Recommandations actuelles des traitements non pharmacologiques dans l'arthrose

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OA and treatment strategies

- Mechanical stress
- Inflammatory stress
- Metabolic stress
- Obesity
- Aging
- Genetic

Pain management : a key point in OA treatment

Osteoarthritis and Cartilage 18 (2010) 476–499

Osteoarthritis and Cartilage

OARSI recommendations for the management of hip and knee osteoarthritis Part III: changes in evidence following systematic cumulative update of research published through January 2009

W. Zhang*, G. Nuki, R.W. Moskowitz, S. Abramson, R.D. Altman, N.K. Arden, S. Bierma-Zeinstra, K.D. Brandt, P. Croft, M. Doherty, M. Dougados, M. Hochberg, D.J. Hunter, K. Kwoh, L.S. Lohmander, P. Tugwell

Affiliations for Committee members' can be found in the following section: Members of the OARSI Treatment Guidelines Committee

Pain management : acetaminophen the first line treatment

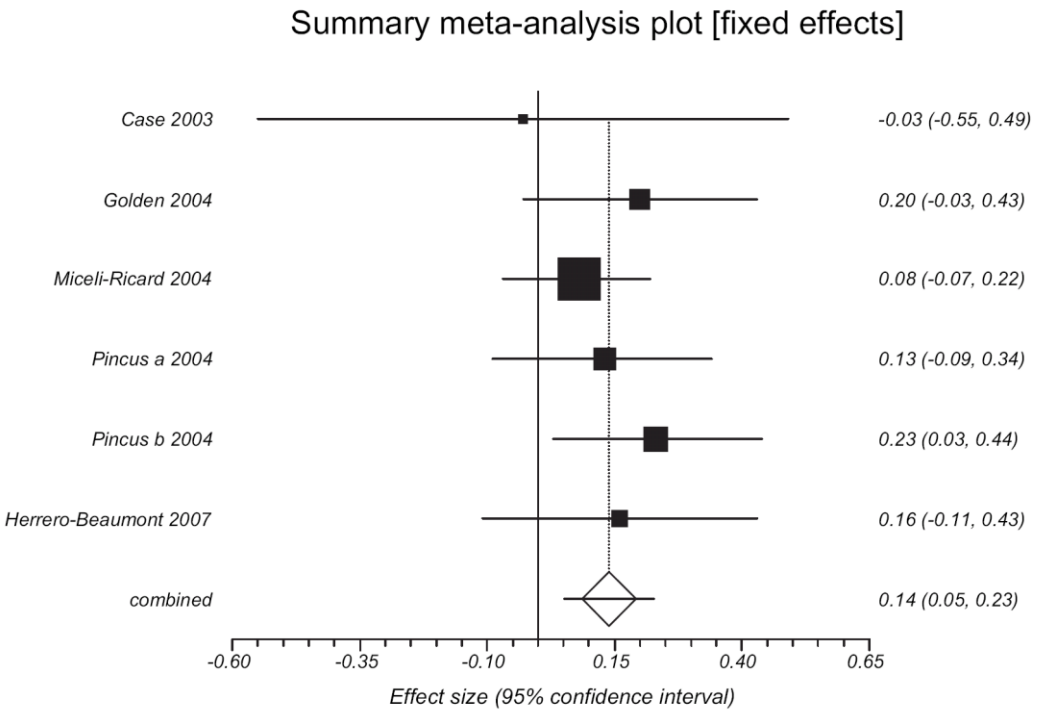


Fig. 2. Forest plot of RCTs for analgesic efficacy of acetaminophen in OA.

Pain management : acetaminophen the first line treatment

Pharmacological				
Acetaminophen	Both	100	Ia	0.14 (0.05, 0.23)[32,34*]
NSAIDs	Both	100	Ia	0.29 (0.22, 0.35)[44,*]
NSAIDs + PPIs	OA/RA	100	Ia	
NSAIDs + H2-blockers	OA/RA	100	Ia	
NSAIDs + misoprostol	OA/RA	100	Ia	
Cox-2 inhibitors	Both	100	Ia	0.44 (0.33, 0.55)[169] (exc Deek's for OA/RA)

Table 1
Best evidence for efficacy for various modalities of therapy for hip and knee OA available 31 January 2009

Pain management and high quality trials!

	All trials ES (95% CI)	High quality trials (Jaded = 5), ES (95% CI)
Acupuncture	0.35 (0.15, 0.55)	0.22 (0.01, 0.44)
Acetaminophen	0.14 (0.05, 0.23)	0.10 (−0.03, 0.23)
NSAIDs	0.29 (0.22, 0.35)	0.39 (0.24, 0.55)
Topical NSAIDs	0.44 (0.27, 0.62)	0.42 (0.19, 0.65)
IAHA	0.60 (0.37, 0.83)	0.22 (−0.11, 0.54)
GS	0.58 (0.30, 0.87)	0.29 (0.003, 0.57)
CS	0.75 (0.50, 1.01)	0.005 (−0.11, 0.12)
ASU	0.38 (0.01, 0.76)	0.22 (−0.06, 0.51)
Lavage/debridement	0.21 (−0.12, 0.54)	−0.11 (−0.30, 0.08)

OARSI guidelines

Table II
Comparison of ESs and LoE for pain relief with different modalities of therapy in 2006 and 2009

	31 January 2006 ES (95% CI), LoE	31 January 2009 ES (95% CI), LoE
Self-management	0.06 (0.02, 0.10), Ia	0.06 (0.02, 0.10), Ia
Education/information	0.06 (0.02, 0.10), Ia	0.06 (0.03, 0.10), Ia
Exercise for knee OA		
Strengthening	0.32 (0.23, 0.42), Ia	0.32 (0.23, 0.42), Ia
Aerobic	0.52 (0.34, 0.70), Ia	0.52 (0.34, 0.70), Ia
Exercise for hip OA	NA	0.38 (0.08, 0.68), Ia
Exercise in water for knee & hip OA	0.25 (0.02, 0.47), Ib	0.19 (0.04, 0.35), Ia
Weight reduction	0.13 (−0.12, 0.36), Ib	0.20 (0.00, 0.39), Ia
Acupuncture	0.51 (0.23, 0.79), Ib	0.35 (0.15, 0.55), Ia
Electromagnetic therapy	0.77 (0.36, 1.17), Ia	0.16 (−0.08, 0.39), Ia
Acetaminophen	0.21 (0.02, 0.41), Ia	0.14 (0.05, 0.22), Ia
NSAIDs	0.32 (0.24, 0.39), Ia	0.29 (0.22, 0.35), Ia
Topical NSAIDs	0.41 (0.22, 0.59), Ia	0.44 (0.27, 0.62), Ia
Opioids	NA	0.78 (0.59, 0.98), Ia
IA corticosteroid	0.72 (0.42, 1.02), Ia	0.58 (0.34, 0.75), Ia
IAHA	0.32 (0.17, 0.47), Ia	0.60 (0.37, 0.83), Ia
GS	0.61 (0.28, 0.95), Ia	0.58 (0.30, 0.87), Ia
GH	NA	−0.02 (−0.15, 0.11), Ib
CS	0.52 (0.37, 0.67), Ia	0.75 (0.50, 1.01), Ia
Diacerein	0.22 (0.01, 0.42), Ib	0.24 (0.08, 0.39), Ib
ASU	NA	0.38 (0.01, 0.76), Ia
Rosehip	NA	0.37 (0.13, 0.60), Ia
Lavage/debridement	0.09 (−0.27, 0.44), Ib	0.21 (−0.12, 0.54), Ib

NA: not available.

The key messages of 2010 OARSI guidelines

1) ES of acetaminophen is very low
2) The ES of the pharmacological treatments decrease when the quality of the studies increase
3) Treatment must combinate non pharmacological and pharmacological modalities
4) NSAIDs need to be use at the lower dose and for the shorter duration

OARSI guidelines in knee OA

Osteoarthritis and Cartilage 22 (2014) 363–388

Osteoarthritis and Cartilage

OARSI OSTEOARTHRITIS RESEARCH SOCIETY INTERNATIONAL

OARSI guidelines for the non-surgical management of knee osteoarthritis

T.E. McAlindon †*, R.R. Bannuru †, M.C. Sullivan †, N.K. Arden ‡, F. Berenbaum §‖, S.M. Bierma-Zeinstra ¶, G.A. Hawker #, Y. Henrotin ††‡‡, D.J. Hunter §§, H. Kawaguchi ‖‖, K. Kwoh ¶¶, S. Lohmander ##, F. Rannou †††, E.M. Roos ‡‡‡, M. Underwood §§§

OARSI guidelines in knee OA

T.E. McAlindon et al. / Osteoarthritis and Cartilage 22 (2014) 363–388

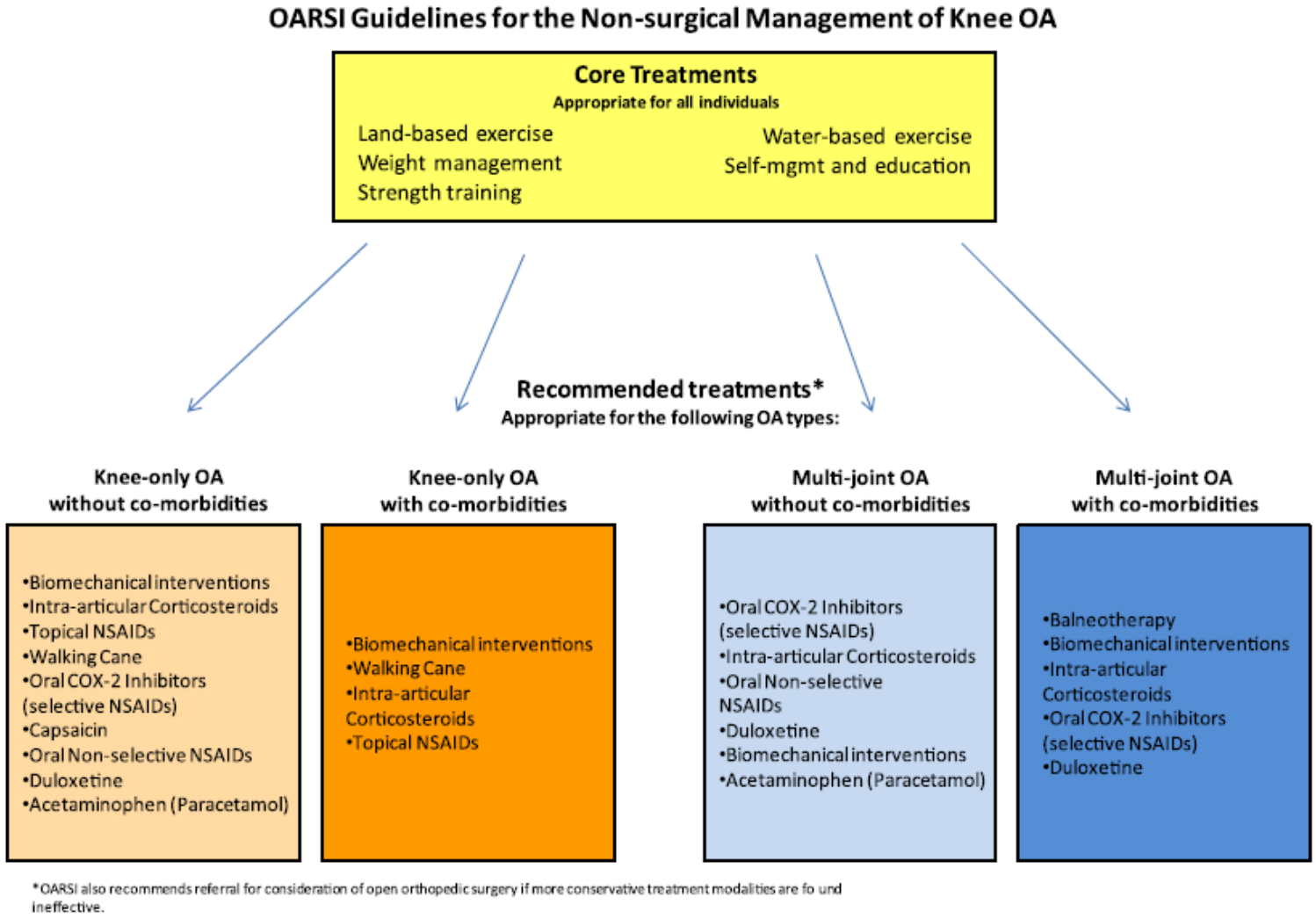


Fig. 1. Appropriate treatments summary.

The keys of OA management

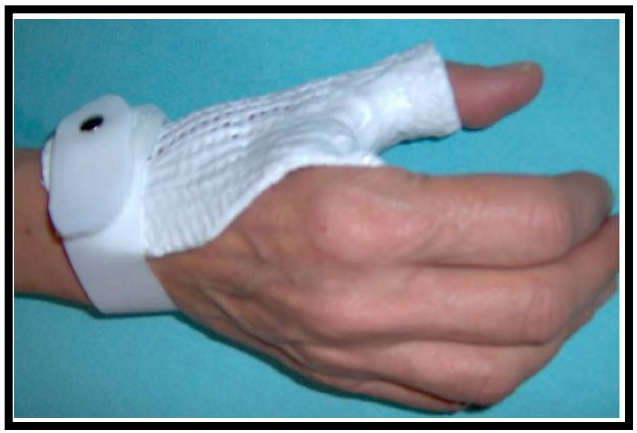
1) **Acute phase treatment**
2) **Chronic phase treatment**
3) **Joint specific treatment**
4) **Mono or poly joint OA**
5) **Comorbidities**

<u>Non pharmacological</u> and pharmacological treatments!!

Multidisciplinary approach

1) **GPs, Rheumatologists, PMR, surgeons**

2) **Physiotherapists, occupationnal therapists, podologists, nurses**



Best Practice & Research Clinical Rheumatology 24 (2010) 93–106

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journal homepage: www.elsevierhealth.com/berh

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Non-pharmacological approaches for the treatment of osteoarthritis

François Rannou, MD, PhD, Professor of Medicine [a,b,c,*], Serge Poiraudeau, MD, PhD, Professor of Medicine [a,b,c]

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[b] *Université Paris Descartes, Paris F-75006, France*
[c] *AP-HP, Groupe Hospitalier Cochin, Service de rééducation, Paris F-75014, France*

Traitement de la phase chronique quelque soit l'articulation touchée

1) Pain killer (acetaminophen : 3 grammes a day)

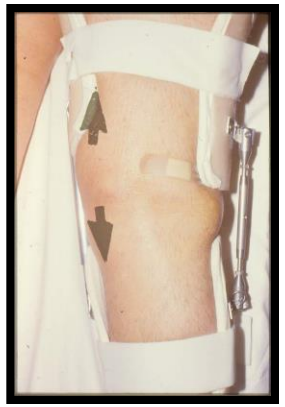
2) SYSADOA (symptomatic slow acting drugs for OA), hyaluronic acid injection

3) NSAIDs (discontinued cures + topics) : comorbidities!

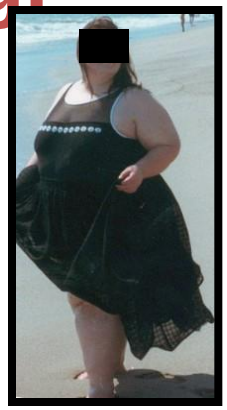
4) Non pharmacological treatment in order to decrease the load on the symptomatic joint

5) Weight reduction, physical activities

The non-pharmacological treatment in knee OA?



- Sticks, insole, knee bracing, and weight reduction



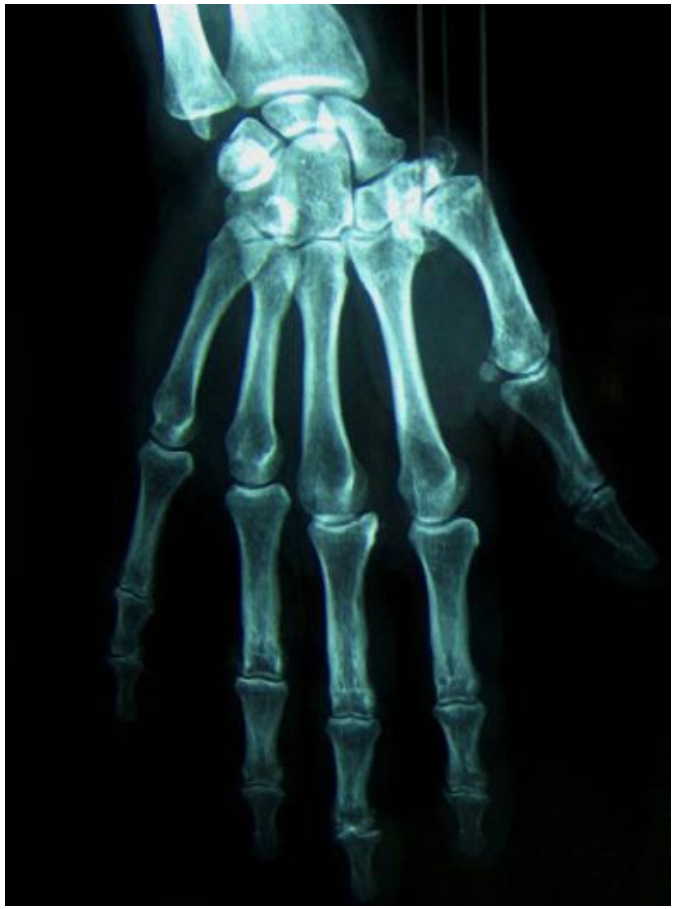
+ Physical therapy and activities

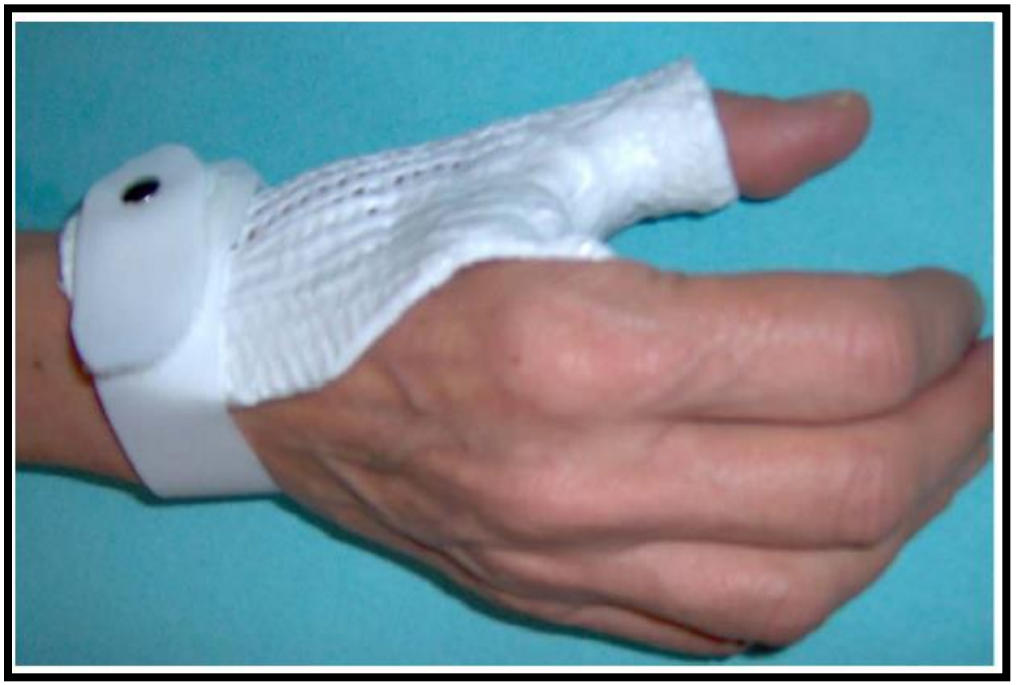
The non-pharmacological treatment in hip OA?

- Sticks, insole, and weight reduction

+ Physical therapy and activities

Splint for base of thumb OA





Decreases pain and improves disability

Annals of Internal Medicine | ARTICLE

Splint for Base-of-Thumb Osteoarthritis

A Randomized Trial

François Rannou, MD, PhD; Jérôme Dimet, PharmD; Isabelle Boutron, MD, PhD; Gabriel Baron, PhD; Fouad Fayad, MD, MS; Yann Macé, MD; Johann Beaudreuil, MD, PhD; Pascal Richette, MD, PhD; Philippe Ravaud, MD, PhD; Michel Revel, MD; and Serge Poiraudeau, MD, PhD

Rannou et al, Ann Int Med 2009

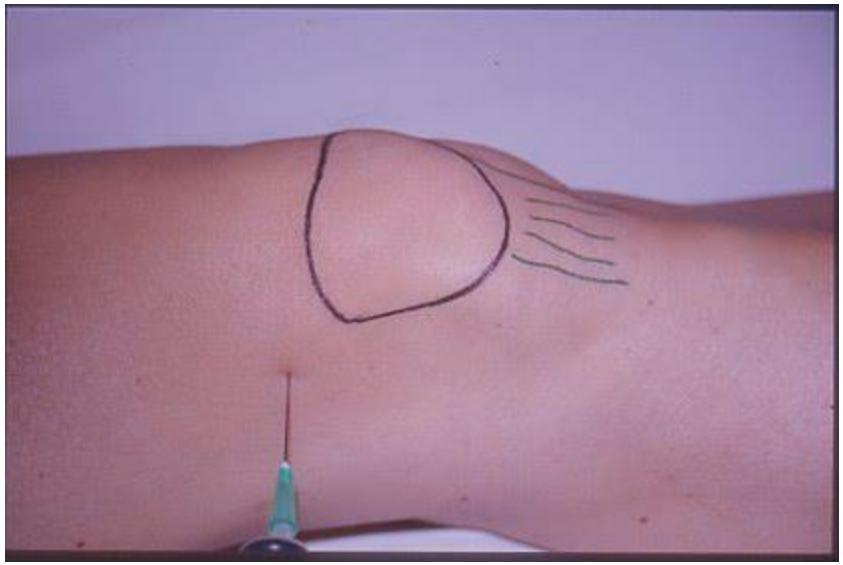
Chronic phase treatment and non pharmacological treatment

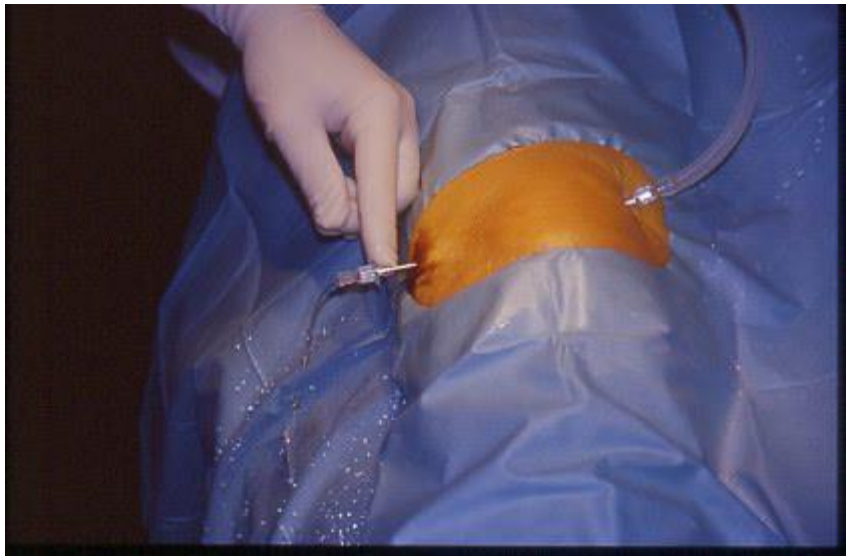
Non specific exercises

+

Weight reduction

Acute phase treatment and pharmacological treatment: Corticosteroid injections, NSAIDs: discontinued cures + topics

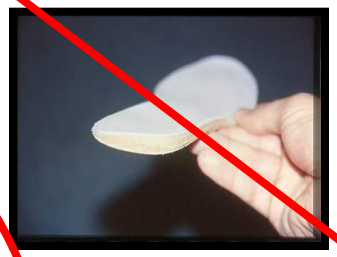


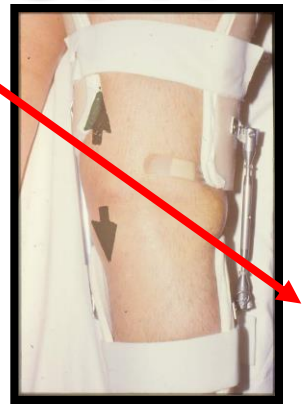


Courtesy of X Ayral, Cochin Hospital, Paris

Acute phase treatment and non pharmacological treatment

The non-pharmacological treatment in knee and hip OA?





Sticks, insole, knee bracing, and weight reduction

Ordonnance type : gonarthrose FTI

- Membres inférieurs
- Renforcement chaîne externe (BF, TFL)
- Renforcement des muscles stabilisateurs du genou (IJ, QU)
- Travail aérobie
- Gain d'amplitude articulaire, lutte contre le flessum, posture et autoposture
- Travail proprioceptif
- Autoprogramme
- Pas d'US, pas de massages

Ordonnance type : gonarthrose FTI

- 1 paire de semelles amortissantes
- 1 genouillère
- 1 paire d’orthèse plantaire avec coin postéro-externe

Ordonnance type : gonarthrose FTI du patient jeune

- 1 paire de semelles amortissantes
- 1 genouillère
- 1 paire d'orthèse plantaire avec coin postéro-externe
- 1 orthèse dynamique

Ordonnance type : coxarthrose

- Membres inférieurs
- Renforcement pelvitrochantériens
- Renforcement des muscles stabilisateurs de la hanche (Eventail fessier)
- Travail aérobie
- Gain d'amplitude articulaire, lutte contre la perte d'extension et le flessum, posture et autoposture
- Autoprogramme
- Pas d'US, pas de massages

Ordonnance type : rhizarthrose

- Membres supérieurs
- Gain d'amplitude, posture et autoposture de la 1ère commissure
- Renforcement des muscles intrinsèques et extrinsèques de la main, de la pince pouce index
- Travail aérobie
- Autoprogramme

Ordonnance type : coxarthrose

- 1 paire de semelles amortissantes
- Conseils de chaussage
- Canne

Ordonnance type : rhizarthrose

- **Orthèse de repos pouce-index**

Balneotherapy/spa therapy

Recommendation:

- **Appropriate**: individuals with multiple-joint OA and relevant co-morbidities
- **Uncertain**: individuals without relevant co-morbidities
- **Uncertain**: individuals with knee-only OA

Rationale:

Balneotherapy (defined as the use of baths containing thermal mineral waters) includes practices such as Dead Sea salt or mineral baths, sulfur baths, and radon-carbon dioxide baths. Two 2009 SRs and a 2009 RCT demonstrated benefit of balneotherapy for pain when compared with controls, but the methodologic quality of trials was poor and both reviews concluded that additional large and well-designed RCTs are needed[6–8]. No significant safety concerns were found to be associated with balneotherapy, though reporting of adverse events was patchy among included trials[7,9]. In the voting, balneotherapy was considered appropriate only for the sub-phenotype with multiple-joint OA and co-morbidities, due to paucity of treatment alternatives for that group.

Quality assessment:

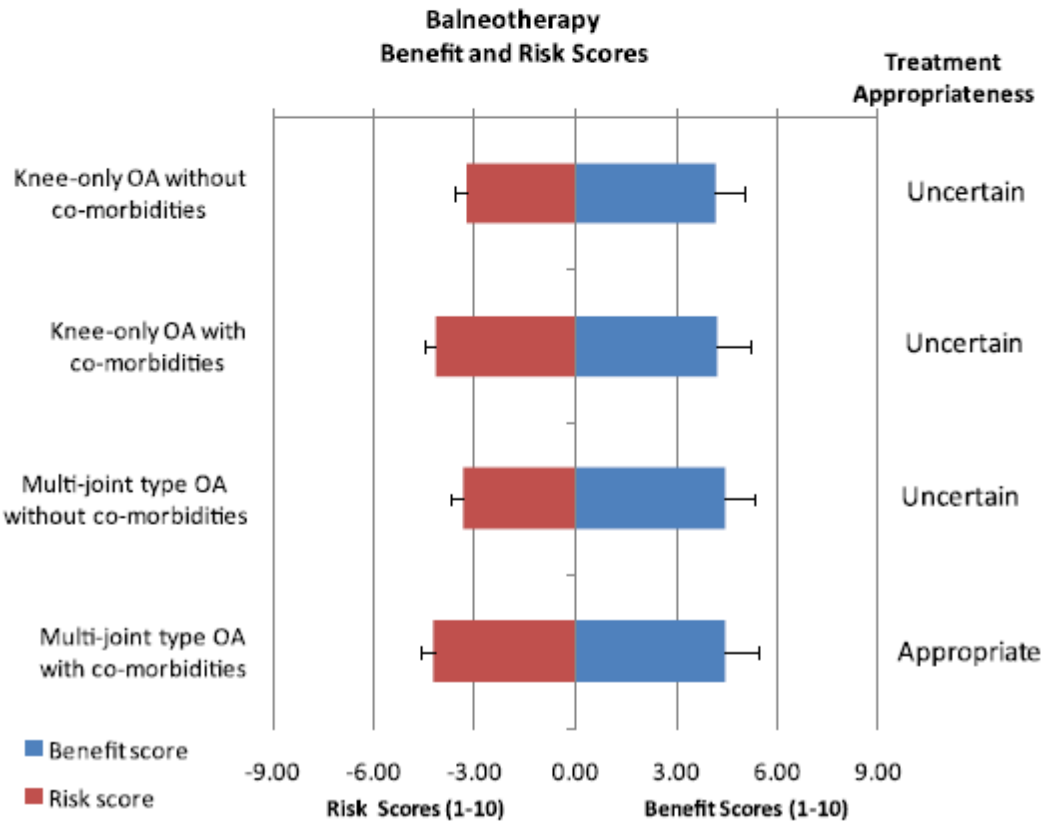
Level of evidence: SR and meta-analysis of RCTs.
Quality of evidence: Fair.

Estimated Effect Size for Pain or Function: Not available.

Balneotherapy/SPA therapy

Level of evidence: SR and meta-analysis of RCTs.
Quality of evidence: Fair.

Estimated Effect Size for Pain or Function: Not available.



CONCLUSION

L'arthrose est la maladie la plus handicapante après 40 ans

La prise en charge thérapeutique de l'arthrose associe des traitements pharmacologiques et non pharmacologiques

Les traitements non pharmacologiques n'ont pas d'effets secondaires!

Le patient est au centre de la discussion chirurgicale

Mode d'entrée dans les maladies métaboliques et cardiovasculaires (diabète, chol, HTA)

OA and treatment strategies: from EBM to personnalized medicine

- acute/chronic phase
- inflammatory/mechanical phase
- male/female
- post-traumatic/non traumatic
- single/generalized osteoarthritis
- systemic/local strategies
- preventive/symptomatic/structural
- effect size/side effects : comorbidities
- placebo effect