



ΘΑΝΟΣ ΚΟΥΤΡΟΥΜΠΑΣ
ΡΕΥΜΑΤΟΛΟΓΟΣ, ΒΟΛΟΣ

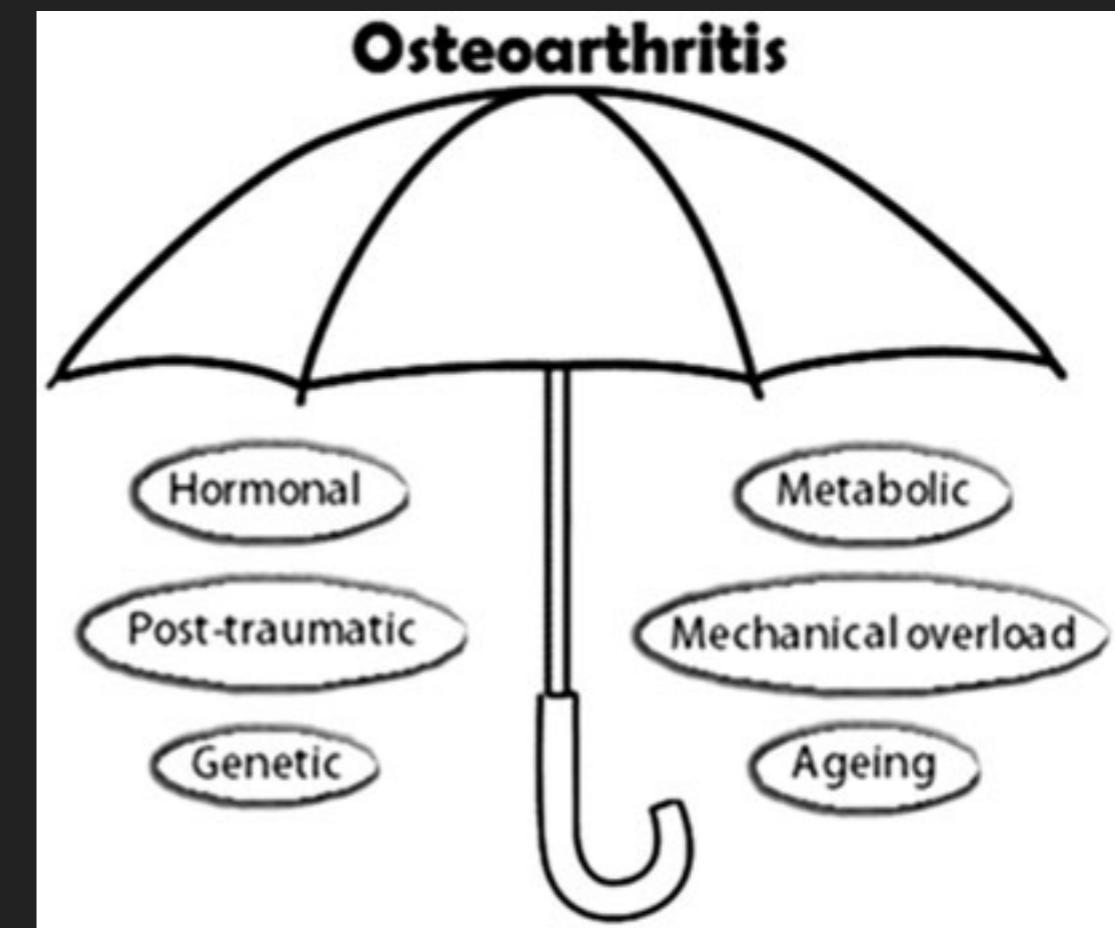
2019 AMERICAN COLLEGE OF RHEUMATOLOGY/ ARTHRITIS
FOUNDATION GUIDELINE FOR THE MANAGEMENT OF OSTEOARTHRITIS
OF THE HAND, HIP AND KNEE

ΜΕΘΟΔΟΛΟΓΙΚΕΣ ΔΥΣΚΟΛΙΕΣ

- ▶ Υψηλός κίνδυνος μεροληψίας (δημοσίευσης, χρηματοδότηση)
- ▶ Σχεδιασμός μελέτης (ομάδα εικονικού φαρμακου, δείγμα, διάρκεια μελέτης)
- ▶ Placebo effect
- ▶ Το στατιστικά σημαντικό δεν είναι πάντα και κλινικά σημαντικό
- ▶ Παθοφυσιολογική ποικιλία
- ▶ Ποικιλία και ομοιογένεια των παρεμβάσεων

IS OA ONE DISEASE?

- ▶ Genetics
- ▶ Phenotypes
- ▶ Predisposing factors
- ▶ Treatment response



IS OA ONE DISEASE?

GENETICS

TABLE 3. Phenotypic, genetic and environmental correlations for OA among the five skeletal sites

	DIP	PIP	CMC	Hip	Knee
Genetic correlation					
DIP	1.000				
PIP	0.230	1.000			
CMC	0.093	0.015	1.000	–	
Hip	0.036	0.081	0.180	1.000	
Knee	−0.008	−0.110	−0.006	−0.039	1.000

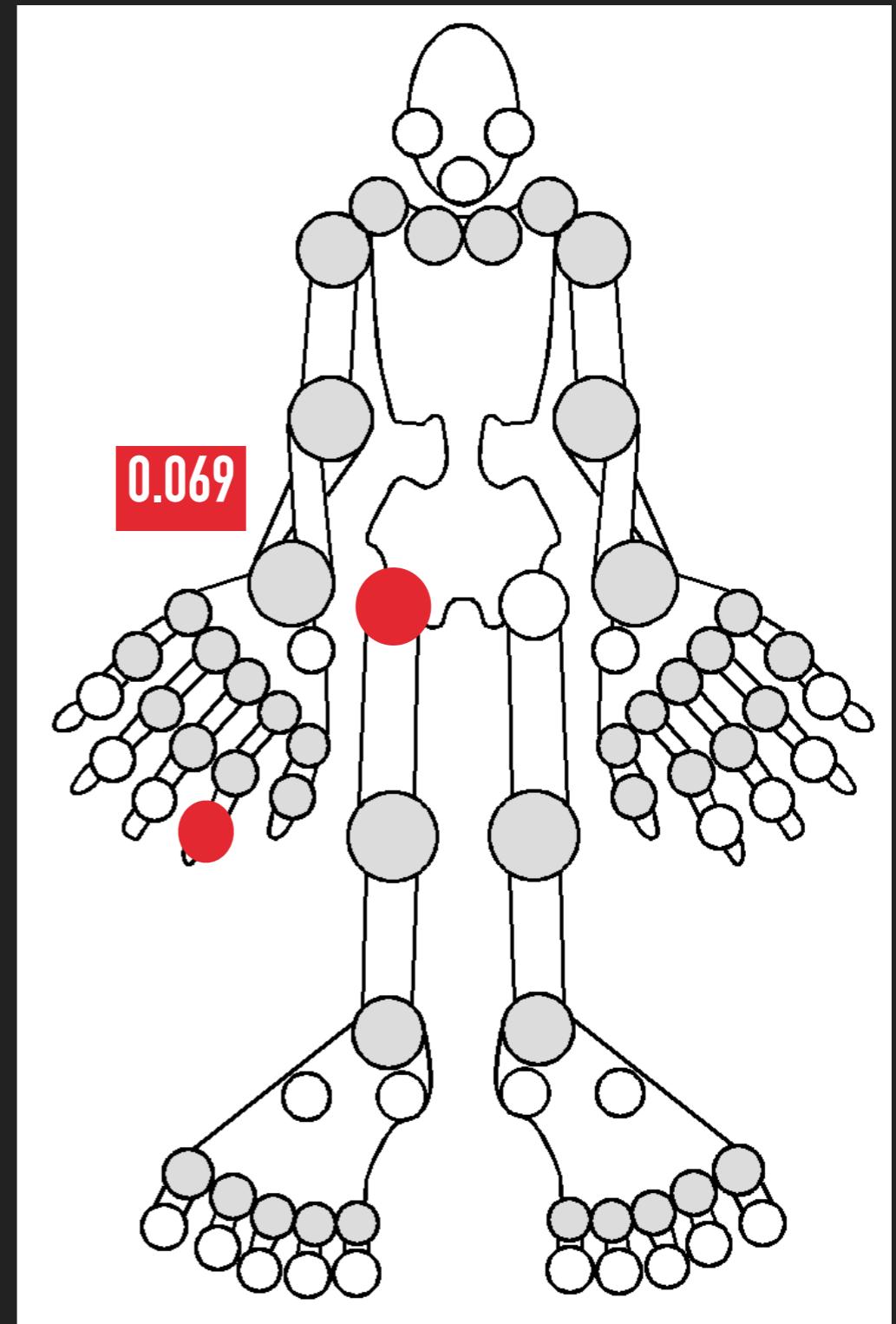
IS OA ONE DISEASE?

PHENOTYPIC VARIATION

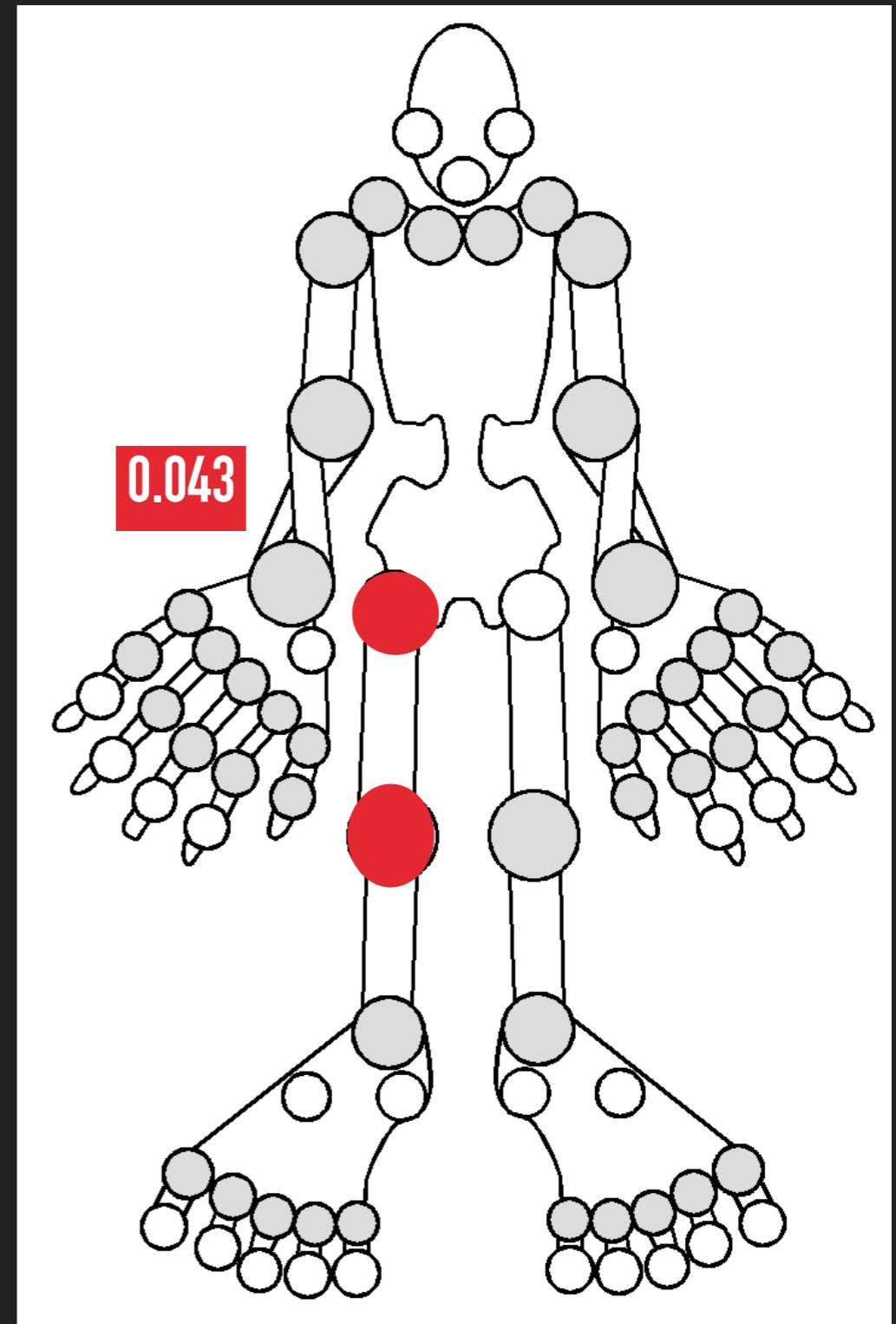
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	DIP	PIP	CMC	Hip	Knee
Phenotypic correlation					
DIP	1.000				
PIP	0.479	1.000			
CMC	0.315	0.201	1.000		
Hip	0.069	0.075	0.034	1.000	
Knee	0.074	0.080	0.079	0.043	1.000

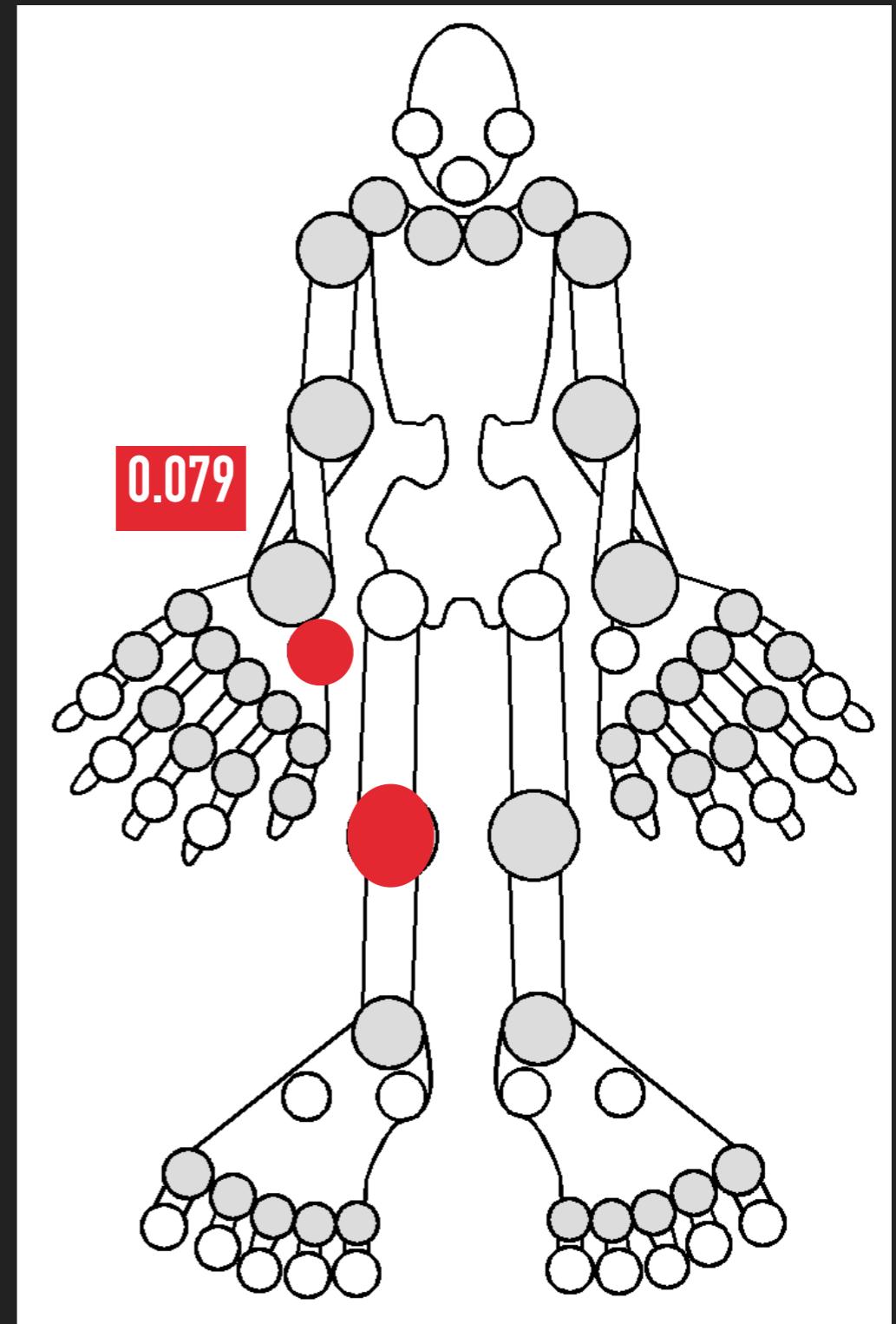
IS OA ONE DISEASE? PHENOTYPIC VARIATION



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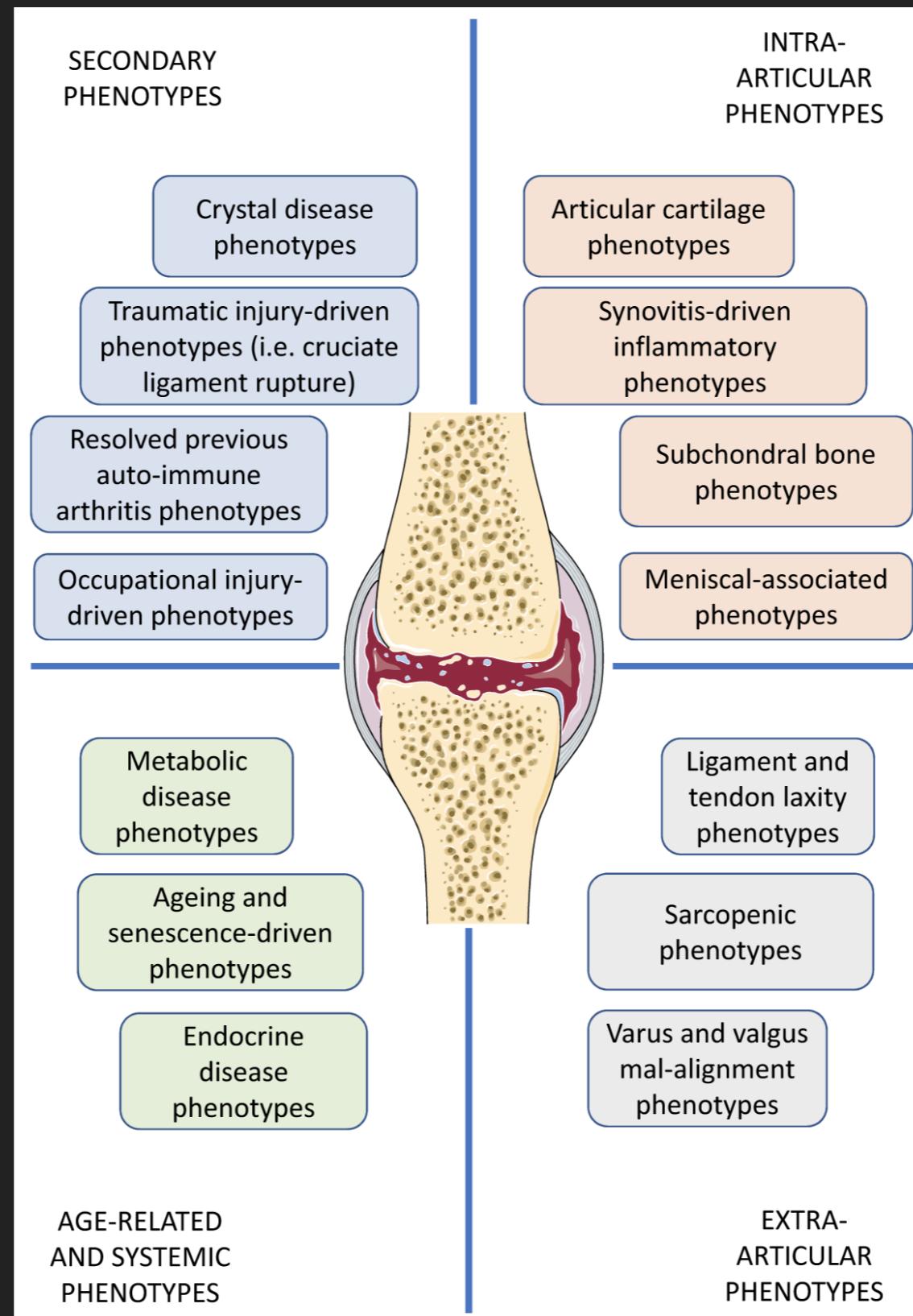


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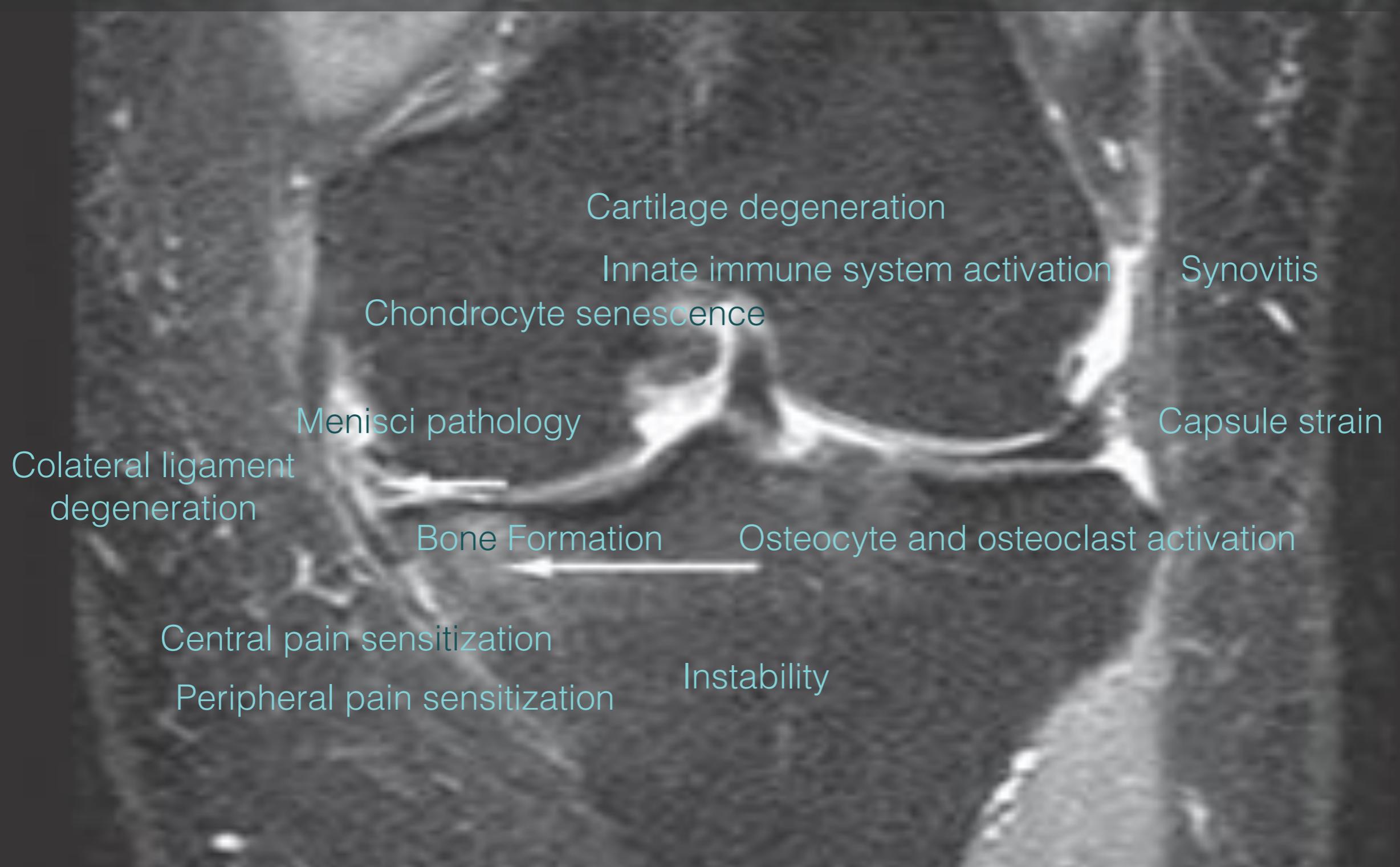


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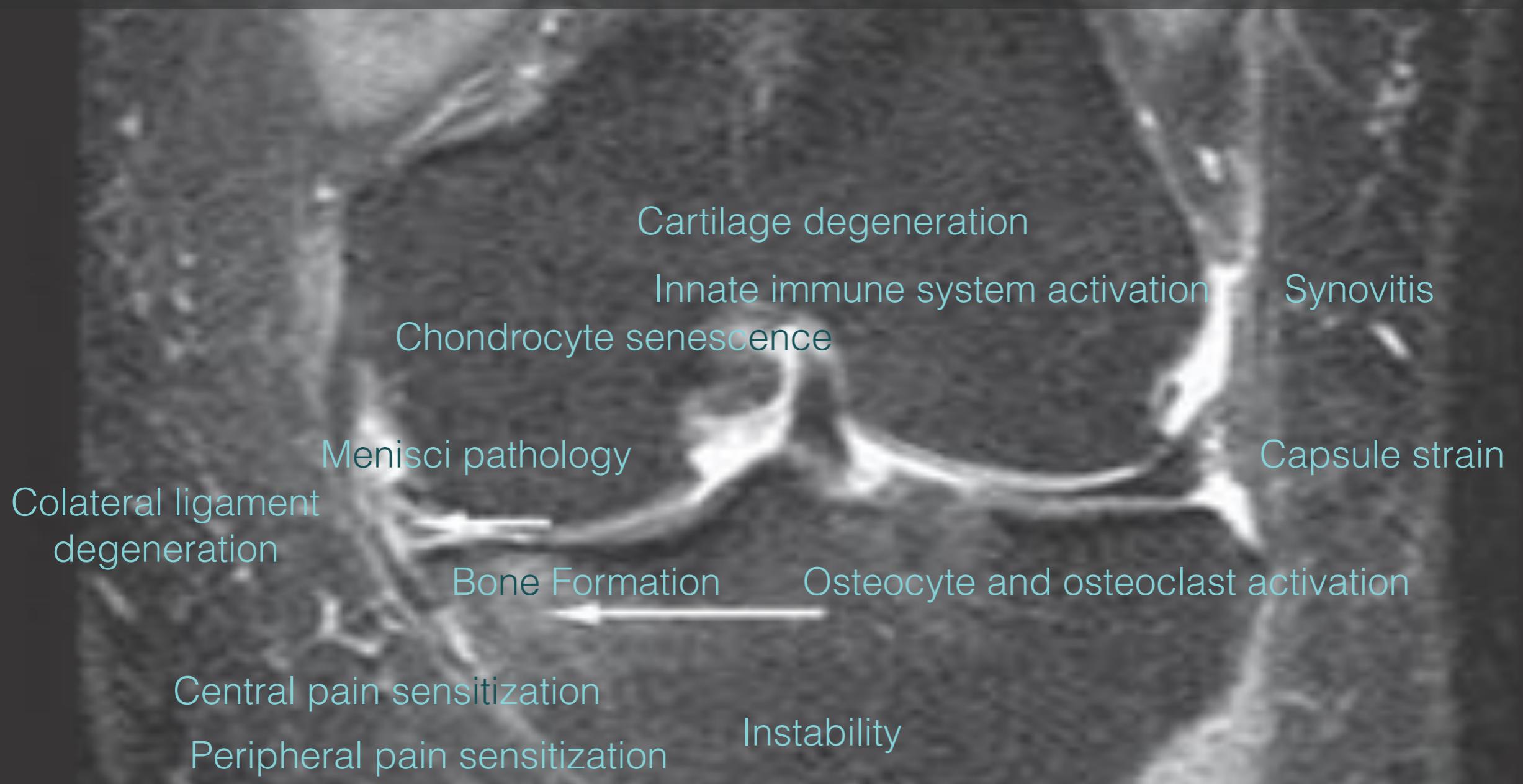
IS OA ONE DISEASE? PHENOTYPIC VARIATION



OA: πολλαπλοί παθοφυσιολογικοί μηχανισμοί

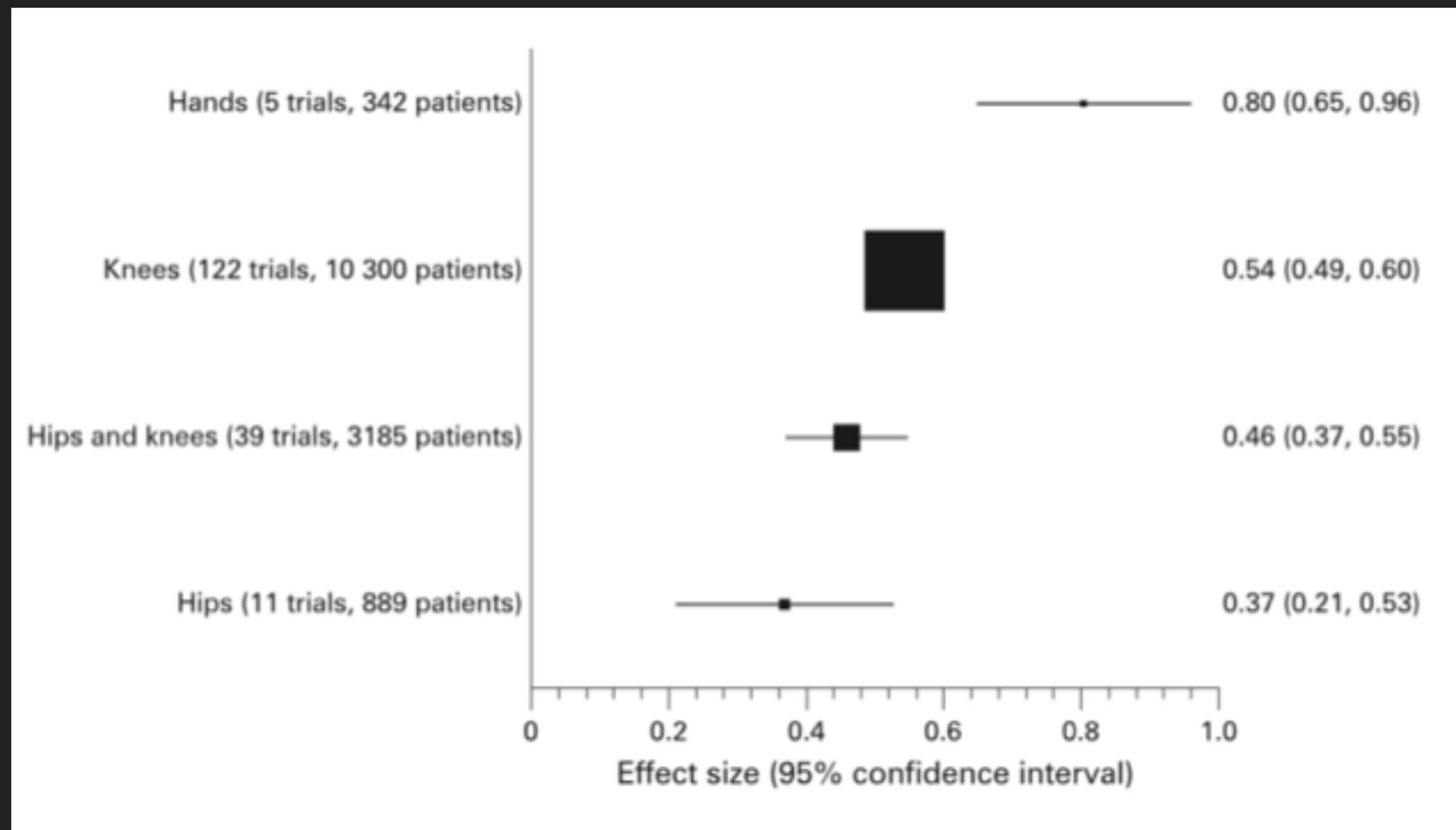


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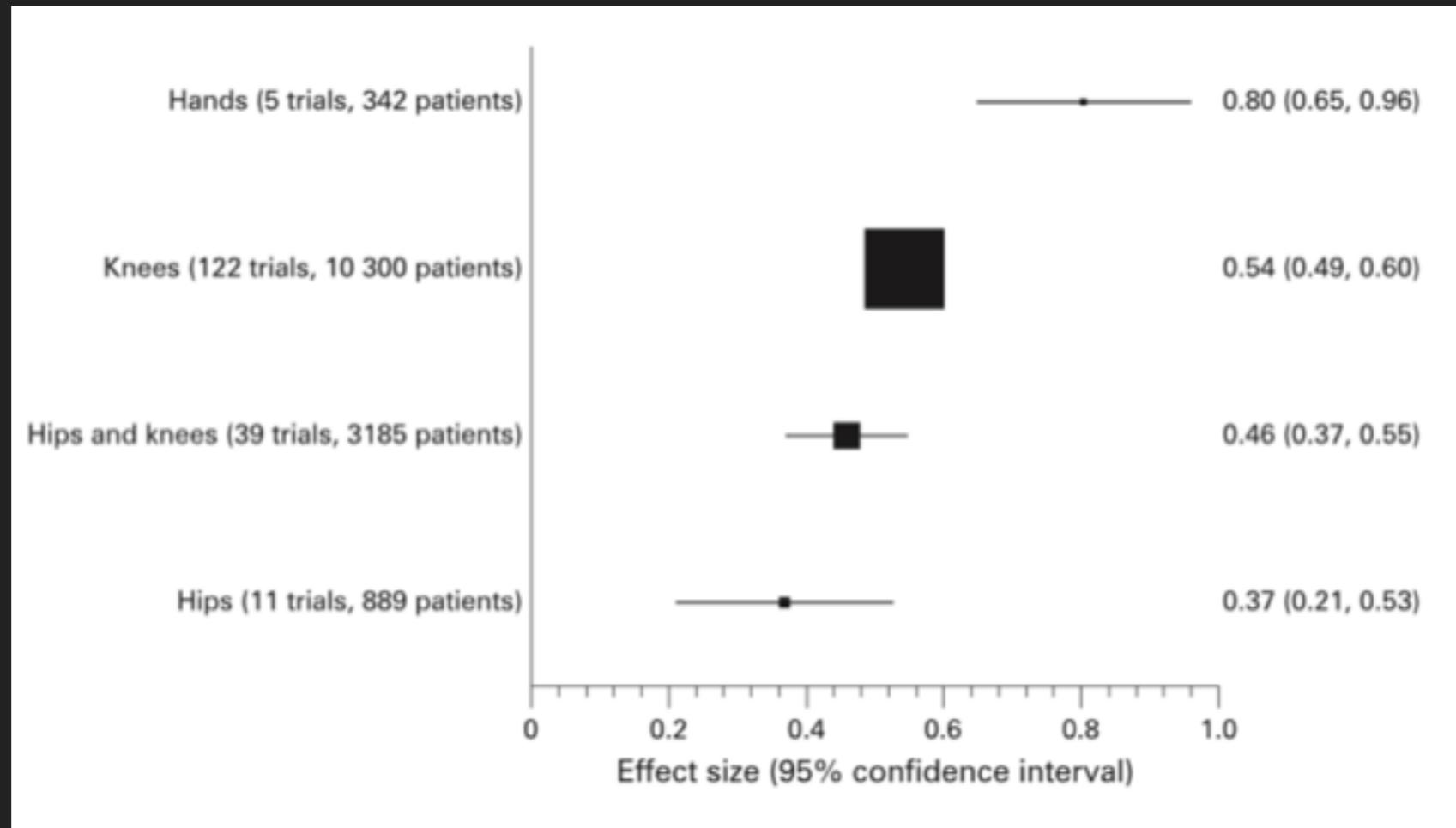
Διαφορετικοί παθοφυσιολογικοί μηχανισμοί μπορεί να αποδίδουν διαφορετικούς φαινότυπους

PLACEBO EFFECT ΣΤΙΣ ΜΕΛΕΤΕΣ ΤΗΣ OA



PLACEBO EFFECT ΣΤΙΣ ΜΕΛΕΤΕΣ ΤΗΣ OA

PARACETAMOL, ES 0.18
NSAIDS, ES 0.37



The NEW ENGLAND
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ESTABLISHED IN 1812

FEBRUARY 23, 2006

VOL. 354 NO. 8

**Glucosamine, Chondroitin Sulfate, and the Two in Combination
for Painful Knee Osteoarthritis**

Daniel O. Clegg, M.D., Domenic J. Reda, Ph.D., Crystal L. Harris, Pharm.D., Marguerite A. Klein, M.S.,
James R. O'Dell, M.D., Michele M. Hooper, M.D., John D. Bradley, M.D., Clifton O. Bingham III, M.D.,
Michael H. Weisman, M.D., Christopher G. Jackson, M.D., Nancy E. Lane, M.D., John J. Cush, M.D.,
Larry W. Moreland, M.D., H. Ralph Schumacher, Jr., M.D., Chester V. Oddis, M.D., Frederick Wolfe, M.D.,
Jerry A. Molitor, M.D., David E. Yocum, M.D., Thomas J. Schnitzer, M.D., Daniel E. Furst, M.D., Allen D. Sawitzke, M.D.,
Helen Shi, M.S., Kenneth D. Brandt, M.D., Roland W. Moskowitz, M.D., and H. James Williams, M.D.

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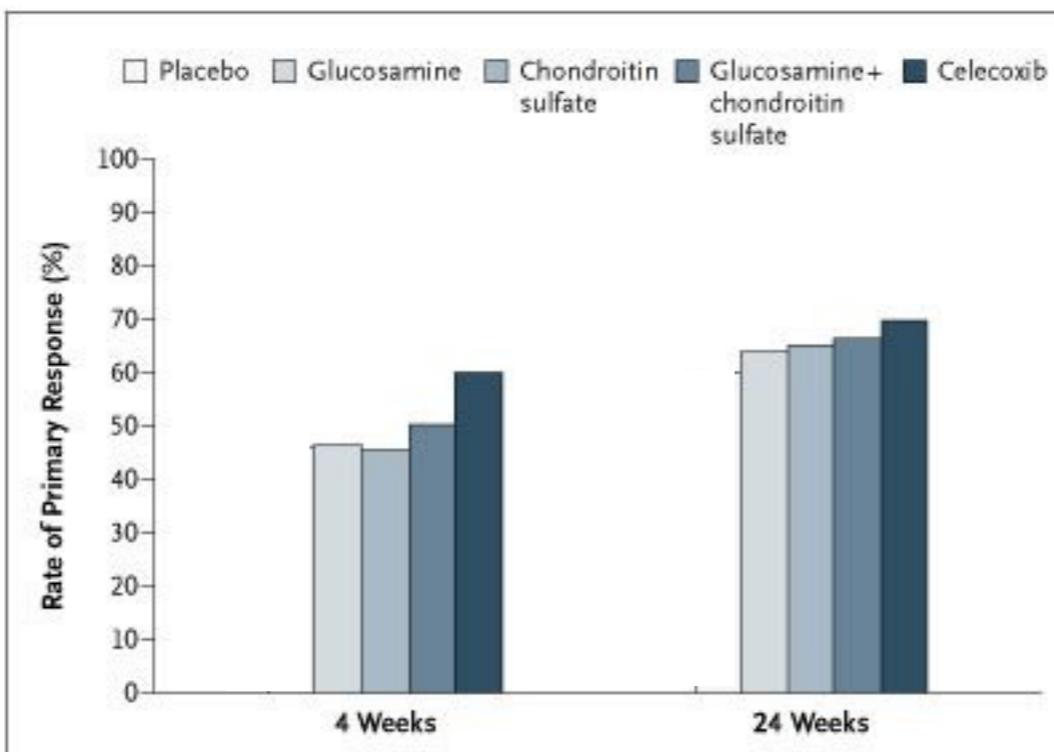
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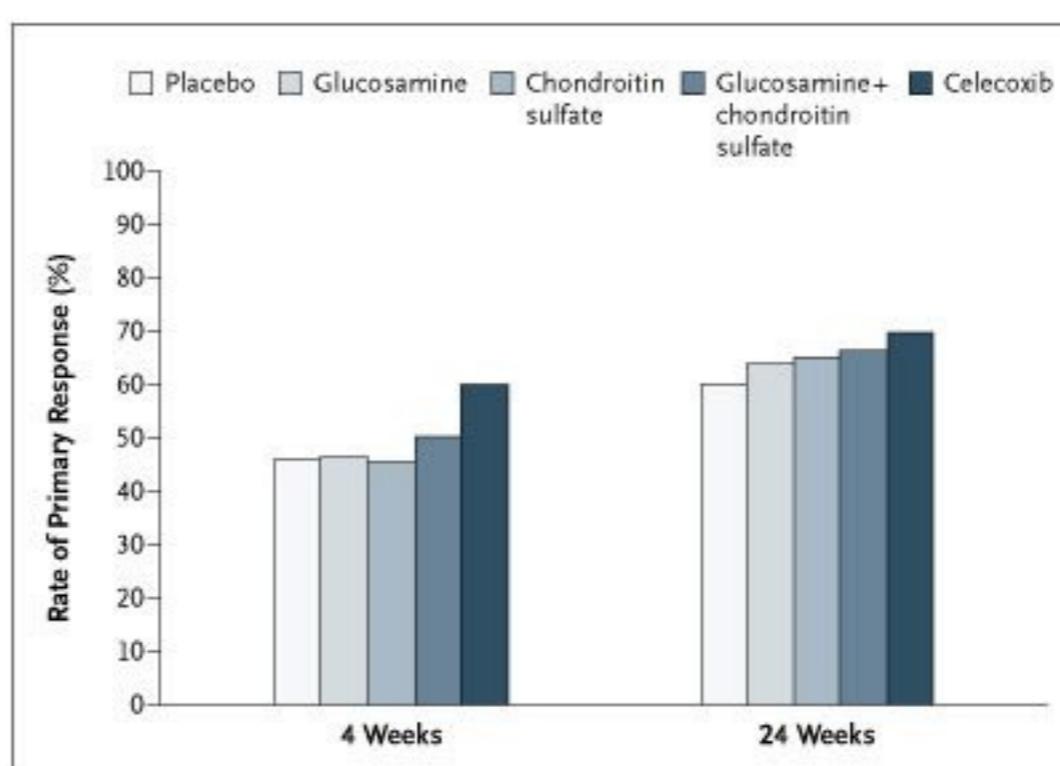
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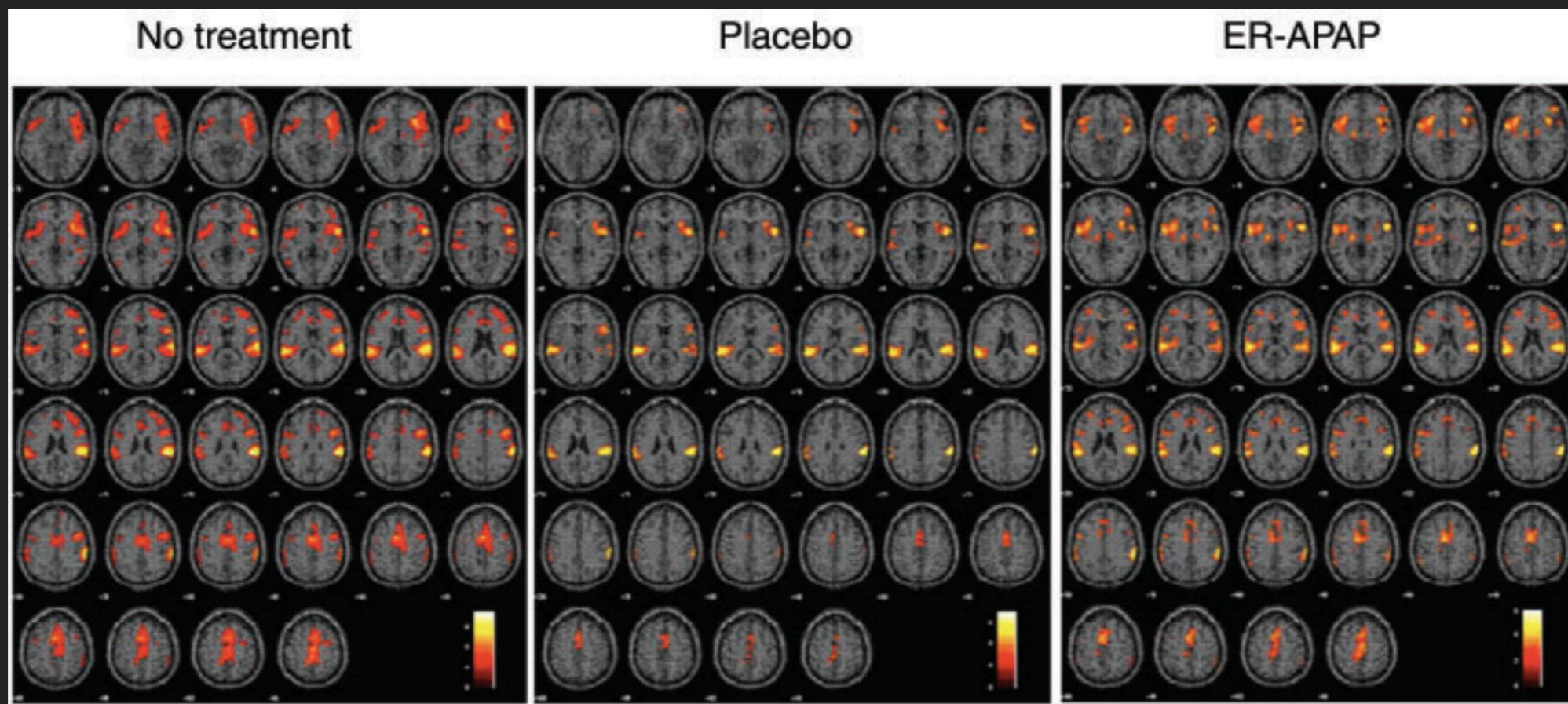
ALL PLACEBOS ARE NOT CREATED EQUAL...

Intra-articular placebos, Effect size 0.29

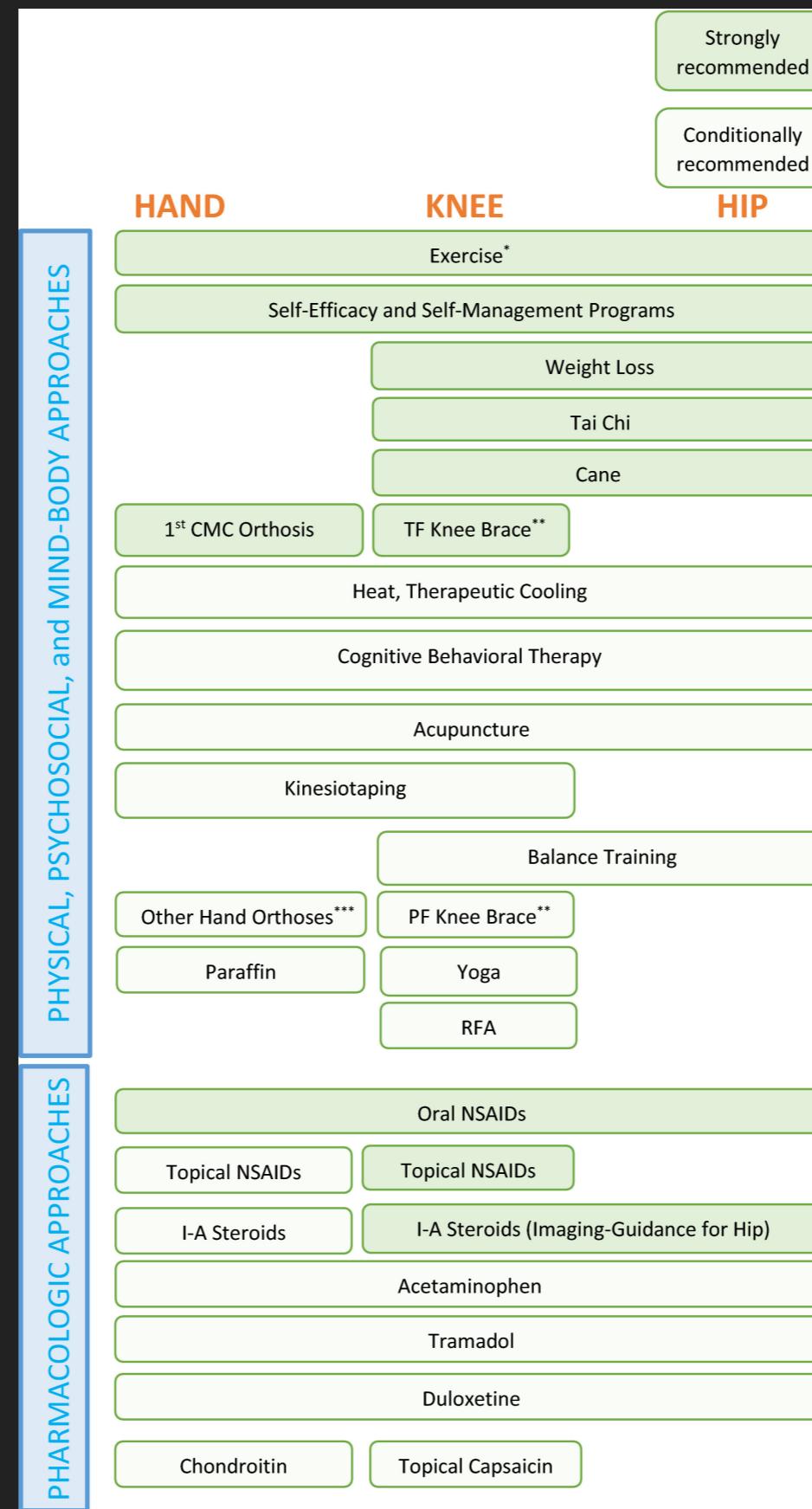
Topical placebos, Effect size 0.20

Oral placebos, Effect size 0.12

PLACEBO EFFECT IN OA



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A

PHYSICAL, PSYCHOSOCIAL, and MIND-BODY APPROACHES

HAND

KNEE

HIP

Strongly
Against

Conditionally
Against

TENS

Iontophoresis

Manual Therapy (with or without exercise)

Massage Therapy

Modified Shoes

Wedged Insoles

Pulsed Vibration
Therapy

B

HAND

KNEE

HIP

PHARMACOLOGIC APPROACHES

Bisphosphonates

Glucosamine

Hydroxychloroquine

Methotrexate

TNF Inhibitors

IL-1 Receptor Antagonists

PRP

Stem Cell Injection

Chondroitin

Chondroitin

Intra-Articular Hyaluronic Acid

I-A Hyaluronic Acid

Intra-Articular Botulinum Toxin

Topical Capsaicin

Prolotherapy

Colchicine

Non-Tramadol Opioids

Fish Oil

Vitamin D

ΑΣΚΗΣΗ

Ισχυρή συσταση

ΟΑ γονατών και ισχίων και λιγότερο χεριών

Βελτίωση πόνου και λειτουργικότητας

Καμία σύσταση για τύπο, ενταση, διάρκεια και συχνότητα

Σημαντικό: προτιμηση του ασθενούς, πρόσβαση

ΑΣΚΗΣΗ

Περπάτημα

Αεροβική γυμναστική

Στατικό ποδήλατο

Ασκήσεις αντίστασης με ιμάντες

Ισομετρικές ασκήσεις

ΑΣΚΗΣΗ

Υπό επίβλεψη

Σε ομάδα

Μαζί με τεχνικές αυτοβελτίωσης

Μαζί με απώλεια βάρους

TREATMENT OPTIONS: WEIGHT LOSS

Table 3. Dose-response effect of weight loss on outcome measures at the 18-month follow-up, according to percent weight loss*

	<5% (n = 74)	≥5% (n = 59)	≥10% (n = 76)	≥20% (n = 31)	P
IL-6, pg/ml	2.84 (2.41, 3.26)	2.52 (2.10, 2.94)	2.65 (2.26, 3.04)	2.27 (1.70, 2.83)	0.017†
Knee compressive force, N	2,750 (2,619, 2,880)	2,611 (2,473, 2,749)	2,444 (2,321, 2,567)	2,200 (2,019, 2,381)	<0.0001
WOMAC pain (range 0–20)	4.46 (3.81, 5.11)	4.60 (3.92, 5.28)	3.71 (3.09, 4.34)	2.79 (1.87, 3.71)	0.006
WOMAC function (range 0–68)	17.13 (15.15, 19.11)	16.73 (14.70, 18.76)	13.57 (11.67, 15.47)	10.84 (8.07, 13.61)	0.0005
6-minute walk distance, meters	508 (496, 520)	522 (510, 534)	542 (530, 553)	559 (543, 576)	<0.0001
SF-36 physical (range 0–100)	42.5 (40.8, 44.2)	43.2 (41.5, 45.0)	44.3 (42.8, 45.9)	48.1 (45.8, 50.4)	0.001
SF-36 mental (range 0–100)	55.4 (53.7, 57.0)	54.6 (52.9, 56.3)	57.5 (56.0, 59.1)	58.1 (55.8, 60.4)	0.02
PASE‡	140 (120, 160)	165 (143, 188)	134 (115, 152)	129 (104, 154)	0.083

* Adjusted for visit, sex, treatment group, baseline body mass index, change in Physical Activity Scale for the Elderly (PASE) scale, and baseline value for outcome. Values are the means (95% confidence intervals). IL-6 = interleukin-6; WOMAC = Western Ontario McMasters Universities Osteoarthritis Index; SF-36 = Short Form 36.

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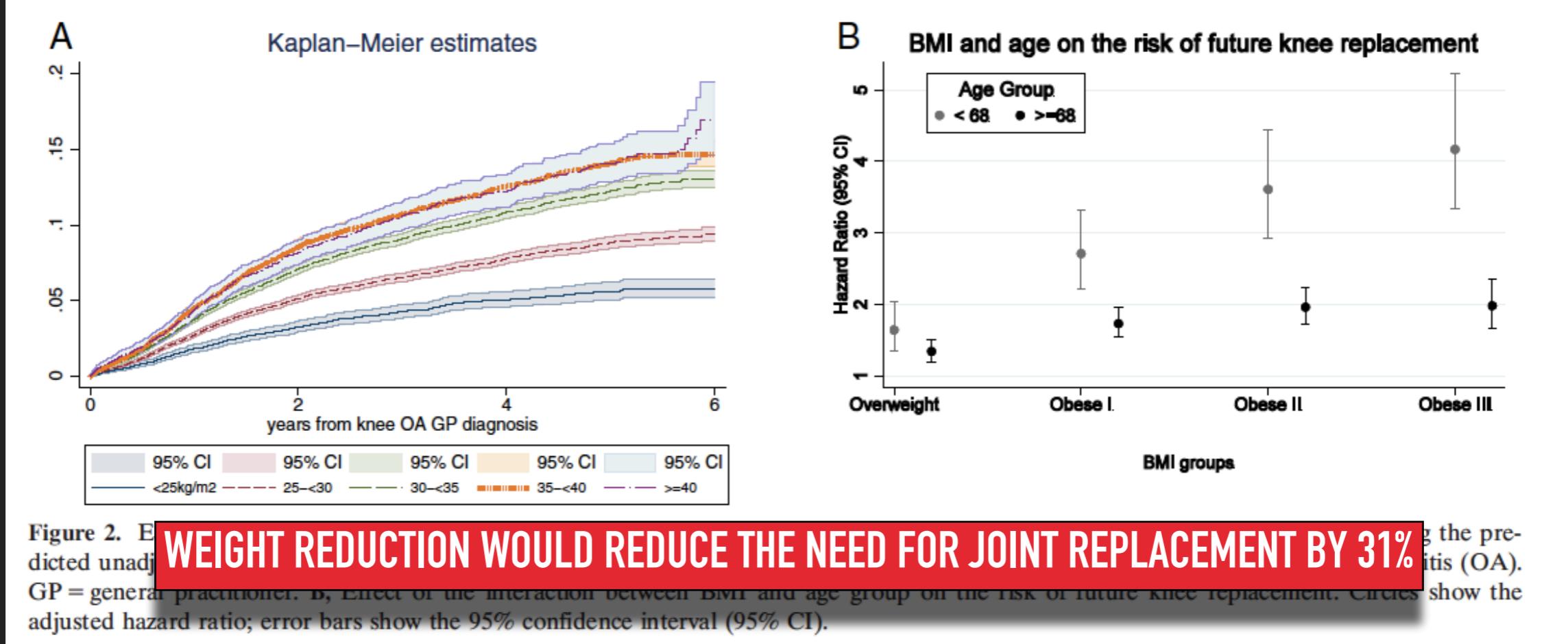
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TREATMENT OPTIONS: WEIGHT LOSS

Disease modification



ΜΗ ΦΑΡΜΑΚΟΛΟΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Ισχυρές συστάσεις (strong recommendations):

Self efficacy & self-management programs

Tai-chi

Συμβατικές συστάσεις (conditional recommendations):

Yoga

Γνωσιακή συμπεριφορική θεραπεία (cognitive behavioral therapy- CBT)

ΜΗ ΦΑΡΜΑΚΟΛΟΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Ισχυρές συστάσεις (strong recommendations):

Μπαστούνι

Νάρθηκας κνημης-μηρού

Kinesiotaping

Ναρθηκες χεριών για την 1 καρπομετακαρπική άρθρωση (βάση του αντίχειρα)

Συμβατικές συστάσεις (conditional recommendations):

Νάρθηκας επιγονατίδομηριαίος

Νάρθηκες χεριών

ΜΗ ΦΑΡΜΑΚΟΛΟΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Συμβατικές συστάσεις (conditional recommendations):

ENANTION

Πάτοι και τροποποιημένα παπούτσια



ΜΗ ΦΑΡΜΑΚΟΛΟΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Συμβατικές συστάσεις (conditional recommendations):

Βελονισμός

Θερμική θεραπεία (θερμό - ψυχρό)

Παραφίνη (OA χεριών)

Ραδιοσυχνότητες (radiofrequency ablation)

ΜΗ ΦΑΡΜΑΚΟΛΟΓΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Συμβατικές συστάσεις (conditional recommendations):

ENANTION

Μασαζ

Manual therapy

Iontophoresis

Pulsed vibration therapy

TENS (strong recommendation)



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Intervention	Joint		
	Hand	Knee	Hip
Exercise			
Balance training			
Weight loss			
Self-efficacy and self-management programs			
Tai chi			
Yoga			
Cognitive behavioral therapy			
Cane			
Tibiofemoral knee braces		(Tibiofemoral)	
Patellofemoral braces		(Patellofemoral)	
Kinesiotaping	(First carpometacarpal)		
Hand orthosis	(First carpometacarpal)		
Hand orthosis	(Other joints)		
Modified shoes			
Lateral and medial wedged insoles			
Acupuncture			
Thermal interventions			
Paraffin			
Radiofrequency ablation			
Massage therapy			
Manual therapy with/without exercise			
Iontophoresis	(First carpometacarpal)		
Pulsed vibration therapy			
Transcutaneous electrical nerve stimulation			

Strongly recommended
Conditionally recommended
Strongly recommended against
Conditionally recommended against
No recommendation

ΤΟΠΙΚΑ ΜΣΑΦ

Πριν τα από του στόματος ΜΣΑΦ

ΟΑ γονάτων (ισχυρή σύσταση)

ΟΑ χεριών (συμβατική σύσταση)

Ασφαλεια έναντι συστηματικών ΜΣΑΦ

ΤΟΠΙΚΑ ΚΑΨΑΙΣΙΝΗ

OA γονάτων

OXI στην OA χεριών

ΑΠΟ ΤΟΥ ΣΤΟΜΑΤΟΣ ΜΣΑΦ

Ισχυρή σύσταση

Παρενεργειες

Εξατομικευμένη προσεγγιση- επιλογη ασθενών- συνοσηρότητες και
αλληλεπιδράσεις φαρμάκων

Ελάχιστη αποτελεσματική δόση- ελάχιστη διάρκεια

ΕΝΔΟΑΡΘΡΙΚΑ ΚΟΡΤΙΚΟΕΙΔΗ

Ισχυρή σύσταση (γονατά)

Ισχυρή σύσταση (στα ισχία υπό απεικονιστική/υπερηχογραφική
καθοδήγηση)

Μέτρια σύσταση (χέρια)

ΕΝΔΟΑΡΘΡΙΚΑ ΚΟΡΤΙΚΟΕΙΔΗ

Ενδοαρθρικά κορτικοειδή εναντί αλλων ενδοαρθρικών ενεσεων
(υαλουρονικού)

ΠΑΥΣΙΠΟΝΑ

Μέτρια σύσταση:

Παρακεταμόλη, τραμαδόλη, ντουλοξετίνη, χονδροιτίνη (χέρια)

Μέτρια σύσταση ENANTION:

Οπιοειδη (πλήν τραμαδόλης), κολχικίνη, ιχθυέλαια, βιταμινη D,
διφωσφονική, γλυκοζαμίνη, χονδροιτίνη (γονάτα και ισχία),
υδροξυχλωροκίνη, μεθοτρεξάτη

ΕΝΔΟΑΡΘΡΙΚΕΣ ΘΕΡΑΠΕΙΕΣ

Υαλουρονικά

Μέτρια σύσταση ENANTION: γονατα και χέρια

Ισχυρή σύσταση ENANTION: ισχία

PRP, stem cells

Ισχυρή σύσταση ENANTION

Prolotherapy

Μέτρια σύσταση ENANTION

ΒΙΟΛΟΓΙΚΕΣ ΘΕΡΑΠΕΙΕΣ

Ισχυρή σύσταση ENANTION:

Αναστολείς TNF

Αναστολείς IL-1

ΦΑΡΜΑΚΕΥΤΙΚΗ ΑΝΤΙΜΕΤΩΠΙΣΗ

Intervention	Joint		
	Hand	Knee	Hip
Topical nonsteroidal antiinflammatory drugs			
Topical capsaicin			
Oral nonsteroidal antiinflammatory drugs			
Intraarticular glucocorticoid injection			
Ultrasound-guided intraarticular glucocorticoid injection			
Intraarticular glucocorticoid injection compared to other injections			
Acetaminophen			
Duloxetine			
Tramadol			
Non-tramadol opioids			
Colchicine			
Fish oil			
Vitamin D			
Bisphosphonates			
Glucosamine			
Chondroitin sulfate			
Hydroxychloroquine			
Methotrexate			
Intraarticular hyaluronic acid injection	(First carpometacarpal)		
Intraarticular botulinum toxin			
Prolotherapy			
Platelet-rich plasma			
Stem cell injection			
Biologics (tumor necrosis factor inhibitors, interleukin-1 receptor antagonists)			

Strongly recommended

Conditionally recommended

Strongly recommended against

Conditionally recommended against

No recommendation

ΟΑ: ΥΠΟΔΕΙΓΜΑ ΕΞΑΤΟΜΙΚΕΥΜΕΝΗΣ ΠΡΟΣΕΓΓΙΣΗΣ:

ΦΑΙΝΟΤΥΠΟΙ
ΑΠΕΙΚΟΝΙΣΗ
ΓΕΝΕΤΙΚΗ
ΒΙΟΔΕΙΚΤΕΣ