

Are there effective non-surgical interventions for osteoarthritis of the big toe?

Clinical Question

What non-surgical interventions are effective and safe for treating osteoarthritis (OA) of the big toe joint?

Bottom Line

The use of arch-contouring foot orthoses provided similar effectiveness to sham inserts for improving foot pain, function, and quality of life in people with big toe OA, with a similar risk of adverse events.

The use of shoe-stiffening inserts provided similar effectiveness to sham inserts for improving foot pain, function, and quality of life in people with big toe OA. The magnitude of the difference between groups approached statistical significance if shoe-stiffening inserts were used with rehabilitation therapy (0.50 worse to 13.10 better on a 100-point scale). There were no differences in the risk of adverse events.

A single intra-articular injection of hyaluronic acid offered no benefit when compared to placebo injection for improving foot pain, function, quality of life or big toe range of motion in people with big toe joint OA, with a similar risk of adverse events.

Caveat

The quality of the evidence in this review is limited by the small number of included trials with evidence for each intervention arising from single trials, and the risk of bias in their reported outcomes. In addition only two of the six trials evaluated the interventions for longer than 12 weeks and considering OA is a chronic long-term condition this is a major limitation.

Context

OA affecting the first metatarsophalangeal joint (hallux rigidus) is common and painful. Several non-surgical treatments have been proposed; however, few have been adequately evaluated.

Cochrane Systematic Review

Munteanu SE, Buldt A, Lithgow MJ, Cotchett M, Landorf KB, Menz HB. Non-surgical interventions for treating osteoarthritis of the big toe joint. Cochrane Database of Systematic Reviews 2024, Issue 6. Art. No.: CD007809. DOI: 10.1002/14651858.CD007809.pub3. This review contains 6 trials which included 547 people.

Pearls No. 749, June 2024, written by Assoc Professor Vanessa MB Jordan.

Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD007809.pub3/full>