

# Methotrexate reduces pain in hand osteoarthritis with synovitis

November 6 2023, by Elana Gotkine

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For patients with hand osteoarthritis and synovitis, methotrexate has a

potentially clinically meaningful effect on reducing pain, with no increase in adverse events, according to a study published online Oct. 12 in *The Lancet*.

Yuanyuan Wang, Ph.D., from Monash University in Melbourne, Australia, and colleagues conducted a randomized, placebo-controlled trial involving participants aged 40 to 75 years with hand osteoarthritis and [magnetic resonance](#) imaging-detected synovitis of grade 1 or more. Participants were randomly assigned to receive [methotrexate](#) 20 mg or identical placebo once weekly for six months (50 and 47 patients, respectively).

The primary outcome was pain reduction in the study hand at six months; 84 and 85 percent of participants in the methotrexate and placebo groups, respectively, provided primary outcome data.

The researchers found that the mean change in visual analog scale [pain](#) at six months was  $-15.2$  mm in the methotrexate group and  $-7.7$  mm in the [placebo group](#), with a mean between-group difference of  $-9.9$  and effect size of 0.45. Adverse events occurred in 62 and 60 percent of participants in the methotrexate and placebo groups, respectively.

"These results support a potential role for methotrexate in the management of hand osteoarthritis with an inflammatory phenotype and highlight the importance of participant selection when testing therapies for hand osteoarthritis," the authors write.

**More information:** Yuanyuan Wang et al, Methotrexate to treat hand osteoarthritis with synovitis (METHODS): an Australian, multisite, parallel-group, double-blind, randomised, placebo-controlled trial, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(23\)01572-6](https://doi.org/10.1016/S0140-6736(23)01572-6)

Margreet Kloppenburg, Inflammation is a relevant treatment target in

osteoarthritis, *The Lancet* (2023). DOI:  
[10.1016/S0140-6736\(23\)01726-9](https://doi.org/10.1016/S0140-6736(23)01726-9)

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