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Glucosamine Ineffective for Lower Back Pain Linked to Arthritis

Study finds it's no better than placebo in relieving discomfort or boosting quality of life

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HealthDay

TUESDAY, July 6 (HealthDay News) -- The popular supplement glucosamine offers little or no relief for sufferers of chronic lower back pain caused by osteoarthritis, a new study finds.

The Norwegian trial seems to be another knock against glucosamine, with other recent studies showing similar results.

"The study answer the questions: 'I have suffered low back pain for a long time (more than 6 months), will a 6-month intake of glucosamine help me?'" said lead researcher Philip Wilkens, a research fellow in the orthopedic department at the University of Oslo. "And the answer according to this study is no."

On the up side, "glucosamine appears safe to use," he added. "And more research is needed to answer if glucosamine is beneficial to prevent chronic low

back pain or have benefits in longer term, like 5 to 10 years."

Osteoarthritis affects more than 20 million Americans, and the number is expected to increase, the researchers note. Glucosamine is a common over-the-counter treatment for osteoarthritis, even though its use has been controversial.

For example, a University of Pittsburgh study presented at a rheumatologists' meeting in October found the supplement did not prevent loss of cartilage in osteoarthritic knees, while studies published in 2008 in *Arthritis & Rheumatism* and the *Annals of Internal Medicine* found glucosamine had little or no effect on arthritis of the knee and hips, respectively.

The new report is published in the July 7 issue of the *Journal of the American Medical Association*.

For the study, Wilkens's team randomly assigned 250 patients with chronic back pain and degenerative lumbar osteoarthritis to 1,500 milligrams daily of glucosamine or an inactive placebo.

The patients' pain was measured using the Roland Morris Disability Questionnaire at 6 weeks, then again at 3, 6 and 12 months. In addition, the researchers evaluated the patients' self-reported quality of life.

At the start of the 6-month trial, patients taking glucosamine scored 9.2 on the pain scale while the patients taking placebo scored 9.7, the researchers note. At the 6-month point, both groups scored 5.0, and after one year the glucosamine group scored 4.8 while the placebo group scored 5.5, Wilkens's group found.

However, the small differences in scores at six months or one year were not statistically significant, the researchers say. Nor were minor differences in quality of life between the two groups deemed significant.

The bottom line, according to Wilkens: "People with chronic low back pain and degenerative osteoarthritis will not benefit more from glucosamine than placebo

for treating their back problem."

Dr. Andrew L. Avins, a scientist in the division of research at Kaiser Permanente Northern California and the author of an accompanying journal editorial, said that, "from a clinical standpoint, the study demonstrates that glucosamine does not appear to be better than placebo for patients with chronic low back pain and spinal arthritis."

However, the study found no ill effects from taking the supplement. So, patients who take glucosamine and feel that it is helping them should be reassured that it's at least not harmful, said Avins, who is also professor of medicine, epidemiology & biostatistics at the University of California, San Francisco.

"The larger implications [of this study] are that we still know very little about how to help most patients with chronic low back pain, and we need much more careful, directed research to help make progress in providing relief to patients with back pain," he added.

Even though back pain is an incredibly important public health and quality of life problem, it suffers from insufficient attention and research funding, Avins believes. "In the U.S., we spend far more on treatments of little or questionable value than we spend on research to find effective therapies; it's a poor use of scarce health-care resources," he said.

Dr. Andrew Sherman, an associate professor and vice-chair of the department of rehabilitation medicine at the University of Miami Leonard M. Miller School of Medicine, agreed that the findings should dissuade doctors from recommending glucosamine to patients with back pain.

However, "this [study] is not going to stop people from trying it," he added, and the finding does not mean that glucosamine won't work for other forms of arthritis.

SOURCES: Philip Wilkens, M.Chiro., research fellow, orthopedic department, University of Oslo, Norway; Andrew L. Avins, M.D., M.P.H., research scientist,

Division of Research, Kaiser Permanente Northern California, professor, of medicine, epidemiology & biostatistics, University of California, San Francisco; Andrew Sherman, M.D., associate professor and vice-chair, department of rehabilitation medicine, University of Miami Leonard M. Miller School of Medicine, July 7, 2010, *Journal of the American Medical Association*

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