

**Specific Question:**

***In adults with ankle osteoarthritis is exercise / physiotherapy / rehabilitation / conservative treatment more effective than surgical options?***

**Clinical bottom line**

*There are no direct comparison studies between conservative management and surgery to enable us to answer this question. This is mostly because surgery is a last resort treatment due to the increased risk and complications following surgery.*

*Despite the lack of clear evidence for benefits and harms of conservative management for adults with ankle OA, it would be sensible for clinical practice to remain the same until further clinical trials have been completed.*

**Why is this important?**

*This question was selected due to the lack of standardisation by clinicians with regards to best clinical practice. Ankle OA constitutes only 4.4% of patients referred to orthopedic clinic for the management of lower extremity OA.*

**Search timeframe (e.g. 2006-2017)**

**Inclusion Criteria**

	Description	Search terms
<b>Population and Setting</b>	Adults with ankle OA within any care setting	Adults, OA, osteoarthritis, lower limb, talocrural joint, joint pain
<b>Intervention or Exposure</b>	physiotherapy, exercise and conservative management, including advice leaflets etc	physiotherapy, exercise, conservative management, advice, leaflets, education, heat, ice, cryotherapy, hands-on, manual therapy, stretches, strengthening, weight loss, NSAIDS, pain killers, acupuncture, insoles, brace, rocker sole, hyaluronic acid

Getting Evidence into Clinical Practice:  
 Musculoskeletal Research Facilitation Group (CAT Group)  
 Date: September 2017

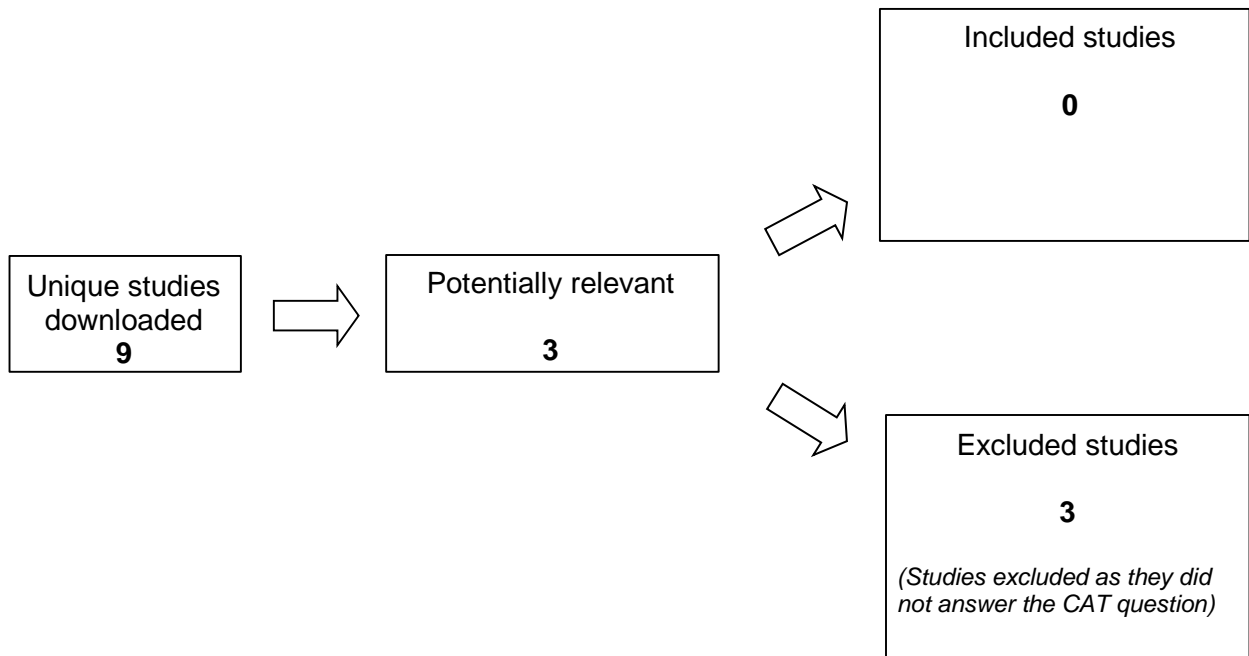
<b>Comparison, if any</b>	Surgical interventions	surgery, surgical, arthrodesis, ankle fusion, ankle replacement, osteotomy
<b>Outcomes of interest</b>	Visual analogue scale, ROM, quality of life, function	Pain, visual analogue scale, quality of life, ROM, function, return to work
<b>Types of studies</b>	RCT and SR	RCT and SR

**Routine Databases Searched**

Clinical Knowledge Summaries, PEDro, BMJ Updates, Clinical Evidence, TRIP, Database, NICE, HTA, Bandolier, TheCochrane Library, Medline, Cinahl, Embase, PsycInfo, Professional websites. Joanna Briggs Institute, Web of science, Sports discus and Pub med

**Date of search-** June 2017

**Results of the search**



## Summary

*Ankle OA has significant different pathogenesis compared to hip and knee OA. Previous bone trauma to the ankle contributes to nearly 80% of all ankle OA cases, compared to 9.8% and 1.6% of knee and hip OA patients respectively (Chang et al. 2013).*

*Patients with ankle OA are on average younger than typically seen in OA populations, occurring in the middle-aged years for most patients. Patients with ankle OA suffer an accelerated functional decline with progression to end stage ankle OA is 10-20 years (Chang et al. 2013).*

*Several studies have published positive results for knee and hip OA conservative management and include weight reduction, physiotherapy and occupational therapy. Conservative management for ankle OA is clinically based on general OA guidelines, however no studies have been identified to support the use on non-surgical treatment with adults with ankle OA (Witteveen et al. 2015).*

*There are no direct comparison studies between conservative management and surgery as surgery is a last resort treatment due to the increased risk and complications following surgery, which include loosening, malalignment and non-union (Chang et al. 2013).*

## Implications for Practice/research

*At present there is no evidence for the benefit or harm of conservative management.*

*Despite the different pathogenesis and aetiology of adult ankle OA it is sensible to continue applying general OA guidelines to a patients' management. Previous trauma accounts for 80% of ankle OA cases. Therefore, clinicians should be highly suspicious of ankle OA in the absence of a diagnosis confirmed with radiograph techniques should the patient have a history of previous trauma to the ankle.*

*Surgical complication rates vary up to 44%. Due to the high risk of short and long term surgical complications, clinicians should avoid onward referral to orthopedic specialists for patients with low grade ankle OA.*

*Further high quality, large RCT's are required to improve and develop best practice conservative management guidelines.*

## What would you tweet about your CAT?

*'No studies available to answer the surgery or physio dilemma for patients with OA ankle.'*

## References

Bloch B, Srinivasan S, Mangwana J. (2015) Concepts in the Management of Ankle Osteoarthritis: A Systemic Review. *The Journal of Foot and Ankle Surgery*; **54**: 932 - 939

Chang K, Hsiao M, Chen W, Wang T, Chien K (2013) Effectiveness of Intra-Articular Hyaluronic Acid for Ankle Osteoarthritis Treatment: A Systemic Review and Meta-Analysis. *Archives of Physical Medicine and Rehabilitation*; **94**: 951 - 960

Witteveen A, Hofstad C, Kerkhoffs G (2015) Hyaluronic acid and other conservative treatment options for osteoarthritis of the ankle. *Cochrane Database of Systemic Reviews*; **10**