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Another Study of Chondroitin Sulfate for Knee Osteoarthritis

A prescription formulation, widely available in Europe, delayed progression of knee osteoarthritis, but pain benefits were less clear.

In the large NIH-funded GAIT study of osteoarthritic knee pain, glucosamine, chondroitin sulfate (CS), or both was no better than placebo in relieving pain or slowing the progression of joint-space narrowing ([JW Feb 28 2006](#) and [JW Oct 16 2008](#)). Now, researchers present the results of another CS study, which was sponsored by the manufacturer of a prescription preparation that is available in Europe.

A total of 622 patients with knee osteoarthritis were randomized to receive daily CS (800 mg) or placebo. During 2 years of follow-up, narrowing of medial tibiofemoral joint space was significantly less in the CS group than in the placebo group; the difference between groups became even greater during the second year of the study. Pain scores were significantly lower with CS than with placebo during the first year, but pain scores did not differ between groups in the second year.

Comment: Studies of glucosamine and chondroitin sulfate continue to generate conflicting findings. The authors of this study conclude rather decisively that CS retards the progression of knee osteoarthritis. Yet a puzzling finding was that, during the second year of the trial, the CS group continued to experience less progression of joint-space narrowing while its pain-relief advantage disappeared completely. Even results of a recent meta-analysis of pain relief with chondroitin were not straightforward ([JW May 10 2007](#)). In my view, whether CS provides clinically meaningful benefits for patients with knee osteoarthritis remains unclear.

— [Allan S. Brett, MD](#)

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Citation(s):

Kahan A et al. Long-term effects of chondroitins 4 and 6 sulfate on knee osteoarthritis: The Study on Osteoarthritis Progression Prevention, a two-year, randomized, double-blind, placebo-controlled trial. *Arthritis Rheum* 2009 Feb; 60:524.