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Evidence of the beneficial effects of glucosamine sulfate on knee osteoarthritis was documented in two three-year long studies. The research (published in the journal Menopause) evaluated the effect of glucosamine sulfate on long-term symptoms and joint structure in postmenopausal women with knee osteoarthritis.

GLUCOSAMINE SULFATE REDUCES OSTEOARTHRITIS PROGRESSION IN POSTMENOPAUSAL WOMEN

Two randomized, placebo-controlled studies consisted of 414 participants, of which 319 were postmenopausal women. Osteoarthritis symptoms and minimal joint space width were assessed at the beginning of the studies and evaluated again after 3 years. Symptoms were evaluated using a standard WOMAC index test, a group of questions that assesses the three dimensions of pain, disability, and stiffness in knee and hip osteoarthritis.

After 3 years, postmenopausal participants in the glucosamine sulfate group showed no joint space narrowing, whereas participants in the placebo group experienced a narrowing of -0.33 mm. Narrowing joint space indicates cartilage loss and worsening osteoarthritis. Percent changes after 3 years in the WOMAC index showed an improvement in the glucosamine sulfate group and a trend for worsening in the placebo group.

The results of these studies demonstrate that supplementation with glucosamine sulfate for osteoarthritis has a disease-modifying effect on postmenopausal women, the population most frequently affected by knee osteoarthritis.

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