

Chondroitin sulfate improves hand function, relieves morning stiffness caused by osteoarthritis

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New research shows that chondroitin sulfate significantly decreased pain and improved hand function in patients with osteoarthritis (OA) of the hand compared with those in the placebo group. Results of the clinical trial available today in *Arthritis & Rheumatism*, a journal published by Wiley-Blackwell on behalf of the American College of Rheumatology (ACR), also report that chondroitin sulfate improves grip strength and relieves morning stiffness.

The ACR estimates that OA-the most common form of [arthritis](#)-affects more than 27 million adults in the U.S., causing joint pain and stiffness. Approximately 10% of the world population, 60 years and older, have symptomatic osteoarthritis according to the Global Burden of Disease 2000 report from the World Health Organization (WHO). Prior studies have found that 20% to 30% of adults have OA of the hand, with the prevalence rising to more than 50% after 60 years of age.

"Although hand OA is highly prevalent among adults and can significantly impact the quality of life for sufferers, therapeutic options are still limited," said Cem Gabay, M.D., with University Hospitals of Geneva in Switzerland and lead investigation of the Finger [osteoArthritis Chondroitin](#) Treatment Study (FACTS). "There are few trials examining therapeutic approaches specific to hand OA and much of the available evidence has been extrapolated from studies investigating other forms of OA."

The single-center, placebo-controlled FACTS trial included 162 patients with radiographic hand OA who met inclusion criteria-spontaneous hand pain on the visual analogue scale (VAS) of 40 mm (scale 0-100) or more and Functional Index for Hand OA (FIHOA) level of 6 (scale 0-30). Participants received either 800 mg of chondroitin

sulfate (80 patients) or placebo (82 patients) once daily for 6 months.

Results showed that patients in the chondroitin sulfate group had significant decrease in global hand pain compared with the [placebo group](#), reflecting an 8.7 decrease on the VAS. Hand function also improved significantly for those taking chondroitin sulfate, decreasing more than 2 points on the FIHOA. Researchers also reported significantly improved hand function and reduction in morning stiffness for participants taking chondroitin sulfate versus placebo.

"Our findings show chondroitin sulfate is a safe and effective treatment for patients with hand OA," concluded Dr. Gabay. "Alternative therapies, such as nonsteroidal anti-inflammatory drugs (NSAIDs), provide similar pain reducing effects, but with considerably more long-term toxicities." Chondroitin sulfate is a naturally occurring molecule and a main component of joint cartilage. The chondroitin sulfate agent used in this study (Chondrosulf®) is licensed as a drug in Europe and not as a nutraceutical; in the U.S. chondroitin [sulfate](#) is sold as a supplement and often paired with glucosamine.

More information: Symptomatic Effect of Chondroitin Sulfate 4&6 in Hand Osteoarthritis: The Finger osteoArthritis Chondroitin Treatment Study (FACTS): A Randomized Double-Blind Placebo Controlled Clinical Trial." Cem Gabay, Carole Medinger-Sadowski, Danielle Gascon, Frank Kolo, Axel Finckh. *Arthritis & Rheumatism*; Published Online: September 6, 2011. [DOI:10.1002/art.30574](https://doi.org/10.1002/art.30574)

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