

# Glucosamine negatively affects lumbar discs

June 29 2013

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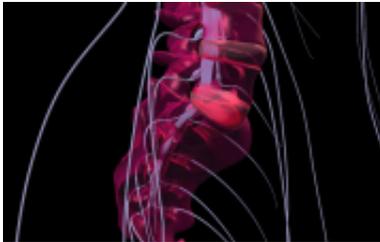


Image courtesy of Blausen Medical

Glucosamine supplementation, which is often used for low back pain, has a detrimental effect on lumbar disc matrix homeostasis in an animal model of disc degeneration, according to a study published in the May 20 issue of *Spine*.

(HealthDay)—Glucosamine supplementation, which is often used for low back pain, has a detrimental effect on lumbar disc matrix homeostasis in an animal model of disc degeneration, according to a study published in the May 20 issue of *Spine*.

To examine the effect of glucosamine supplementation on intervertebral disc degeneration, Lloydine Jacobs, M.D., from the University of Pittsburgh Medical Center, and colleagues induced [lumbar disc degeneration](#) in rabbits and treated them with oral glucosamine at 107 mg/day.

After 20 weeks, the researchers found that injured discs from glucosamine-treated animals had lower magnetic resonance imaging indices and [nucleus pulposus](#) areas compared with animals with injured

discs without glucosamine supplementation. Glucosamine-treated animals also had reduced glycosaminoglycan as determined by histological and glycosaminoglycan content, and gene expression further supported a detrimental effect of glucosamine on matrix.

"These data demonstrate that the net effect on matrix in an animal model in vivo, as measured by gene expression, [magnetic resonance imaging](#), histology, and total proteoglycan, is antianabolic," Jacobs and colleagues conclude. "This raises concern about this commonly used supplement, and future research is needed to establish the clinical relevance of these findings."

**More information:** [Abstract](#)  
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