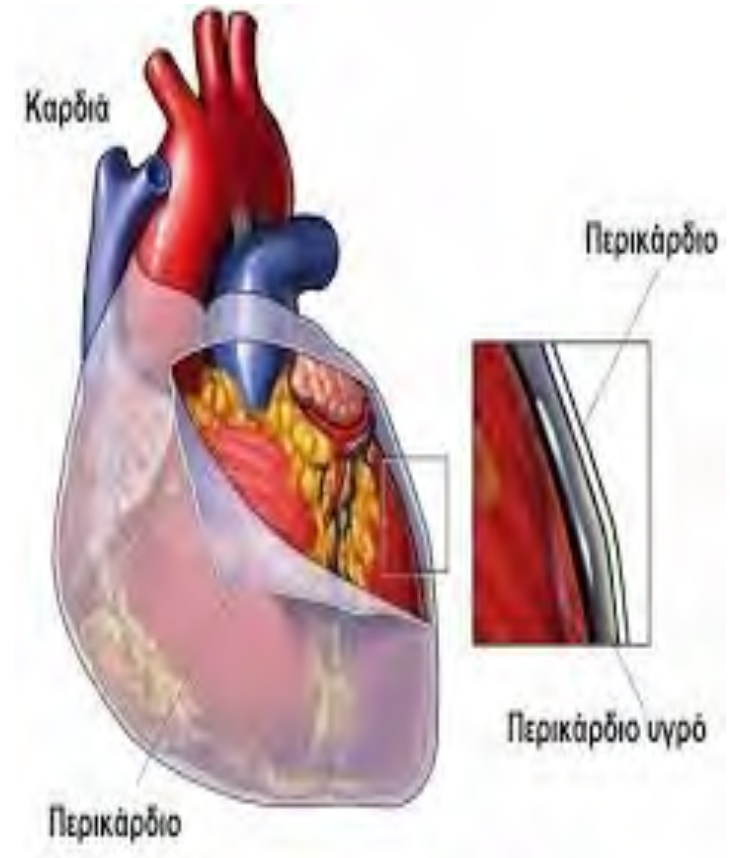


- ΠΛΕΥΡΙΤΙΔΑ
- ΔΙΑΜΕΣΗ ΠΝΕΥΜΟΝΙΤΙΔΑ
- ΠΝΕΥΜΟΝΙΚΗ ΙΝΩΣΗ
- ΟΖΙΔΙΑ
- ΩΣ ΦΑΡΜΑΚΕΥΤΙΚΗ ΕΠΙΠΛΟΚΗ

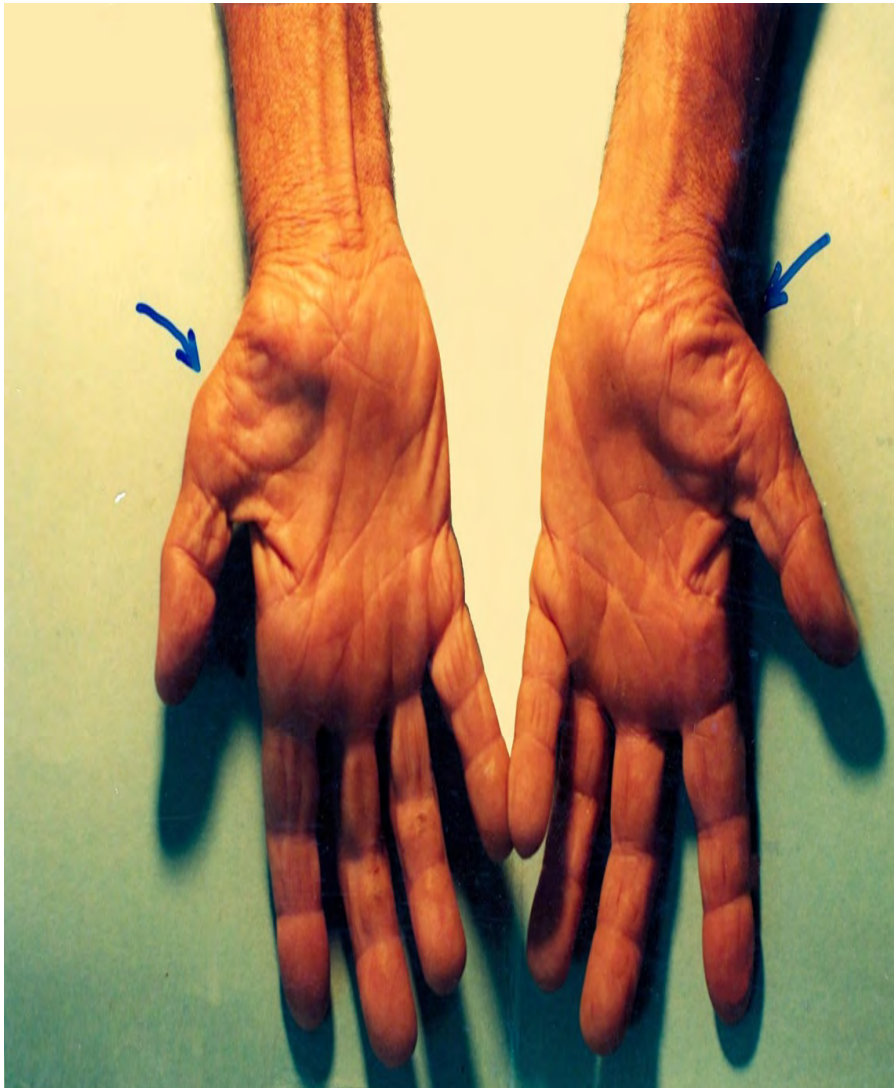


ΡΑ ΚΑΙ ΚΑΡΔΙΑ

- ΠΕΡΙΚΑΡΔΙΤΙΔΑ
- ΜΥΟΚΑΡΔΙΤΙΔΑ
- ΑΡΡΥΘΜΙΕΣ
- ΑΡΤΗΡΙΑΚΗ ΥΠΕΡΤΑΣΗ
- ΙΣΧΑΙΜΙΚΗ ΚΑΡΔΙΟΠΑΘΕΙΑ



ΝΕΥΡΟΛΟΓΙΚΕΣ ΕΚΔΗΛΩΣΕΙΣ ΣΥΝΔΡΟΜΑ ΠΑΓΙΔΕΥΣΗΣ



ΔΙΑΓΝΩΣΗ ΡΑ

- ΙΣΤΟΡΙΚΟ
- ΚΛΙΝΙΚΗ ΕΞΕΤΑΣΗ
- ΕΞΕΤΑΣΕΙΣ (ΑΙΜΑΤΟΛΟΓΙΚΕΣ ΚΑΙ ΑΠΕΙΚΟΝΙΣΤΙΚΕΣ)



The American College of Rheumatology criteria for RA

**at least 4 criteria must be met for classification as RA*

- Morning stiffness of >1 hour most mornings for at least 6 weeks.
- Arthritis and soft-tissue swelling of >3 of 14 joints/joint groups, present for at least 6 weeks
- Arthritis of hand joints, present for at least 6 weeks
- Symmetric arthritis, present for at least 6 weeks
- Subcutaneous nodules
- Rheumatoid factor at a level above the 95th percentile
- Radiological changes suggestive of joint erosion

2010 ACR/EULAR Classification Criteria for Rheumatoid Arthritis



AMERICAN COLLEGE
OF RHEUMATOLOGY
EDUCATION • TREATMENT • RESEARCH

eular

Classification criteria for RA

		Score
Joint involvement	• 1 large joint	0
	• 2-10 large joints	1
	• 1-3 small joints (with/without large joint involvement)	2
	• 4-10 small joints (with/without large joint involvement)	3
	• >10 joints (at least 1 small joint)	5
Serology	• RF and anti-CCP negative	0
	• Low +ve RF or low +ve anti-CCP	2
	• High +ve RF or high +ve anti-CCP	3
Acute phase reactants	• Normal CRP and normal ESR	0
	• Abnormal CRP or abnormal ESR	1
Duration	• <6 weeks	0
	• ≥6 weeks	1

≥6/10 = Rheumatoid arthritis

Διαφορές μεταξύ ταξινομικών και διαγνωστικών κριτηρίων

Διαγνωστικά κριτήρια	Ταξινομικά κριτήρια
Χρησιμοποιούνται από το γιατρό, προκειμένου να τεθεί η διάγνωση	Εφαρμόζονται σε ασθενείς, στους οποίους έχει ήδη τεθεί η διάγνωση
Η διαγνωστική τους αξία εξαρτάται από τον επιπολασμό της νόσου στο κλινικό πλαίσιο (clinical setting), στο οποίο γίνεται η διάγνωση	Ο επιπολασμός της νόσου δεν έχει σημασία, από τη στιγμή που όλοι οι ασθενείς πρέπει να έχουν τη νόσο (να έχουν ήδη διαγνωστεί)
Σκοπός τους είναι να βοηθήσουν στη διάγνωση συγκεκριμένων ασθενών	Σκοπός τους είναι η διασφάλιση της ομοιογένειας του υλικού και της εσωτερικής εγκυρότητας των κλινικών και εμπειρικών μελετών
Πρέπει να έχουν υψηλή ευαισθησία , ώστε να αναγνωρίζουν τους κατά το δυνατόν περισσότερους από τους ασθενείς που έχουν τη νόσο	Πρέπει να έχουν υψηλή ειδικότητα ($\approx 100\%$), ώστε να αποφεύγεται η είσοδος στις μελέτες, ασθενών που δεν έχουν τη νόσο
Πρέπει να αφήνουν περιθώρια ευελιξίας αναφορικά με τη διαγνωστική εμπιστοσύνη (η διάγνωση μπορεί να είναι οριστική, πιθανή, δυνατή, διάγνωση εργασίας)	Η απάντηση είναι δихοτόμος (τα κριτήρια ταξινόμησης ή πληρούνται ή δεν πληρούνται)
Εφαρμόζονται σε μεμονωμένους ασθενείς	Εφαρμόζονται σε ομάδες ασθενών

Προκαταρκτικά

(preliminary)

*Δεν έχει γίνει
ποσοτική επικύρωση*

Διαγνωστικά

*Έχουν προσδιοριστεί
οι διαγνωστικές αξίες
(ευαισθησία, ειδικότητα, προγνωστικές
αξίες, λόγοι πιθανοφάνειας κ.τ.τ.)*

ΚΡΙΤΗΡΙΑ

Προτεινόμενα

(ACR Provisional Criteria)

*Επικύρωση σε δείγμα ασθενών
εκτός κλινικών δοκιμών*

Οριστικά

(ACR recommendations, guidelines,
etc.)

*Επικύρωση
σε δείγμα κλινικών δοκιμών*

When to suspect RA

- **Suspect rheumatoid arthritis (RA) in anyone with persistent synovitis, where no other underlying cause is obvious** (for example, psoriatic arthritis).
 - Clinical judgement should be used to decide if the synovitis is 'persistent' (lasting a few weeks rather than days).
- **RA typically causes symmetrical synovitis of the small joints of the hands and feet, although *any* synovial joint may be affected.** Clinical features of synovitis include:
 - **Pain, swelling, heat and stiffness in affected joints.**
 - Pain — usually this is worse at rest or during periods of inactivity.
 - Swelling — around the joint (not bone swelling) giving a 'boggy' feel on palpation.
 - Stiffness — early morning stiffness usually last over 1 hour (a history of prolonged morning stiffness is more helpful when forming a diagnosis than currently having morning stiffness for early RA).

When is RA more likely

- **Persistent synovitis, and a poorer prognosis, is more likely when:**
 - A greater number of joints are affected (the more joints the worse the prognosis).
 - There is swelling and tenderness in the affected joints (particularly small joints).
 - The proximal interphalangeal joints and metacarpophalangeal joints are affected and there is symmetry of joints affected.
 - There is a positive metacarpophalangeal squeeze test – pain on squeezing the metacarpophalangeal or metatarsophalangeal joints together.
- An inability to make a fist or flex fingers is associated with an ability to diagnose RA from other diagnoses.

Other presenting features of RA

- **In addition to joint synovitis, RA may present with:**
 - Rheumatoid nodules — hard, firm swellings over extensor surfaces occur in a third of people with RA.
 - Extra-articular features such as vasculitis, or involvement of other body systems (for example, eye, lungs, and heart).
 - Systemic features of malaise, fatigue, fever, sweats, and weight loss.
 - A family history of RA.
- **The presentation of RA is variable.** Most people have an insidious onset, but others can have a rapid, or relapsing and remitting course (such as a palindromic presentation).

Differential Diagnosis

- **Connective tissue disorders** — for example, systemic lupus erythematosus (SLE). There may be polyarthritis in the small joints of the hands and feet, but SLE arthritis is usually non-deforming. Suspect this if there are additional signs and symptoms (for example, rash, mouth ulcers, alopecia, Raynaud's syndrome or Sicca syndrome).
- **Fibromyalgia** — suspect if numerous myofascial trigger points and somatic symptoms are present.
- **Infectious arthritis (viral or bacterial)** — suspect this if the person has an ongoing infection. Direct infection of a joint is rare, seek urgent specialist advice if it is suspected.
- **Osteoarthritis**
- **Polyarticular gout** — suspect this if the person has risk factors for gout, or visible tophi.
- **Polymyalgia rheumatica** — suspect this if the main symptoms are shoulder pain and stiffness.
- **Psoriatic arthritis** — commonly involves small joints of the hands and feet, but is less often symmetrical. Unlike rheumatoid arthritis the distal interphalangeal joints may be involved. Psoriasis is present in over 90% of people with psoriatic arthritis.
- **Reactive arthritis** — suspect this if the person has recently had a viral or bacterial infection. There is no direct infection in the joint, but it can cause symmetric hand and feet arthritis.
- **Sarcoidosis** — chest X-ray may be helpful if this is suspected.
- **Septic arthritis** — suspect this if a single joint is hot and swollen, especially if there are signs of sepsis (such as fever).
- **Seronegative spondyloarthritis** — suspect this if there is a history of psoriasis, back pain, or bowel problems.

ΡΕΥΜΑΤΟΕΙΔΗΣ ΑΡΘΡΙΤΙΔΑ
ΔΙΕΡΕΥΝΗΣΗ - ΔΙΑΓΝΩΣΗ

ΕΡΓΑΣΤΗΡΙΑΚΟΣ ΕΛΕΓΧΟΣ ΣΤΗ ΡΑ

- ΔΕΙΚΤΕΣ ΦΛΕΓΜΟΝΗΣ
- ΑΝΑΙΜΙΑ
- RF
- Anti-CCP
- ΒΙΟΧΗΜΙΚΑ
- ΙΟΛΟΓΙΚΟΣ
- ΑΡΘΡΙΚΟ ΥΓΡΟ

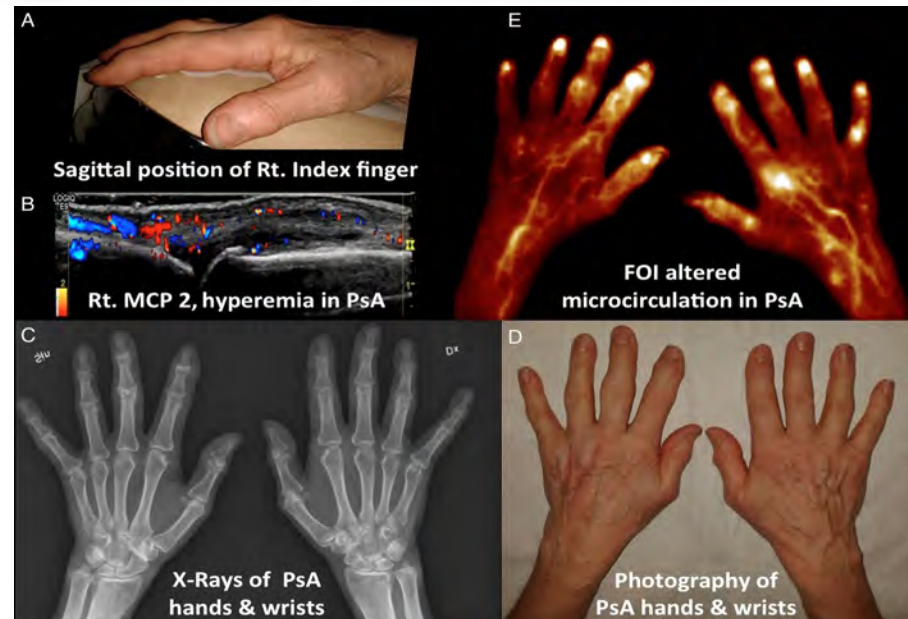


Sensitivity and Specificity Comparison Anti-CCP and RF

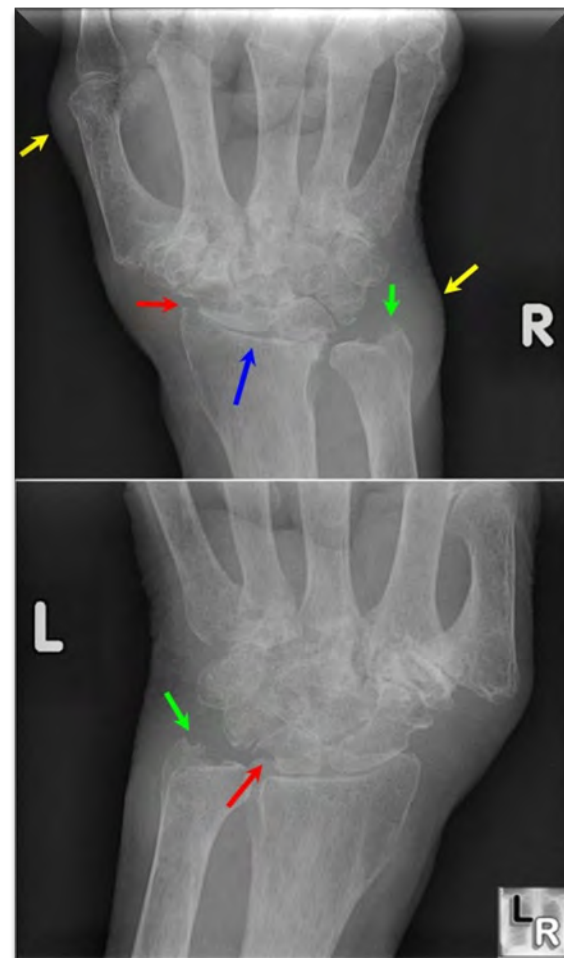
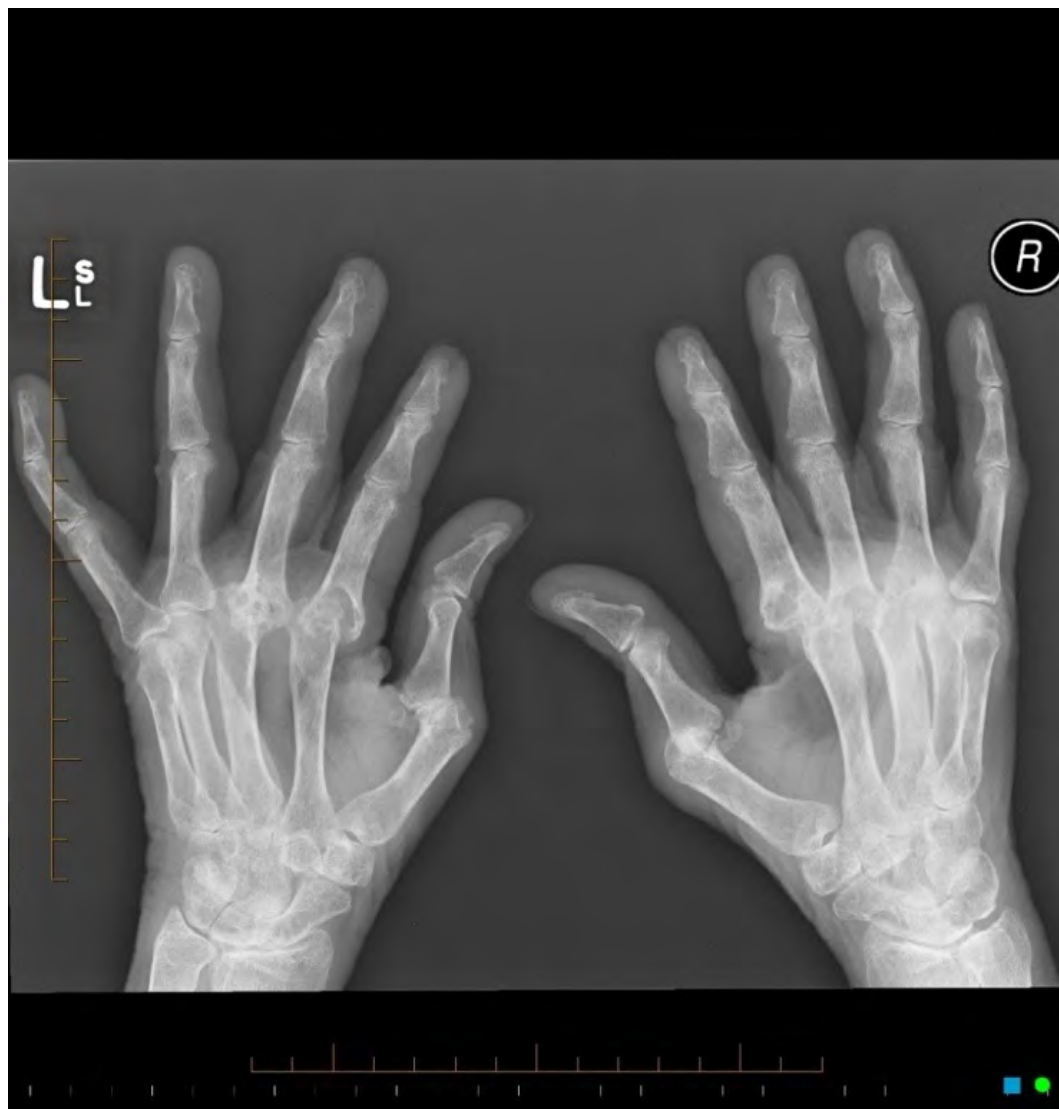
	Second-Generation Anti-CCP ELISA		Third-Generation Anti-CCP ELISA		Rheumatoid Factor	
	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity
Patients with RA in comparison to healthy controls	80%	98%	78%	100%	78%	91%
Patients with RA in comparison to patients with other CTDs		94%		91%		88%

ΑΠΕΙΚΟΝΙΣΤΙΚΟΣ ΕΛΕΓΧΟΣ ΣΕ ΡΑ

- ΑΠΛΕΣ Α/ες
- ΥΠΕΡΗΧΟΙ
- CT
- MRI
- SCANNING ΟΣΤΩΝ
- ΗΜΓ/ΗΝΓ
- PET/CT



ΑΠΛΗ ΑΚΤΙΝΟΓΡΑΦΙΑ ΣΤΗΝ ΡΑ





Marginal erosion

Erosions

Soft tissue swelling



Boutonniere deformity
of the thumb

Flexion with dislocation of
the first MCP joint

Hyperextension of the
IP joint



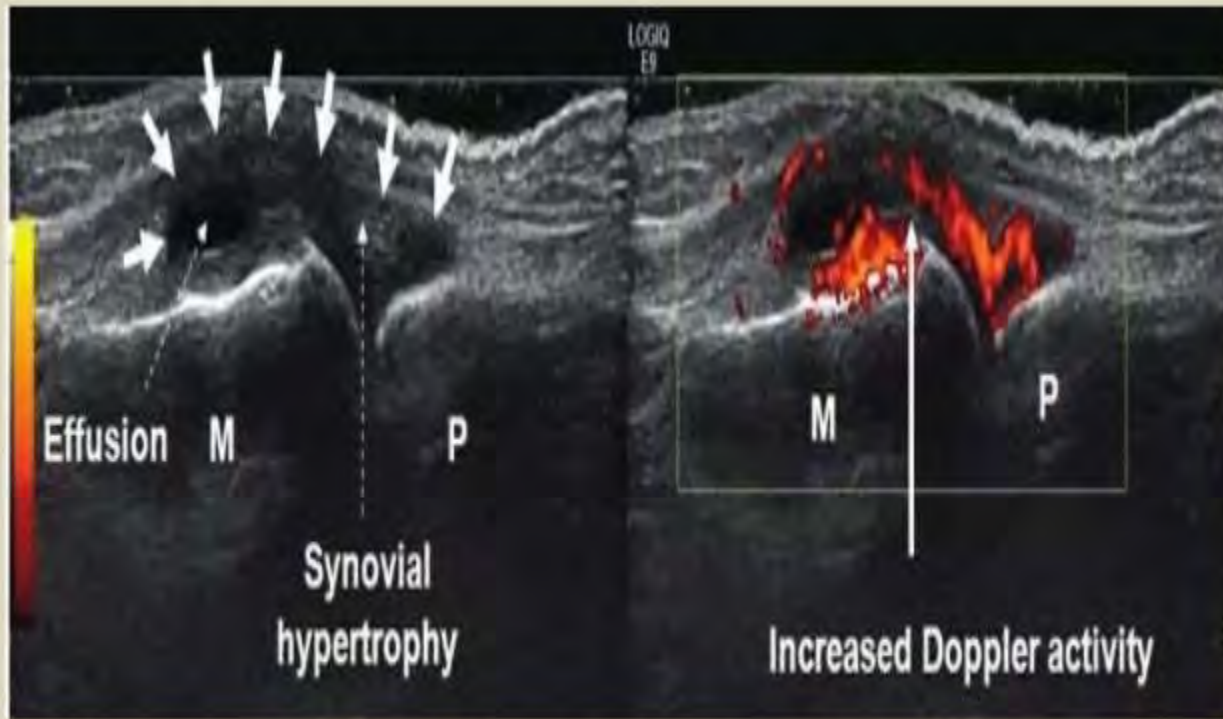


Rheumatoid foot

Multiple osseous erosions and defects at the medial and lateral margins of the metatarsal heads

Marginal erosions at the bases of the proximal phalanges (arrows)

ΥΠΕΡΗΧΟΙ ΣΤΗΝ ΡΑ



Grey scale ultrasound can be used to demonstrate synovitis. In this image of a metacarpophalangeal joint of a patient with rheumatoid arthritis, the joint capsule is markedly distended outwards (arrows) due to underlying synovial effusion and hypertrophy. The presence of power Doppler demonstrates the increased microvascular flow of the joint, which is suggestive of active inflammation. M, metacarpal bone; P, proximal phalanx.

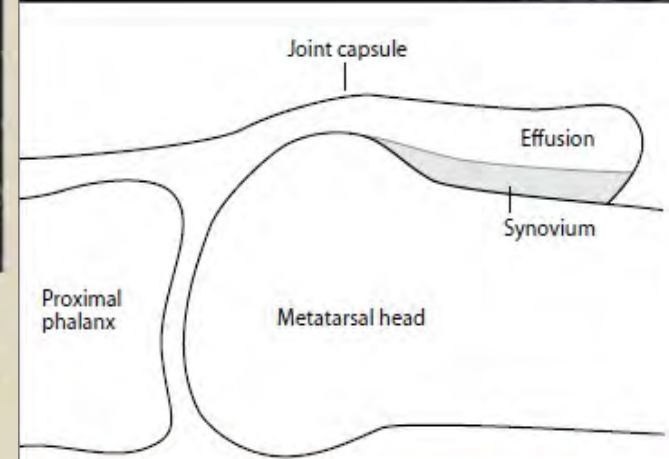


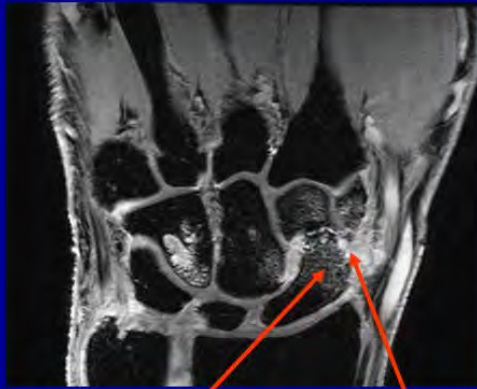
FIGURE 1. Grey-scale of early osteoarthritis of the 1st metatarsophalangeal joint (dorsal longitudinal scan). There is a small anechoic effusion with some hypoechoic synovial thickening within the joint capsule. The bony cortex is hyperechoic (arrow). [A anechoic effusion; H hypoechoic synovium]

MRI ΣΤΗΝ ΡΑ

Joint inflammation in RA

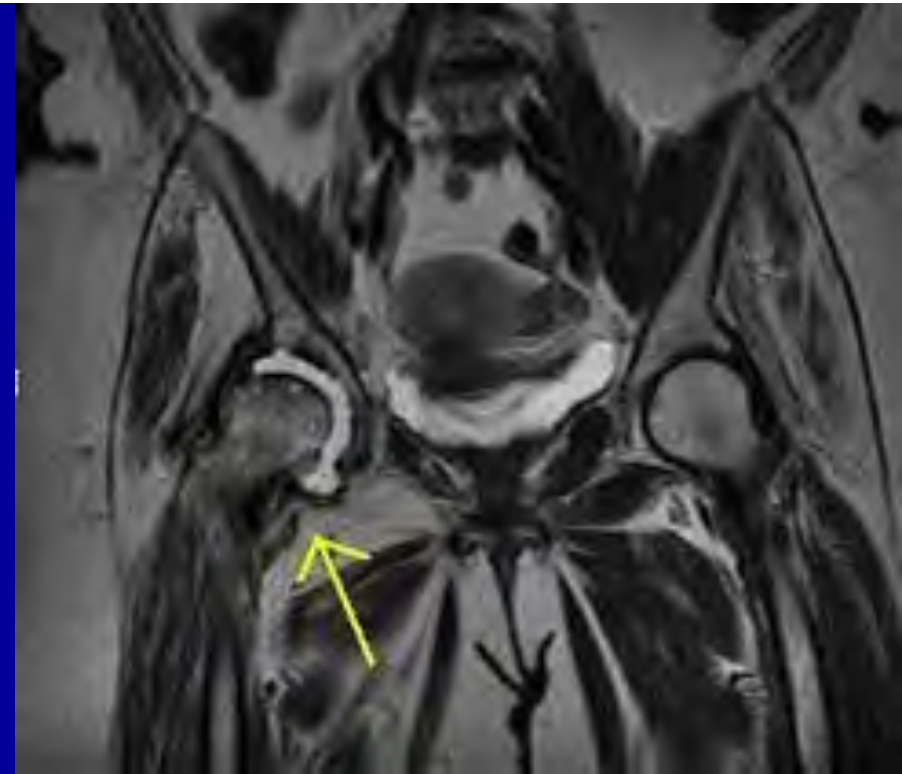
Rheumatoid wrist

Normal wrist



Inflammation within bone synovial inflammation

3 Tesla MRI provided by Xiaojuan Li PhD



Diagnostic tests for RA - Summary

- **There is no specific diagnostic test for rheumatoid arthritis (RA), the diagnosis is clinical. [Refer](#) all people [suspected](#) of having RA for specialist assessment.**
- **If RA is suspected clinically, investigations are not necessary in primary care, however, consider the following tests to speed up the diagnostic process:**
 - Offer to carry out a blood test for rheumatoid factor — this is present in 60–70% of people with RA.
 - Consider measuring anti-cyclic citrullinated peptide (anti-CCP) antibodies in people if they are negative for rheumatoid factor — these are found in about 80% of people with RA.
 - Arrange X-ray of the hands and feet — these help with diagnosis and determination of disease severity.
- **Consider the following tests to speed up the diagnostic process, and to act as a baseline measure prior to [treatment](#):**
 - Full blood count, renal and liver function tests — these will help guide treatment and identify any relevant comorbidities.
 - C-reactive protein or erythrocyte sedimentation rate — inflammatory markers are usually, but not always, elevated in RA (up to 40% of people with RA may have normal levels).
 - Ultrasound or magnetic resonance imaging (MRI) of joints — depending on local policy and availability.
- **Do not let investigations delay a referral for clinically suspected RA.**

Search

Rheumatoid Arthritis



Επιδημιολογία - αλλάζει με τα χρόνια

Κλινική Εικόνα - αλλάζει με τα χρόνια

Διαγνώση - **ΒΑΣΙΚΑ ΚΛΙΝΙΚΗ!!!**

CECIL ADONSEN
DENMARK



ΤΥΠΟΙ ΡΑ

- ΠΡΩΙΜΗ
- ΕΓΚΑΤΕΣΤΗΜΕΝΗ
- ΟΨΙΜΟΥ ΕΝΑΡΞΗΣ
- ΟΡΟΘΕΤΙΚΗ
- ΟΡΟΑΡΝΗΤΙΚΗ



ΚΛΙΝΙΚΗ ΕΚΤΙΜΗΣΗ ΤΗΣ ΡΑ

ΔΕΙΚΤΕΣ

ΛΕΙΤΟΥΡΓΙΚΟΤΗΤΑΣ ΚΑΙ ΕΝΕΡΓΟΤΗΤΑΣ

ΕΡΩΤΗΜΑΤΟΛΟΓΙΑ

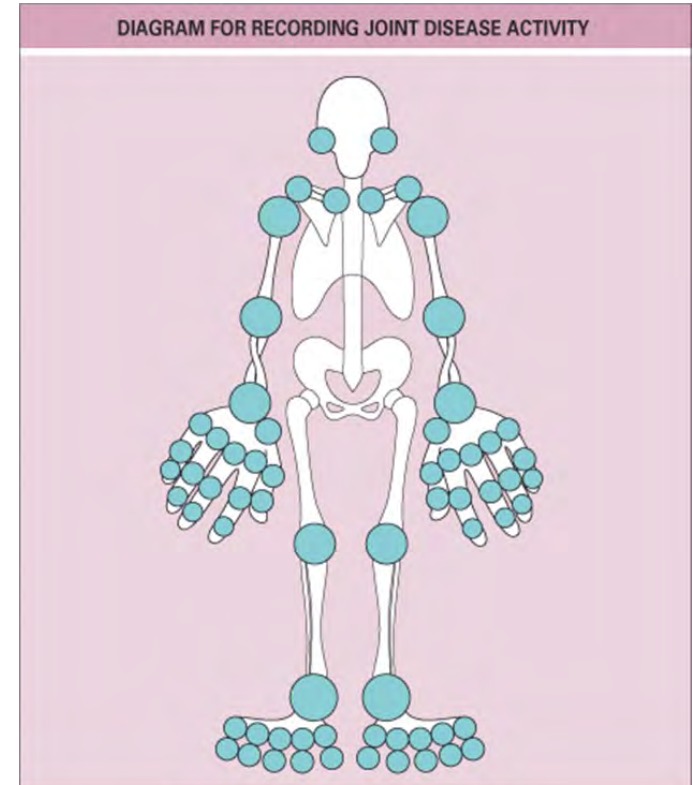


Table 1. Outcome Measures for Assessing Response to Treatment of Rheumatoid Arthritis*

Measurement (Reference)	Outcome Measured	Measurement Scale and Clinically Meaningful Differences (Reference)
ACR response criteria (14)	Categorical physician, patient, and laboratory assessment of improvements in disease activity in response to treatment	ACR 20, ACR 50, and ACR 70: 20%, 50%, and 70% improvements, respectively, in the components of the ACR criteria Major clinical response: ACR 70 maintained for 6 consecutive months Extended major clinical response: ACR 70 maintained for 9 consecutive months
DAS28 (15)	Continuous physician, patient, and laboratory assessment of current disease activity levels, as well as improvements in disease activity in response to treatment	Scale of 0–10: high disease activity, ≥ 5.1 ; low disease activity, ≤ 3.2 ; remission, < 2.6 ; minimum clinically important improvement, ≥ 1.2
HAQ-DI (16)	Patients' self-assessment questionnaire of 8 subscales relating to physical disability	Scale of 0–3 (no disability = 0, completely disabled = 3): minimum clinically important improvement, ≥ 0.22 (11)†
SF-36 (17)	Patients' self-assessment questionnaire measuring mental and physical aspects of health-related quality of life, consisting of 8 subscales and the MCS‡ and PCS‡	Scale of 0–100 (worst = 0, best = 100): minimum clinically meaningful improvement, ≥ 3 units (18, 19)
Genant-modified Sharp score (12, 13)	Assessment of changes in structural damage, scored independently by 2 specially trained radiologists blinded to treatment group assignment and chronological order of radiography	Erosion score: 8-point scale scored in 0.5-point increments (0 [normal] to 3.5 [severe]): maximum achievable normalized erosion score, 145 Joint-space narrowing score: 9-point scale scored in 0.5-point increments (0 [normal] to 4.0 [ankylosed]): maximum achievable normalized joint-space narrowing score, 145 Total score: combination of erosion and joint-space narrowing scores; maximum achievable normalized score, 290

* ACR = American College of Rheumatology; DAS28 = Disease Activity Score 28; HAQ-DI = Health Assessment Questionnaire Disability Index; MCS = mental component summary; PCS = physical component summary; SF-36 = Medical Outcomes Study Short Form-36 Health Survey.

† A HAQ-DI response was defined as an improvement from baseline of ≥ 0.3 unit.

‡ MCS and PCS are derived from a weighted linear combination of the 8 individual subscales of the SF-36.

Simplified disease activity index (SDAI)

Clinical disease activity index (CDAI)

Tender-joint count of 28 joints

Swollen-joint count of 28 joints

C-reactive protein

Patient global assessment of disease activity
on visual analogue scale

Evaluator global assessment of disease activity
on visual analogue scale

SDAI is the numerical sum of the above components
(range, 0–86)

Categories

Remission, ≤ 3.3

Low disease activity, > 3.3 and ≤ 20

Moderate disease activity, > 20 and ≤ 40

High disease activity, > 40

Major improvement: decrease of 22 or more

Minor improvement: decrease of 10–21

Tender-joint count of 28 joints

Swollen-joint count of 28 joints

Patient global assessment of disease activity on visual analogue
scale

Evaluator global assessment of disease activity on visual
analogue scale

CDAI is the numerical sum of the above components
(range, 0–76)

Categories

Remission, ≤ 2.8

Low disease activity, > 2.8 and ≤ 10

Moderate disease activity, > 10 and ≤ 22

High disease activity, > 22

DAS28

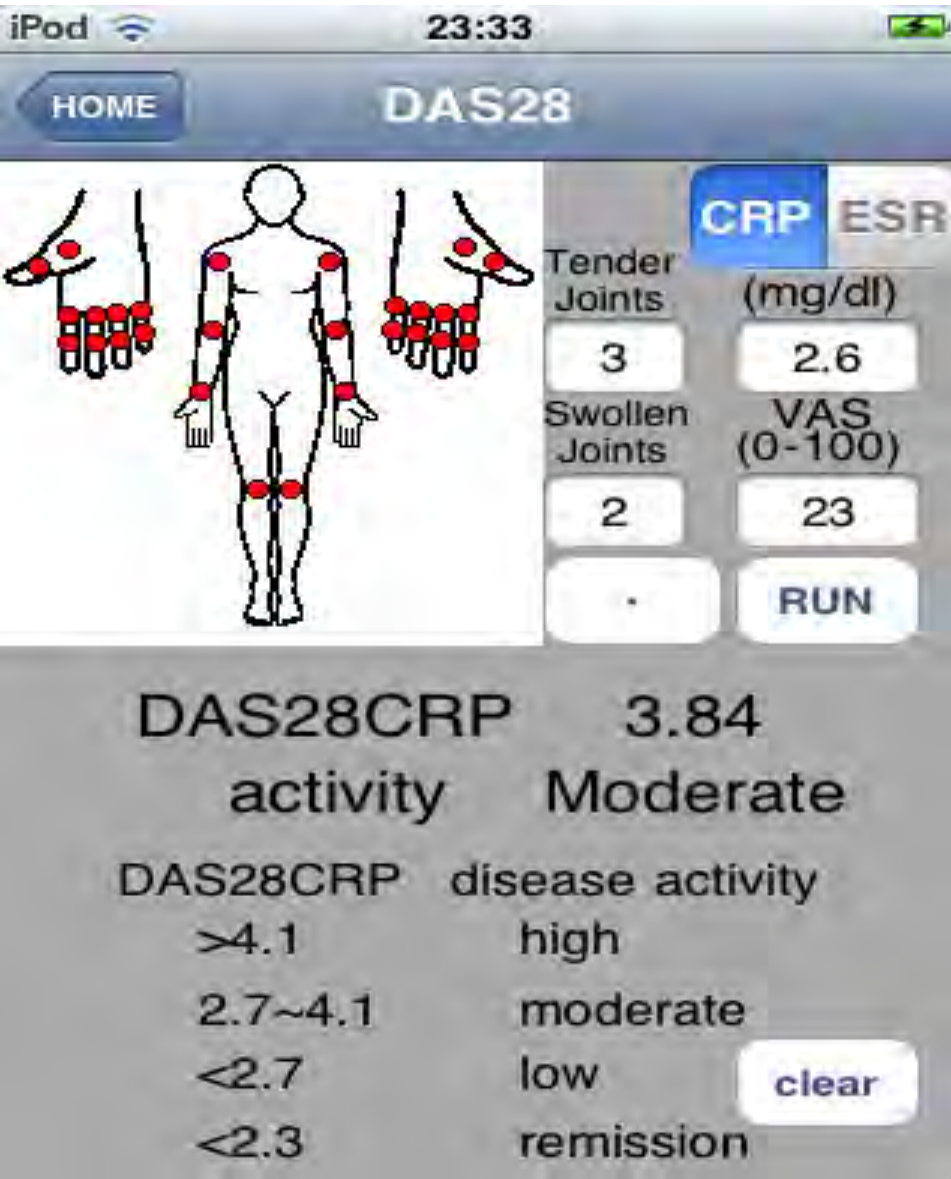


Figure 1. Représentation schématique des 28 articulations évaluées dans le DAS28

★ **Simple Disease Activity Index (SDAI) for Rheumatoid Arthritis**

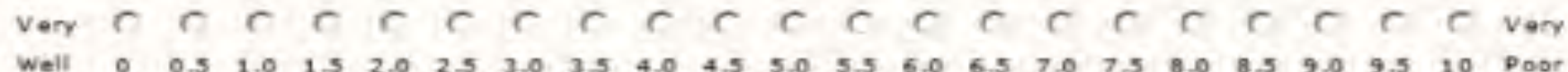


Tender Joint Count:

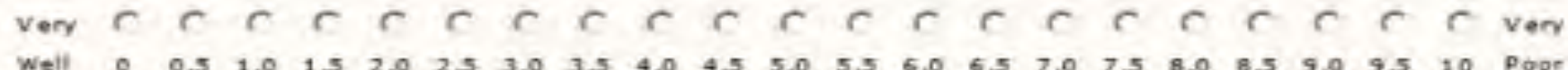
Swollen Joint Count:

CRP: mg/dL

Ask the patient: Considering all the ways arthritis affects you, how well are you doing?



Per medical opinion: Considering all the ways arthritis affects the patient, how well are they doing?



Score:

Interpretation:

- Interpretation Ranges:**
- Remission (≤ 3.3)
 - Low Disease Activity (>3.3 and ≤ 11)
 - Moderate Disease Activity (>11 and ≤ 26)
 - High Disease Activity (>26)

Add to Chart

Calculate

Clinical Disease Activity Index (CDAI)

Joint	Left		Right	
	Tender	Swollen	Tender	Swollen
Shoulder				
Elbow				
Wrist				
MCP 1				
MCP 2				
MCP 3				
MCP 4				
MCP 5				
PIP 1				
PIP 2				
PIP 3				
PIP 4				
PIP 5				
Knee				
Total	Tender:		Swollen:	



Patient Global Assessment of Disease Activity

Considering all the ways your arthritis affects you, rate how well you are doing on the following scale:

Very Well 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10 Very Poor

Your Name _____ Date of Birth _____ Today's Date _____

Provider Global Assessment of Disease Activity

Very Well 0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10 Very Poor

How to Score the CDAI

Variable	Range	Value
Tender joint score	(0-28)	
Swollen joint score	(0-28)	
Patient global score	(0-10)	
Provider global score	(0-10)	
Add the above values to calculate the CDAI score	(0-76)	

CDAI Score Interpretation	
0.0 – 2.8	Remission
2.9 – 10.0	Low Activity
10.1 – 22.0	Moderate Activity
22.1 – 76.0	High Activity

Table 6
Cutoff points of the combined disease activity indices according to RA activity

Index	Disease activity status	Cutoff points
SDAI	Remission	≤ 5
	Low	> 5 and ≤ 20
	Moderate	> 20 and ≤ 40
	High	> 40
CDAI	Remission	≤ 2.8
	Low	≤ 10
	Moderate	> 10 and ≤ 22
	High	> 22
DAS28	Remission	≤ 2.6
	Low	> 2.6 and ≤ 3.2
	Moderate	> 3.2 and ≤ 5.1
	High	> 5.1

SDAI: Simplified Disease Activity Index; CDAI: Clinical Disease Activity Index; DAS28: Disease Activity Score (28 joints); modified from Aletaha *et al.*³³

Health-related quality of life (HR-QOL) assessments in RA

- Health Assessment Questionnaire Disability Index (HAQ-DI)^{1,2}:
 - Assessment of functional disability
 - Scale of 20 activities of daily living (ADL) in 8 categories
 - Dressing, arising, eating, walking, bathing, reaching, gripping, performing errands
 - Scaled from 0 (without any difficulty) to 3 (unable to do)
 - Total HAQ score = mean score derived from 8 scores + VAS assessment of pain and global status
 - Modifications of HAQ have been developed for ease of scoring in standard clinical care
 - Multidimensional HAQ (MDHAQ)
 - 13 items: 10 concerning physical function and 3 concerning sleep, anxiety and depression
 - VAS for pain, global status and fatigue, length of morning stiffness and change in status
- Short-Form 36 (SF-36)¹:
 - Evaluation of health status
 - 8 scales: physical functioning, role limitations due to physical health, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional health and mental health
 - 2 summary scores for physical and mental components
- Medical Outcomes Study (MOS) sleep scale³:
 - 12-Item self-report measuring specific aspects of sleep
- Functional Assessment of Chronic Illness Therapy-Fatigue scale (FACIT-Fatigue)⁴

¹Russell A. Pharmacoeconomics 2008;26(10):831-846

²Pincus T. Bull NYU Hosp Jt Dis 2006;64(1-2):32-39

³Hays RD and Stewart AL. Durham NC, Duke University Press 1992;235-259

⁴<http://www.facit.org>

THE HEALTH ASSESSMENT QUESTIONNAIRE

(HAQ)

Σημειώστε την απάντηση που περιγράφει καλύτερα την συνήθη ικανότητά σας **ΚΑΤΑ ΤΗΝ ΠΕΡΑΣΜΕΝΗ ΕΒΔΟΜΑΔΑ; (HAQ)**

Μπορείτε να:

-Ντυθείτε μόνος/η, να δέσετε τα κορδόνια σας και να κουμπωθείτε;

-Ξαπλώσετε και να σηκωθείτε από το κρεβάτι;

-Σηκώσετε ένα γεμάτο φλιτζάνι στο στόμα σας;

-Περπατήσετε σε επίπεδο έδαφος;

-Πλύνετε και σκουπίσετε το σώμα σας;

-Σκύψετε για να πάρετε ένα ρούχο από το πάτωμα;

-Ανοίξετε και να κλείσετε τις βρύσες;

-Μπείτε και να βγείτε από το αυτοκίνητο;

Χωρίς ΚΑΜΙΑ
δυσκολία (0)

Με ΜΙΚΡΗ
δυσκολία (1)

Με ΜΕΓΑΛΗ
δυσκολία(2)

ΑΝΪΚΑΝΟΣ να
το κάνω (3)

Ακολουθεί βοήθημα για τον υπολογισμό του HAQ ανάλογα της συνολικής βαθμολογίας:
π.χ. αν σύνολο=10 → HAQ=1,25, αν σύνολο 21→ HAQ= 2,63

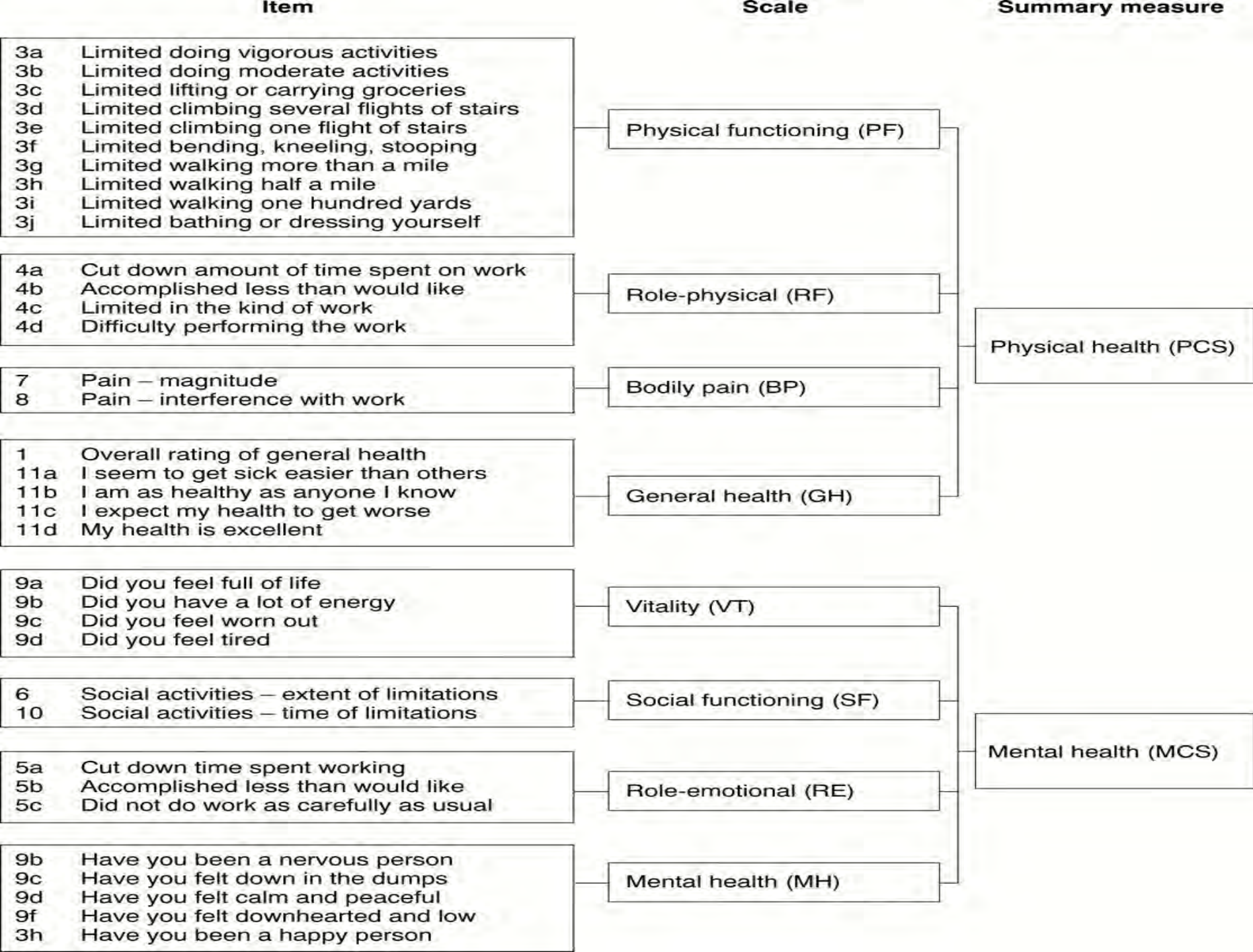
ΣΥΝΟΛΟ:

1/0,13 2/0,25 3/0,38 4/0,5 5/0,63 6/0,75 7/0,88 8/1,0 9/1,13 10/1,25 11/1,38
12/1,5 13/1,63 14/1,75 15/1,88 16/2,0 17/2,13 18/2,25 19/2,38 20/2,5 21/2,63

HAQ:

Content of the SF-36 Health Survey

Label	SF-36 QUESTIONS
GH1	1. In general, would you say your health is:
HT	2. Compared to one year ago, how would you rate your health in general now?
	3. The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?
PF01	a. Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports
PF02	b. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf
PF03	c. Lifting or carrying groceries
PF04	d. Climbing several flights of stairs
PF05	e. Climbing one flight of stairs
PF06	f. Bending, kneeling, or stooping
PF07	g. Walking more than a mile
PF08	h. Walking several blocks
PF09	i. Walking one block
PF10	j. Bathing or dressing yourself
	4. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?
RP1	a. Cut down on the amount of time you spent on work or other activities
RP2	b. Accomplished less than you would like
RP3	c. Were limited in the kind of work or other activities.
RP4	d. Had difficulty performing the work or other activities (for example, it took extra effort)
	5. During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?
RE1	a. Cut down on the amount of time you spent on work or other activities
RE2	b. Accomplished less than you would like
RE3	c. Didn't do work or other activities as carefully as usual
SF1	6. During the past 4 weeks, to what extent has your physical health or emotional problems interfered



SF-36 variables	Number of items
A. Functional ability	
Physical functioning	10
Social functioning	2
Role limitations attributed to physical problems	4
Role limitations attributed to emotional problems	3
B. Well-being	
Mental health	5
Energy and fatigue	4
Pain	2
C. Overall health	
General health perception	5
Total	35

EQ 5D

Under each heading, please tick the **ONE** box that best describes your health **TODAY**.

MOBILITY

- I have no problems in walking about
- I have slight problems in walking about
- I have moderate problems in walking about
- I have severe problems in walking about
- I am unable to walk about

SELF-CARE

- I have no problems washing or dressing myself
- I have slight problems washing or dressing myself
- I have moderate problems washing or dressing myself
- I have severe problems washing or dressing myself
- I am unable to wash or dress myself

USUAL ACTIVITIES (e.g., work, study, housework, family or leisure activities)

- I have no problems doing my usual activities
- I have slight problems doing my usual activities
- I have moderate problems doing my usual activities
- I have severe problems doing my usual activities
- I am unable to do my usual activities

PAIN/DISCOMFORT

- I have no pain or discomfort
- I have slight pain or discomfort
- I have moderate pain or discomfort
- I have severe pain or discomfort
- I have extreme pain or discomfort

ANXIETY/DEPRESSION

- I am not anxious or depressed
- I am slightly anxious or depressed
- I am moderately anxious or depressed
- I am very anxious or depressed
- I am extremely anxious or depressed

The best health you can imagine

1. We like to know how is your health today.

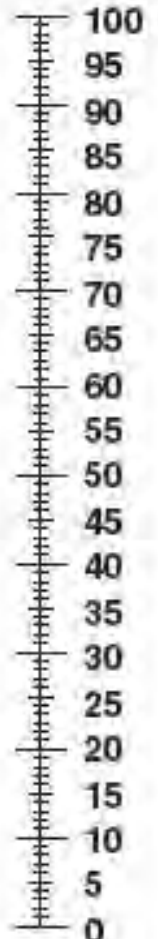
2. This scale is marked from 0 to 100.

3. 100 means the best health you can imagine.
0 means the worst health you can imagine.

4. Mark an X on the scale to indicate how is your health today.

5. Now, please note the number you marked on the scale in the box below.

Your Health Today =



The worst health you can imagine

Figure 1 – EuroQOL-5 Dimensions score. To the left, the descriptive system that defines the health-related quality of life in five dimensions (HRQoL) and to the right, the visual scale in which the patients indicate the perception of their health status (Visual Analog Scale – VAS).



I feel like
I've been hit
by a bus



ΘΕΡΑΠΕΙΑ ΡΑ

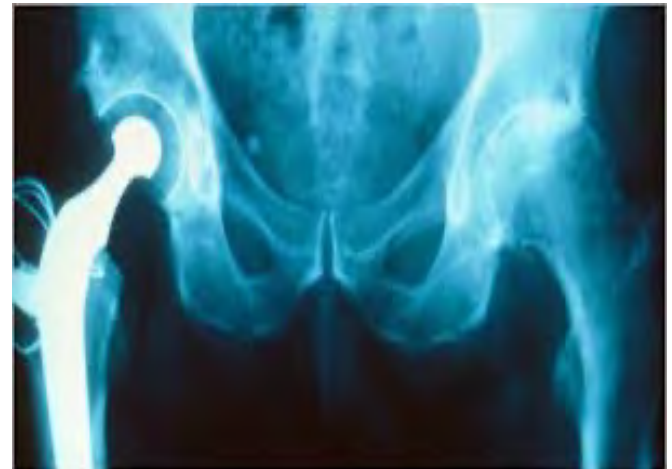
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- ΥΠΟΣΤΗΡΙΚΤΙΚΗ

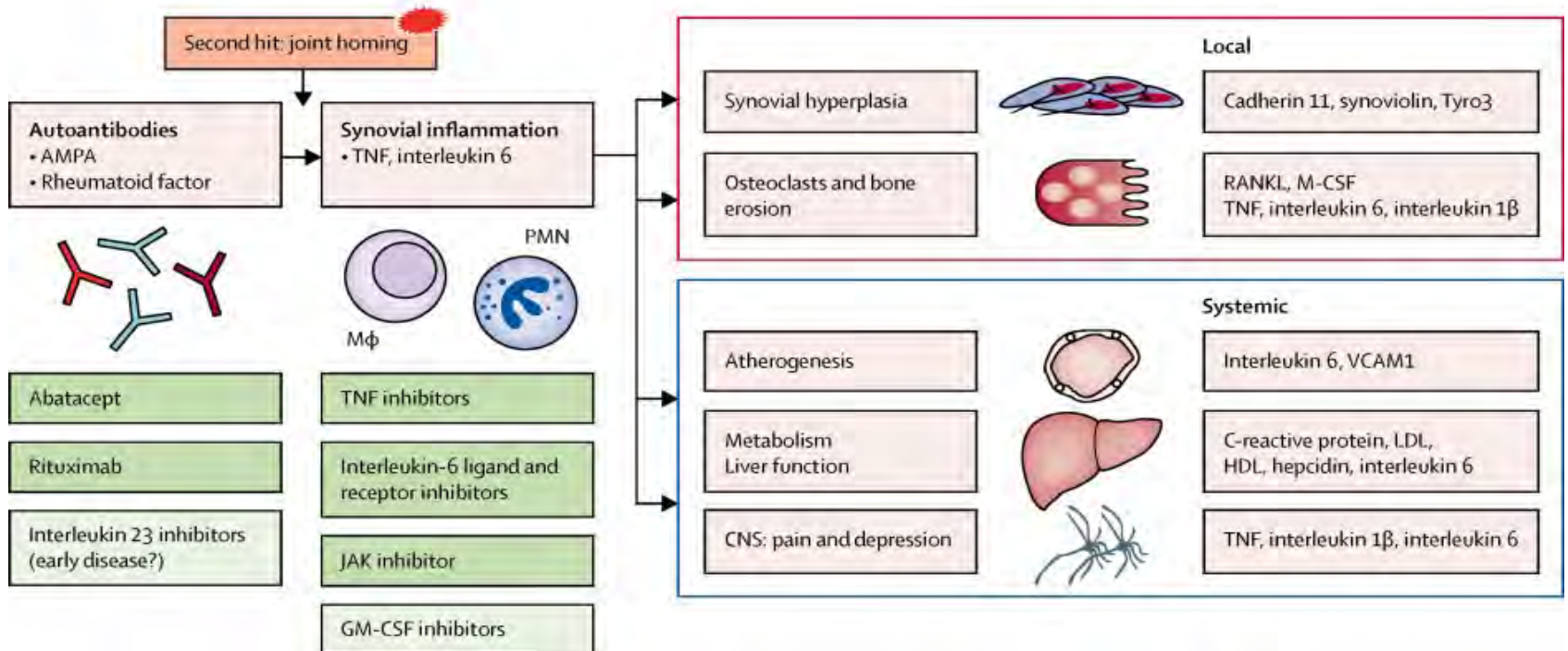
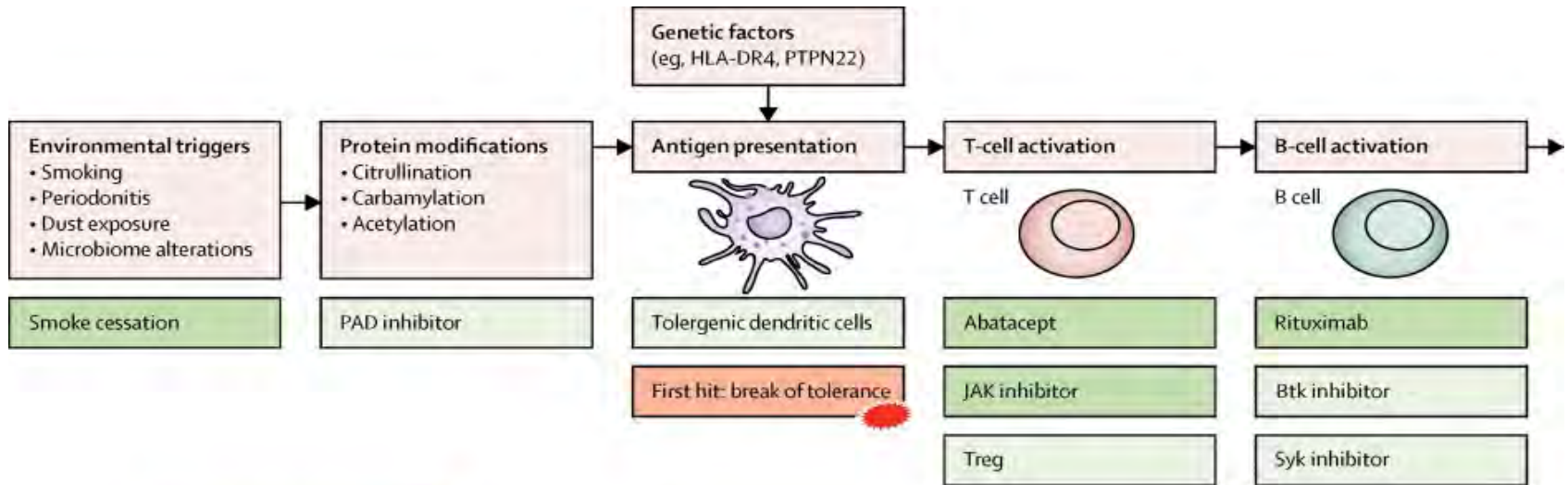
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ΕΡΓΟΘΕΡΑΠΕΙΑ

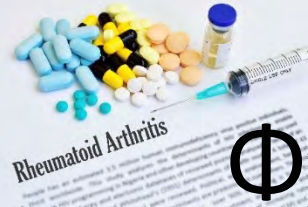
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ΕΝΔΑΡΘΡΙΚΕΣ ΕΓΧΥΣΕΙΣ
ΧΕΙΡΟΥΡΓΙΚΗ

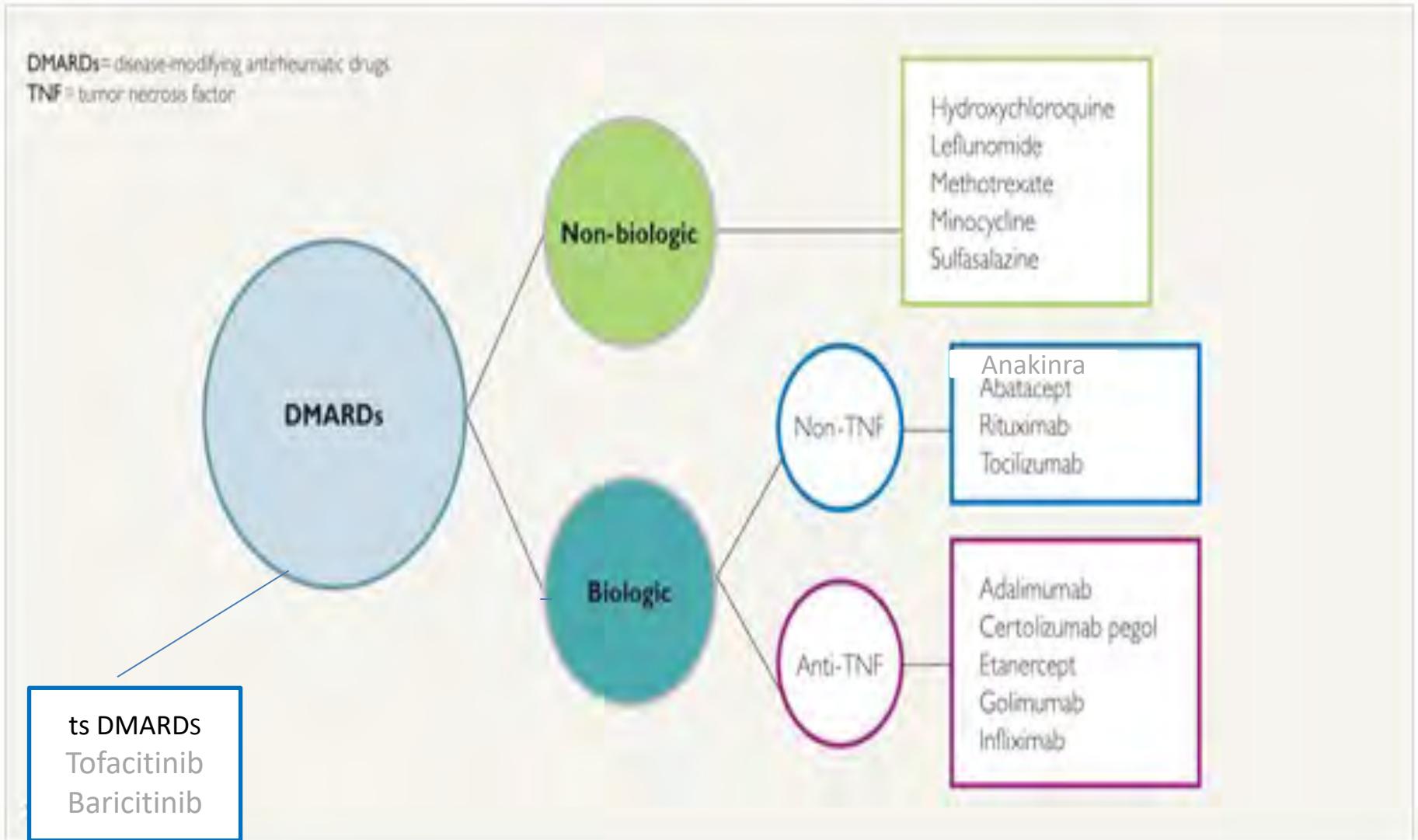


ΦΑΡΜΑΚΕΥΤΙΚΗ ΘΕΡΑΠΕΙΑ ΡΑ(1)



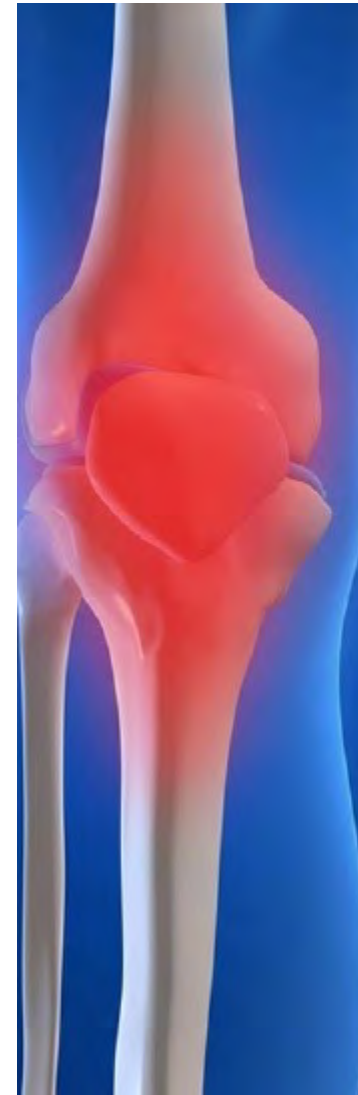
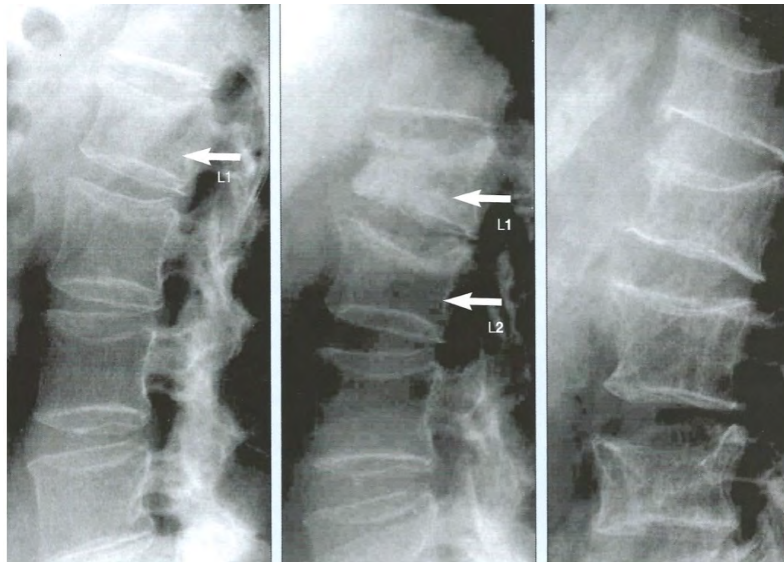


ΦΑΡΜΑΚΕΥΤΙΚΗ ΘΕΡΑΠΕΙΑ ΡΑ(2)



ΕΠΙΠΛΟΚΕΣ ΡΑ

- ΡΗΞΗ ΤΕΝΟΝΤΩΝ
- ΣΗΠΤΙΚΗ ΑΡΘΡΙΤΙΔΑ
- ΛΟΙΜΩΞΕΙΣ
- ΝΕΥΡΟΛΟΓΙΚΕΣ ΕΠΙΠΛΟΚΕΣ
- ΕΠΙΠΛΟΚΕΣ ΑΠΟ ΤΗΝ ΙΔΙΑ ΤΗΝ ΑΓΩΓΗ ΤΟΥ
- ΟΣΤΕΟΠΟΡΩΣΗ
- ΚΑΤΑΘΛΙΨΗ
- ΑΜΥΛΟΕΙΔΩΣΗ



ΕΠΙΠΤΩΣΕΙΣ ΡΑ

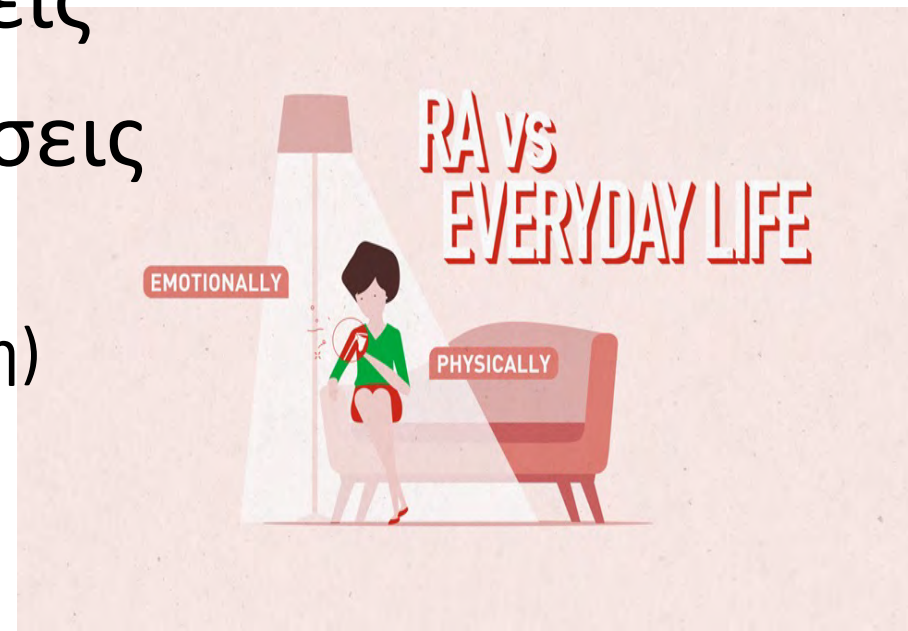
- Προκαλεί καταστροφή των αρθρώσεων-
μείωση λειτουργικότητας των ασθενών-
σημαντική αναπηρία-νοσηρότητα και
θνητότητα





ΕΠΙΠΤΩΣΕΙΣ ΡΑ

- ❑ Ατομικές επιπτώσεις
- ❑ Οικογενειακές επιπτώσεις
- ❑ Κοινωνικές επιπτώσεις
- ❑ Οικονομικές επιπτώσεις
(Κόστος Θεραπείας /
Χειρουργική Αποκατάσταση)







QUESTIONS?????

