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RAPID RESEARCH

September 2023



Inside This Week: Base of Thumb OA: Prevalence & Treatment

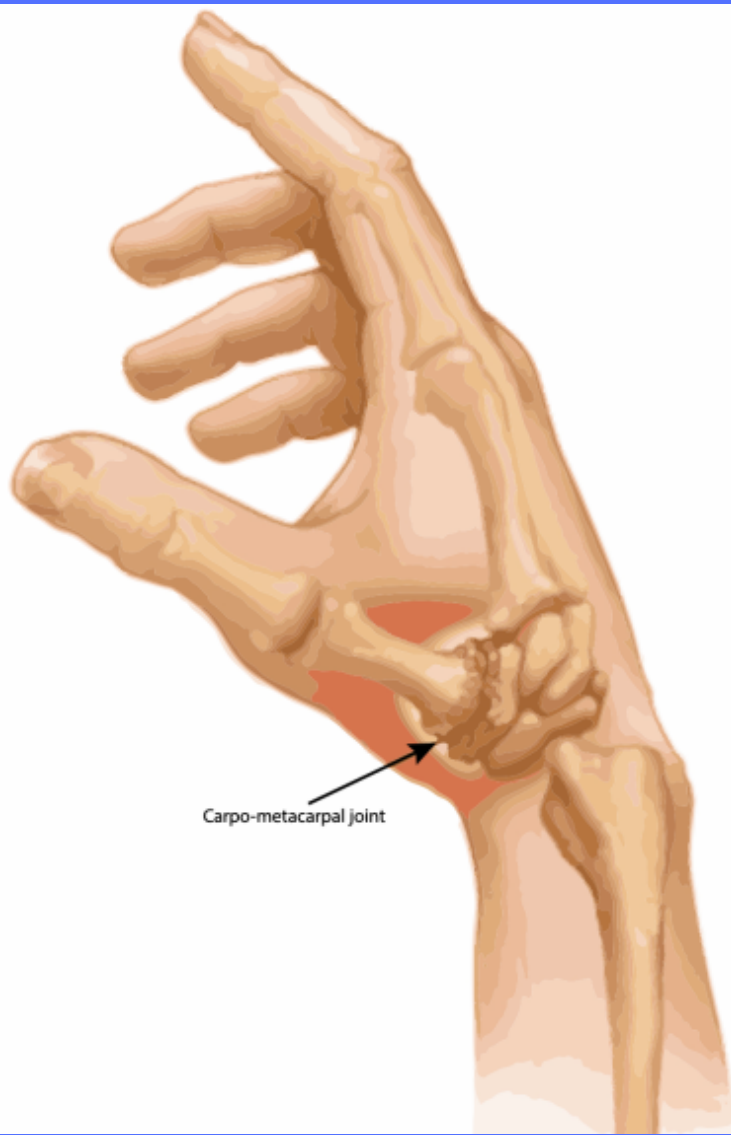
- ✓ Prevalence of Thumb OA
- ✓ Surgical Interventions for Base of Thumb Arthritis
- ✓ Injection Therapy for Base of Thumb Osteoarthritis

PREVALENCE OF THUMB OSTEO ARTHRITIS

SEPTEMBER 2023

[Click for Full Text
\(Van Der Oest et al.
2021\)](#)

This meta-analysis analyzed the body of research to determine the age and sex-specific prevalence of radiographic thumb base OA.



KEY FINDINGS

16 studies & 104 age and gender specific-prevalence rates included.

Meta-regression estimated the odds ratio (OR) of having radiographic thumb base OA for age and sex, while adjusting for within-study correlation.

Prevalence of OA:

50-year-old male [5.8%]

50-year-old female [7.3%]

80-year-old male [33.1%]

80-year-old female [39.0%]

Odds Ratio for having radiographic OA of 1.06 per increasing year of age, and 1.30 for females.

MAIN TAKEAWAYS

Prevalence of thumb base OA is highly variable and dependent on age and sex.

Future studies may investigate additional factors that explain the difference between radiological and symptomatic thumb base OA.

Knowing which factors are associated with the progression from radiological to symptomatic thumb base OA will allow doctors to treat the underlying causes more effectively.

SURGICAL INTERVENTIONS FOR BASE OF THUMB ARTHRITIS

[Click for Full Text
\(Challoumas et al.
2022\)](#)

This meta-analysis assessed the comparative effectiveness of different surgical interventions available for the treatment of thumb CMCJ arthritis.



17 randomized studies were included, 1,083 participants.

Outcomes assessed: pain, function, and key pinch strength at long-term follow-up (> 6 months).

Moderate-Certainty Level Evidence

Trapeziectomy with a concomitant ligament reconstruction and tendon interposition (LRTI) has no long-term clinical benefits compared with simple trapeziectomy.

Treatment rankings favored LRTI, joint replacement, and arthrodesis.

LRTI associated with fewer major complications compared with joint replacement and arthrodesis, and more minor complications compared with simple trapeziectomy.

MAIN TAKEAWAYS

Simple trapeziectomy without a concomitant soft tissue procedure (LR and/or TI) should be the preferred procedure for patients with thumb CMCJ arthritis requiring surgery.

Routine postoperative radiographic surveillance specifically looking for thumb metacarpal collapse appears unnecessary as it does not appear to be clinically relevant.

High-quality, double-blinded studies comparing different surgical treatments are needed to increase the certainty of evidence.

This is especially the case for joint replacement and arthrodesis, which are poorly represented in the literature.

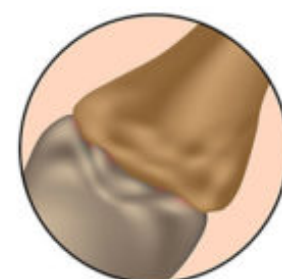
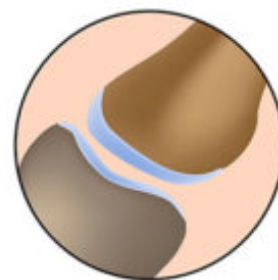
INJECTION THERAPY FOR BASE OF THUMB OSTEOARTHRITIS

[Click for Full Text
\(Riley et al. 2018\)](#)

This study evaluated the effectiveness of injection-based therapy in base of thumb osteoarthritis.



Healthy joint



Osteoarthritis

KEY FINDINGS

9 RCTs involving 504 patients were included.

20 injection-based intervention groups, consisting of hyaluronic acid (n=9), corticosteroid (n=7), saline placebo (n=3) and dextrose (n=1).

Pain Outcomes:

Minimal significant findings overall.

Corticosteroid vs hyaluronic acid had moderate reduction in pain in the medium term.

No differences in other measures of pain or function in the short term and medium term.

Overall, the available evidence does not suggest that any of the commonly used injection therapies are superior to placebo, one another or a non-injection-based comparator

MAIN TAKEAWAYS

Current evidence is equivocal regarding the use of injection therapy in base of thumb osteoarthritis, both in terms of which injection-based therapy is the most effective and in terms of whether any injection-based therapy is more effective than other non-injection-based interventions.

Given limited understanding of both the short-term and long-term effects, there is a need for large, methodologically robust multicentre RCTs investigating the commonly used injection therapies and comparison made with other therapeutic options and placebo.

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