The AAOS CPG on Non-Arthroplasty Care of the Knee

“ Treatment of Osteoarthritis of the Knee, 2nd Edition”

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Disclosures
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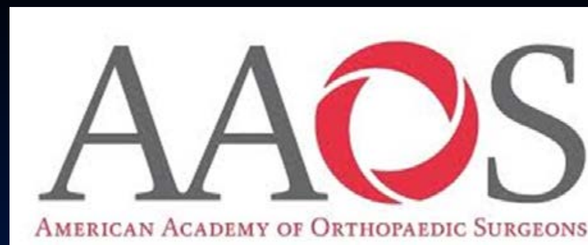
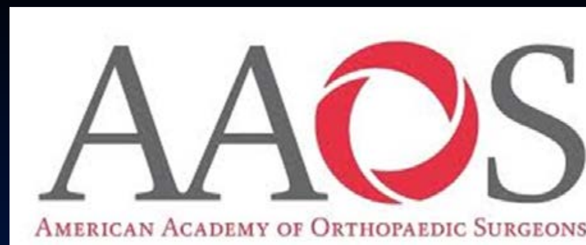


- AAOS CPG
  - **TREATMENT OF OSTEOARTHRITIS OF THE KNEE, EVIDENCE-BASED GUIDELINE, 2ND EDITION**
    - ≈ Adopted May 18, 2013
      - » Prior version 2008
    - ≈ Available on AAOS website
      - » Quality Section
        - ♦ Clinical Practice Guidelines
    - ≈ 1229 page document
    - ≈ 18 guidelines regarding treatment options



- AAOS CPG
- **Work group**
  - **David S. Jevsevar, MD, MBA, Chair**
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  - **Dina L. Jones, PT, PhD**
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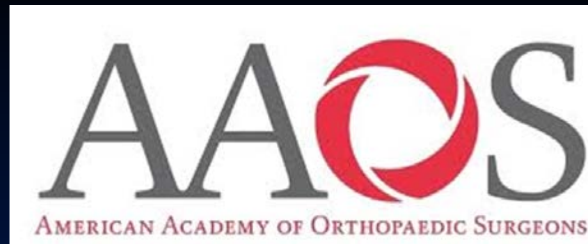
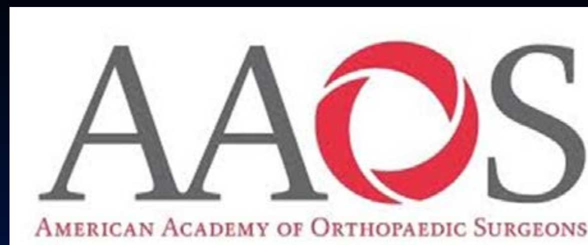
    - Medical Librarian
  - **Leeaht Gross, MPH;**
    - Evidence-Based Medicine Coordinator

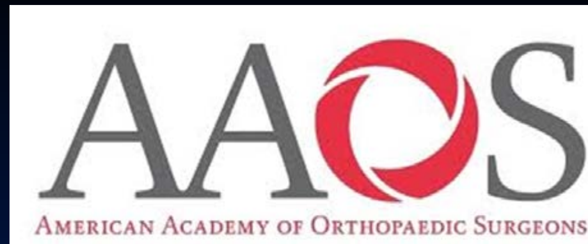
Guideline development team free of COIs



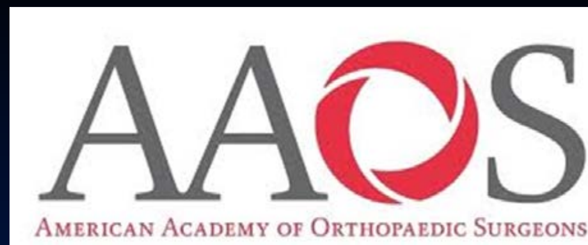
- AAOS CPG
- Recommendations were established using methods of evidence-based medicine that rigorously control for bias, enhance transparency, and promote reproducibility.



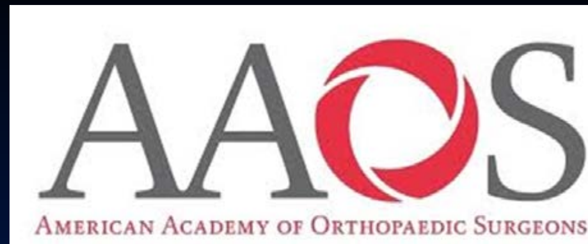
- AAOS CPG: Caveats
- Medical care should always be based on a physician's expert judgment and the patient's circumstances, values, preferences and rights.
- For treatment procedures to provide benefit, mutual collaboration with shared decision-making between patient and healthcare provider is essential



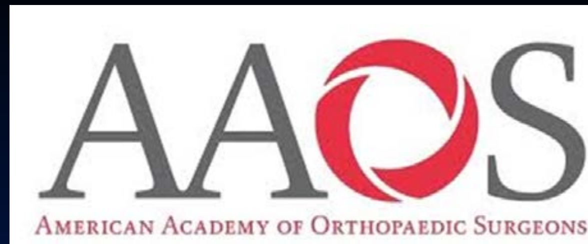
- AAOS CPG: Methodology
  - Inclusion of only original research that met certain inclusion criteria



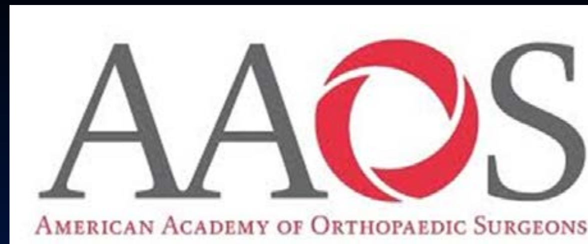
- AAOS CPG: Methodology
  - Study was published peer-reviewed journal
  - Study had a sample of ≥30 patients per treatment group
  - Study was of humans
  - Study was published in English
  - Study was published during or after 1966
  - Study results were presented quantitatively
  - Study treatment follow up was at least 4wks



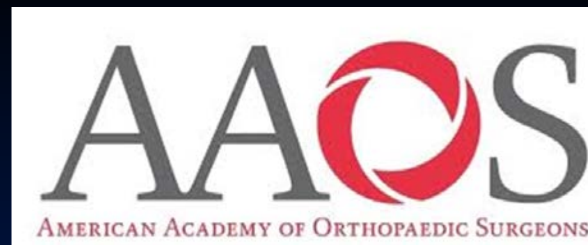
- AAOS CPG: Methodology
  - The methodologists then appraised the quality and applicability of each included study based upon specific standards



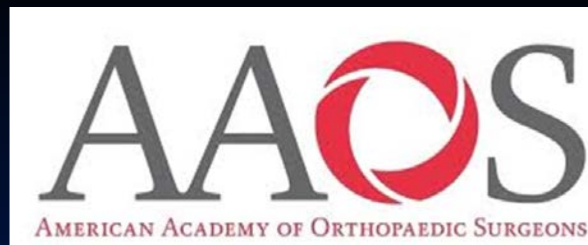
- AAOS CPG: Methodology
  - Prospective design
  - Adequate statistical power
  - Randomized
  - Sufficient blinding to mitigate placebo effect
  - Comparability of study groups
  - Observed differences could reasonably be due to treatment
  - Validated outcome measures
  - Absence of investigator bias



- AAOS CPG: Methodology
  - Assigned quality rating to each included paper based upon number of flaws using the pre-determined standards
    - ≈ High
    - ≈ Moderate
    - ≈ Low
    - ≈ Very Low
  - Determined a GRADE for the particular question based upon overall Strength of Evidence



Strength of Evidence	Grade
Two or more “High” strength studies	Strong
Two or more “Moderate” strength studies	Moderate
Two or more “Low” strength studies	Limited
Single “low” strength study	Inconclusive
Supporting evidence is lacking & required the work group to make a recommendation based on expert opinion	Consensus



Grade	Language
Strong	We recommend
Moderate	We suggest
Limited	The practioneer might
Inconclusive	We are unable to recommend for or against
Consensus	In the absence of reliable evidence, the opinion of this work group is

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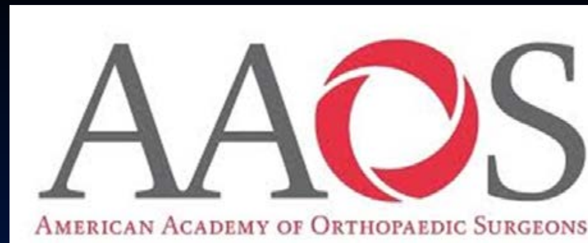
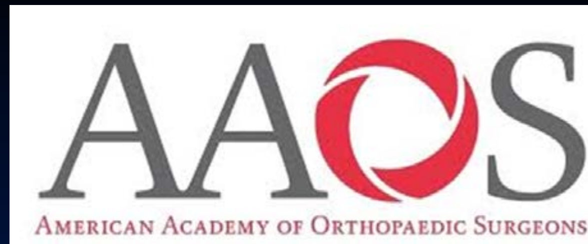
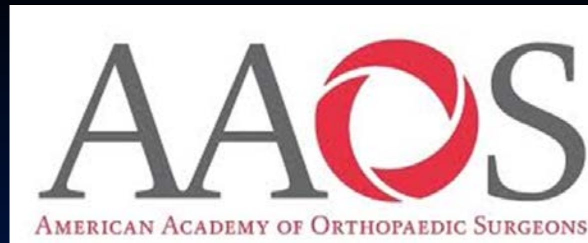


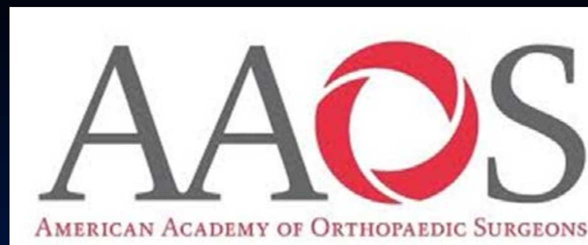
- Description: A Strong recommendation means that the benefits of the recommended approach clearly exceed the potential harm and/or that the quality of the supporting evidence is high.



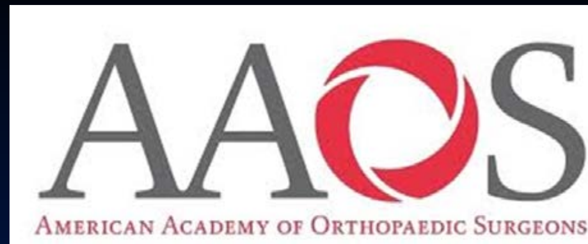
- Description: A Strong recommendation
- Implications: Practitioners should follow a Strong recommendation unless a clear and compelling rationale for an alternative approach is present



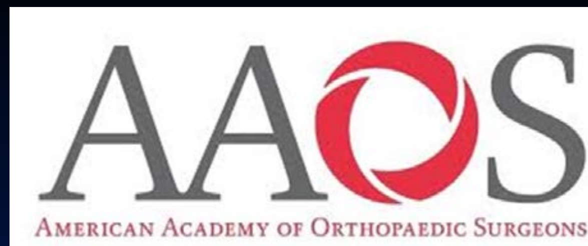
- Description: A **Moderate** recommendation means that the benefits exceed the potential harm (or that the potential harm clearly exceeds the benefits in the case of a negative recommendation), but the quality/applicability of the supporting evidence is not as strong.



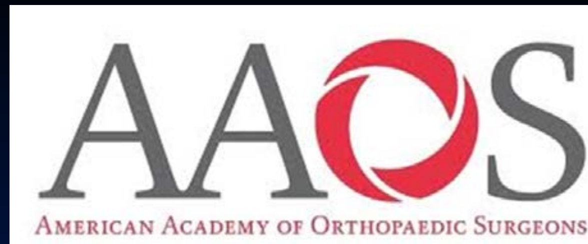
- Description: **Moderate** recommendation
- Implications: Practitioners should generally follow a **Moderate** recommendation but remain alert to new information and be sensitive to patient preferences



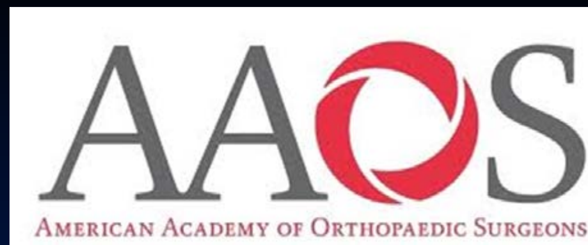
- Description: A **Limited** recommendation means that the quality of the supporting evidence is unconvincing, or that well-conducted studies show little clear advantage to one approach over another



- Description: **Limited** recommendation
- Implications: Practitioners should exercise clinical judgment when following a recommendation classified as **Limited**, and should be alert to emerging evidence that might counter the current findings. Patient preference should have a substantial influencing role.



- Description: An **Inconclusive** recommendation means that there is a lack of compelling evidence that has resulted in an unclear balance between benefits and potential harm.



- Description: **Inconclusive** recommendation
- Implications: Practitioners should feel little constraint in following a recommendation labeled as Inconclusive, exercise clinical judgment, and be alert for emerging evidence that clarifies or helps to determine the balance between benefits and potential harm. Patient preference should have a substantial influencing role.

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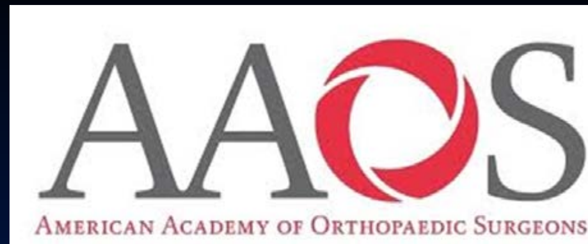
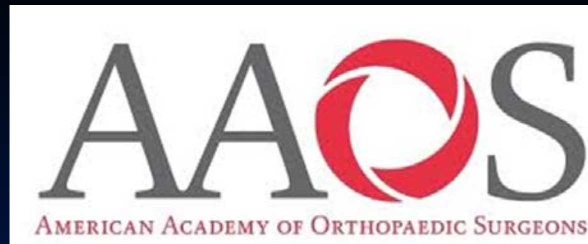
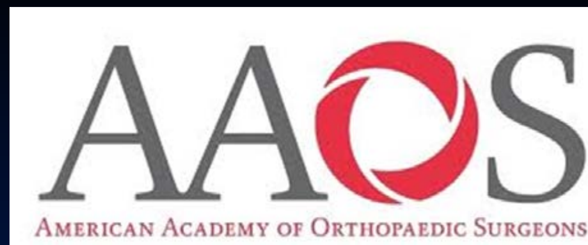


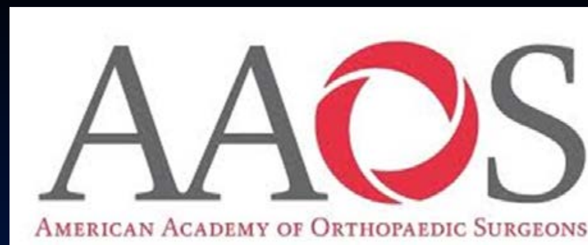
- Description: A **Consensus** recommendation means that expert opinion supports the guideline recommendation even though there is no available empirical evidence that meets the inclusion criteria of the guideline's systematic review.



- Description: **Consensus** recommendation
- Implications: Practitioners should be flexible in deciding whether to follow a recommendation classified as Consensus, although they may give it preference over alternatives. Patient preference should have a substantial influencing role.



- Conservative Treatments:
  - Recommendations 1-6
- Pharmacologic Treatments:
  - Recommendation 7
- Procedural Treatments:
  - Recommendation 8-11
- Surgical Treatments:
  - Recommendation 12-15



RECOMMENDATION 1

- We recommend that patients with symptomatic osteoarthritis of the knee participate in self-management programs, strengthening, low-impact aerobic exercises, and neuromuscular education; and engage in physical activity consistent with national guidelines.
- Strength of Recommendation: **Strong**

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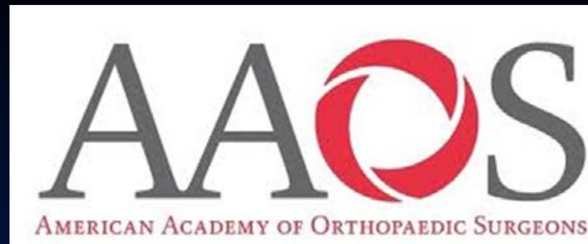
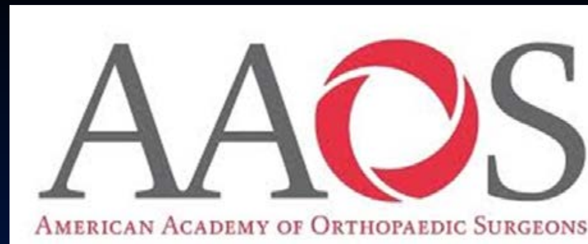


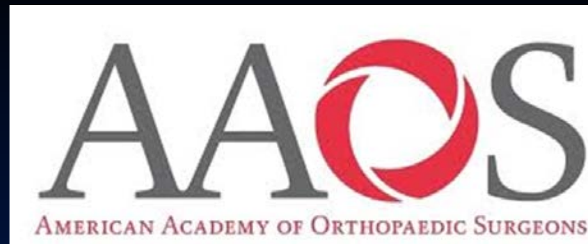
RECOMMENDATION 2

- We suggest weight-loss for patients with symptomatic osteoarthritis of the knee and a BMI ≥25
- Strength of Recommendation: **Moderate**



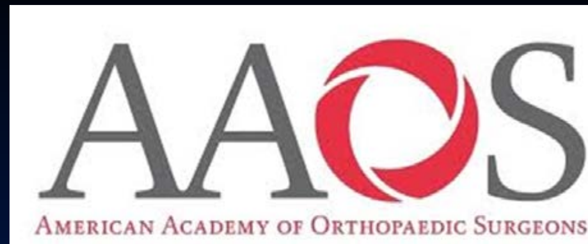
RECOMMENDATION 3A

- We cannot recommend using acupuncture in patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Strong**



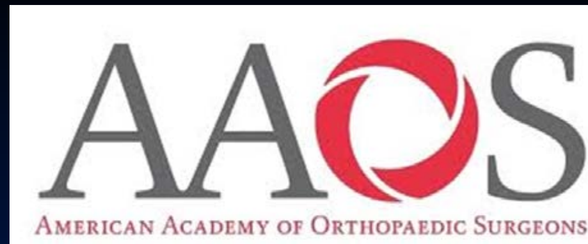
RECOMMENDATION 3B

- We are unable to recommend for or against the use of physical agents (including electrotherapeutic modalities) in patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Inconclusive**



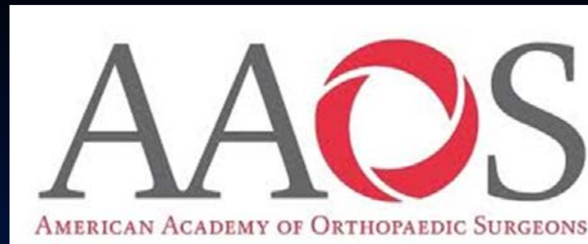
RECOMMENDATION 4

- We are unable to recommend for or against the use of a valgus directing force brace (medial compartment unloader) for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Inconclusive**



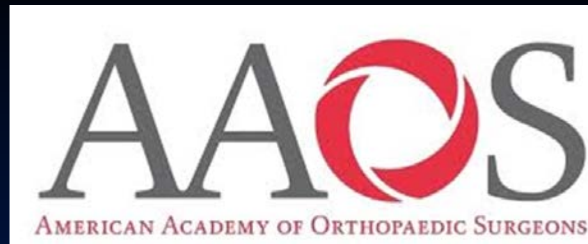
RECOMMENDATION 5

- We cannot suggest that lateral wedge insoles be used for patients with symptomatic medial compartment osteoarthritis of the knee.
- Strength of Recommendation: **Moderate**



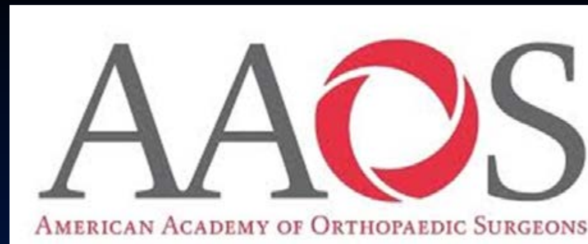
RECOMMENDATION 6

- We cannot recommend using glucosamine and chondroitin for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Strong**



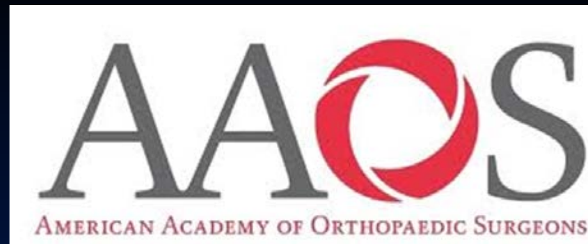
RECOMMENDATION 7A

- We recommend non-steroidal anti-inflammatory drugs (NSAIDs; oral or topical) or Tramadol for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Strong**



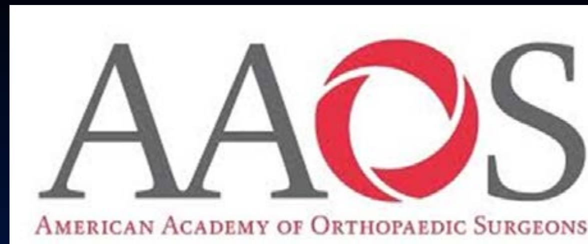
RECOMMENDATION 7B

- We are unable to recommend for or against the use of acetaminophen, opioids, or pain patches for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Inconclusive**



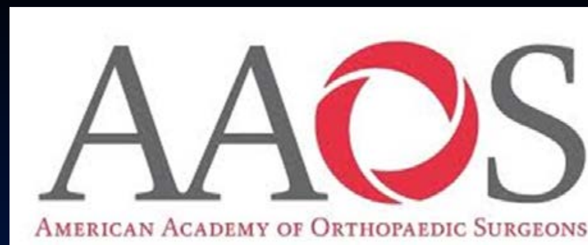
RECOMMENDATION 8

- We are unable to recommend for or against the use of intraarticular (IA) corticosteroids for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Inconclusive**



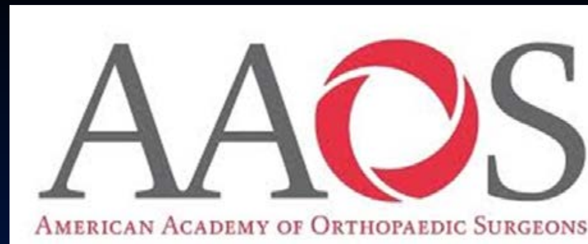
RECOMMENDATION 9

- We cannot recommend using hyaluronic acid for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Strong**



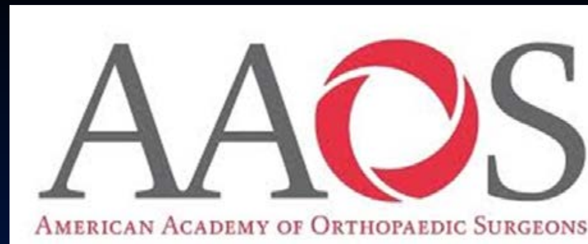
RECOMMENDATION 10

- We are unable to recommend for or against growth factor injections and/or platelet rich plasma for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Inconclusive**



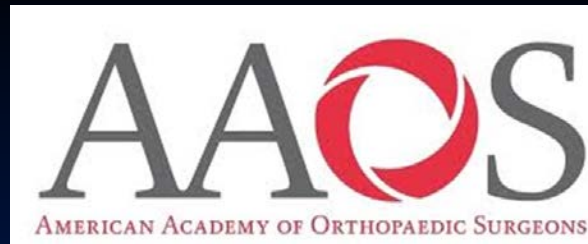
RECOMMENDATION 11

- We cannot *suggest* that the practitioner use needle lavage for patients with symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Moderate**



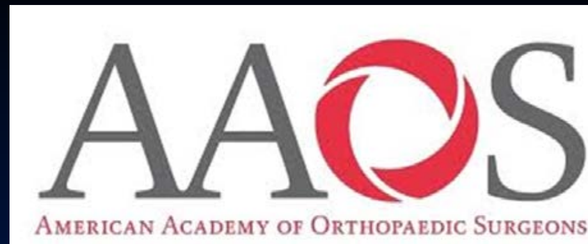
RECOMMENDATION 12

- We cannot recommend performing arthroscopy with lavage and/or debridement in patients with a primary diagnosis of symptomatic osteoarthritis of the knee.
- Strength of Recommendation: **Strong**



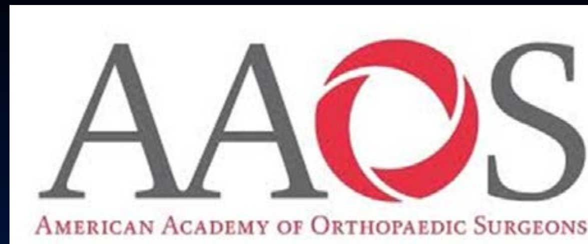
RECOMMENDATION 13

- We are unable to recommend for or against arthroscopic partial meniscectomy in patients with osteoarthritis of the knee with a torn meniscus.
- Strength of Recommendation: **Inconclusive**



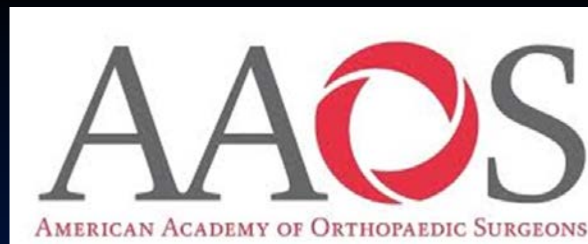
RECOMMENDATION 14

- The practitioner might perform a valgus producing proximal tibial osteotomy in patients with symptomatic medial compartment osteoarthritis of the knee.
- Strength of Recommendation: **Limited**



RECOMMENDATION 15

- In the absence of reliable evidence, it is the opinion of the work group not to use the free-floating (un-fixed) interpositional device in patients with symptomatic medial compartment osteoarthritis of the knee.
- Strength of Recommendation: **Consensus**



Strong Evidence (Recommend practitioners should do this)

For:

Exercise & wellness

NSAIDS/Tramadol

Against:

Acupuncture

Glucosamine/Chondroitin

HA injections

Arthroscopic Lavage

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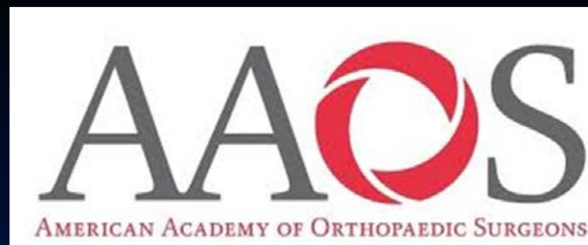


Moderate Evidence (Suggest practitioner should do this)

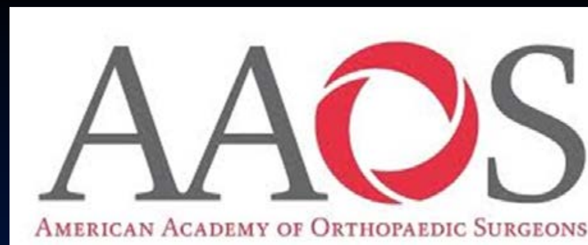
For:

Weight loss

Against:

Lateral wedge insoles

Needle lavage

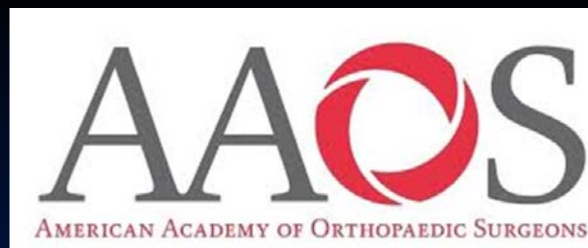


Limited Evidence (Practitioner might do this)

For:

Tibial Osteotomy

Against:



Inconclusive Evidence (Unable to recommend for or against)

Physical agents & electrotherapeutic modalities

Manual therapy

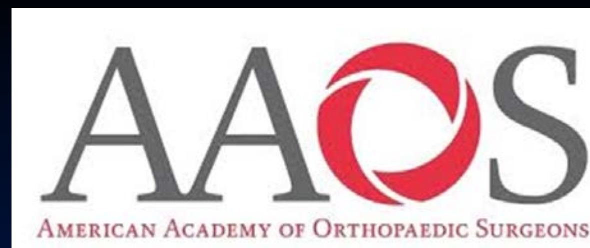
Valgus un-loader braces

Acetaminophen/ Opioids/ Pain patches

Cortisone injections

Biologic injections (PRP)

Arthroscopic partial meniscectomy



<u>Consensus</u> (In absence of evidence opinion of the work group is)

Failure of unispacer

Thank You for Your Attention