

Glucosamine negatively affects lumbar discs

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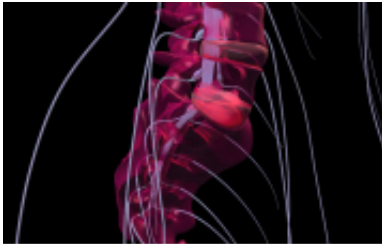


Image courtesy of Blausen Medical

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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