

Arthritis Foundation Comment on the Effect of Glucosamine and/or Chondroitin Sulfate on the Progression of Knee Osteoarthritis

In October 2008, *Arthritis & Rheumatism* published a study on the effect of glucosamine and/or chondroitin sulfate on the progression of knee osteoarthritis. Osteoarthritis, the most common form of arthritis, currently affects 27 million of the 46 million people in the United States with arthritis. Recent data show that one in two Americans are at risk for knee osteoarthritis over their lifetime.

The Arthritis Foundation supports the use of evidence-based medicine. The new study is important for this reason. In this study, patients with well established osteoarthritis were randomized to treatment with standard doses of glucosamine, chondroitin, the combination of glucosamine and chondroitin, celecoxib, or placebo. Previous findings from this study suggest evidence that glucosamine and chondroitin were no better than placebo in reducing knee pain in the majority of people with osteoarthritis, but that the combination of the two supplements provided significant pain relief for people with moderate-to-severe knee osteoarthritis. In this phase of the study, researchers were attempting to determine whether any of the treatments had an effect on reducing the loss of cartilage that occurs with osteoarthritis over time.

Patients were followed for two years and repeated knee X-rays were done. The results revealed that none of the treatments slowed progression of the cartilage loss, although patients with the least severe radiological changes did show a slight trend to some protective effects of the drugs compared to placebo. Therefore, this study fails to support the use of glucosamine and chondroitin either singly or in combination as a treatment for advanced osteoarthritis. The study is limited by relatively small numbers of patients in each treatment group and a relatively short observation period. This study does not exclude the possibility that patients with very early osteoarthritis may benefit from these medications.

Based on the findings from this study, the Arthritis Foundation recommends that individuals with knee osteoarthritis speak to their doctors about whether combined glucosamine-chondroitin therapy might be a beneficial addition to their overall treatment plans.

In addition, the Arthritis Foundation recommends that people with arthritis work with their doctor to better understand the full range of treatment options and to develop a treatment plan that is best suited for their individual situation. The Arthritis Foundation offers evidence-based programs to help people with arthritis to manage their pain and become physically active to decrease symptoms of osteoarthritis. See arthritis.org for a listing of Arthritis Foundation programs in your community.

Along with physical activity, the Arthritis Foundation also stresses the importance of weight control to limit the impact of knee osteoarthritis. Obesity is a known risk factor for osteoarthritis in weight-bearing joints. For patients who are overweight, losing weight and becoming physically active will improve their pain and slow down progression of the disease.